

**TTL STANDARD
COMPONENTS LIBRARY**
Schematic Symbols

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p-cad[®]
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OVERVIEW

This manual and the sixteen TTL Components Schematic Symbol Diskettes comprise the P-CAD TTL Components Schematic Symbols Library. The library has been developed at the request of our users, and we welcome any suggestions for improvements or additions.

The library diskettes contain the following files for use with the PC-CAPS schematic capture program:

- Component files
- Layer structure file, LAYS.SCH
- Standard-size drawing sheet files, ASIZE.SCH through ESIZE.SCH
- 7400.FIL and 7400.LIB files

The 7400.FIL file is a sample text file for input into PREPACK to create the binary file 7400.LIB for packaging information for PC-PACK. 7400.FIL and 7400.LIB contain all the components in the TTL Library. Normal usage is to extract only those components used in a design and put them in a new .FIL file for input to PREPACK.

Storage of these files in a practical and efficient directory structure is discussed in the next section of this manual. The following section, "Creating a Design," tells you how to use the files with PC-CAPS.

The remainder of the manual is devoted to lists of components by sequence and function, component pin sequences, and component plots.

FILE MANAGEMENT

The complete TTL Symbols Library includes more than 4.6 MB of files. If you are loading the library on the hard disk of your stand-alone computer, you should omit any of the technologies that you will not need to conserve disk space. This is especially important if you are using a 10 MB hard disk. To make it easy for you to omit the technologies you do not need, they are supplied on separate floppy disks.

If your hard disk space is very limited, you may remove individual unneeded components from the library. Each component is contained in a separate DOS file, and individual components may be erased using the DOS erase command. Refer to your Disk Operating System (DOS) Manual or the "DOS Reference" chapter in your PC-CAPS or PC-CARDS User's Manuals for instructions on listing and erasing files.

P-CAD recommends a specific directory structure for efficient system operation. Your library symbols are normally placed in a specific subdirectory to make it easy to manage these files. The directory structure is described in your P-CAD Installation Guide.

CREATING A DESIGN

To use the library in a design, run PC-CAPS. Instructions are given in the "Using PC-CAPS" chapter of your PC-CAPS User's Manual. When the menu is displayed, select FILE/LOAD and load the layer structure. You can load LAYS.SCH or one of the standard-size drawing sheet files, ASIZE.SCH through ESIZE.SCH.

Layer Structure

The following layer structure, LAYS.SCH, is a standard P-CAD layer structure and is recommended when you create library components.

Layer	Name	Pen	Status	Use
1	WIRES	1	ABL (A)	Interconnecting wires
2	BUS	2	ABL	Interconnecting busses/wires
3	GATE	3	ON	Symbol graphics (ANSII)
4	IEEE	3	OFF	Symbol graphics (IEEE)
5	PINFUN	3	OFF	Pin functions (IEEE)
6	PINNUM	4	ON	Pin numbers

Layer	Name	Pen	Status	Use
7	PINNAM	3	ON	Pin names
8	PINCON	4	ON	Pin connections
9	REFDES	5	ON	Reference designator
10	ATTR	6	OFF	Visible attributes
11	SDOT	1	OFF	Solder dots (not used)
12	DEVICE	6	ON	Device name
13	OUTLIN	6	OFF	Component outline
14	ATTR2	7	OFF	Invisible attributes
15	NOTES	7	OFF	Notes/text/ documentation
16	NETNAM	8	ABL	Net/signal names (schematic)
17	CMPNAM	8	OFF	Component instance names
18	BORDER	9	ON	Drawing/schematic border

Drawing Sheets

The standard-size drawing sheet files, ASIZE.SCH through ESIZE.SCH were created using the LAYS.SCH layer structure. When loaded, they provide the correct layer structure for the library plus a standard-size drawing sheet border.

Components

When you have loaded your layer structure or drawing sheet file, you can enter the symbols, wires, text, instances, and net names. Complete instructions are given in the "Using PC-CAPS" chapter of your PC-CAPS User's Manual. Each PC-CAPS component contains the electrical "intelligence" required to create schematics and extract data.

GENERAL INFORMATION

This library is comprised of symbols from six technologies:

1. Standard
2. Advanced Low Power Schottky (ALS)
3. Advanced Schottky (AS)
4. Fairchild's Advanced Schottky TTL (FAST)
5. Low Power Schottky (LS)
6. Schottky (S)

This library was created using the Texas Instruments Inc. TTL data books, volumes one, two, and three, for most of the components. The Fairchild Semiconductor FAST data book was used to create the 74Fnnn components.

Thirty-three DeMorgan Equivalent symbols are included in the library. These symbols are differentiated by a "D" in their names. For example, 74LS132D.SYM is the DeMorgan Equivalent of 74LS132.SYM.

The IEEE representations of some devices are contained in separate files because the IEEE representations could not fit behind the ANSI representations. The IEEE files are differentiated by an "E" in their names. For example, 7474E.SYM is the IEEE representation of 7474.SYM.

It was necessary to place the IEEE symbols in separate files because the amount of text to be drawn inside the symbol exceeded the standard width of the ANSI symbol. Also for some symbols the IEEE and the ANSI representations do not have compatible pin placement. For example, in the case of flip-flops the ANSI representations show preset and clear at top and bottom whereas the IEEE representations show them on the left side of the symbol in the control box.

Due to system limitations on filename length, the filenames used for the ALS components are shortened versions of the component names. For example, 74ALS112A is named ALS112A.SYM.

NAMING CONVENTIONS

In this library, most of the signal names are drawn exactly as shown in the data books, but an abbreviated form of the name may have been entered as the actual signal name. For example, the signal name READY may visually appear as READY on the symbol, but its actual entered name may be RDY. The actual signal names for the symbols are given in the pinlists in this manual.

Throughout this library the following signal naming conventions are used.

- (a) The CLOCK signal was abbreviated as CP.
- (b) The / sign was replaced by a -.
- (c) The > sign was replaced by .GT.
- (d) The = sign was replaced by .EQ.
- (e) The < sign was replaced by .LT.

COMPONENT LIST BY SEQUENCE

The component filename is the component number plus the extension .SYM; for example 74LS490.SYM. "Plot Number" refers to the plots in the last section of this manual.

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
7400	1	1/1E
7401	1	1/1E
7402	1	1/1E
7403	1	1/1E
7404	1	1/1E
7405	1	1/1E
7406	1	1/1E
7407	1	1/1E
7408	1	1/1E
7409	1	1/1E
7410	1	1/1E
7412	1	1/1E
7413	1	1/1E
7414	1	1/1E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
7416	1	2/2E
7417	1	2/2E
7420	1	2/2E
7422	1	2/2E
7425	1	2/2E
7426	1	2/2E
7427	1	2/2E
7428	1	2/2E
7430	1	2/2E
7432	1	2/2E
7433	1	2/2E
7437	1	2/2E
7438	1	2/2E
7439	1	2/2E
7440	1	2/2E
7442A	1	2/2E
7443A	1	2/2E
7444A	1	2/2E
7445	1	2/2E
7446A	1	2/2E
7447A	1	3/3E
7448	1	3/3E
7449	1	3/3E
7451	1	3/3E
7454	1	3/3E
7470	1	3/3E
7472	1	3/3E
7473	1	3/
7473E	1	/3E
7474	1	3/
7474E	1	/3E
7475	1	3/3E
7476	1	3/
7476E	1	/3E
7480	1	3/3E
7482	1	4/4E
7483A	1	4/4E
7485	1	4/4E
7486	1	4/4E
7490A	1	4/4E
7491A	1	4/4E
7492A	1	4/4E
7493A	1	4/4E
7494	1	4/4E
7495A	1	4/4E
7496	1	4/4E
7497	1	4/4E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74100	1	5/5E
74104	1	5/5E
74105	1	5/5E
74107	1	5/
74107E	1	/5E
74109	1	5/
74109E	1	/5E
74110	1	5/5E
74111	1	5/5E
74116	1	5/5E
74120	1	5/5E
74121	1	5/5E
74122	1	5/5E
74123	1	5/5E
74125	1	5/5E
74126	1	5/5E
74128	1	6/6E
74132	1	6/6E
74136	1	6/6E
74141	1	6/6E
74142	1	6/
4142E	1	/6E
74143	2	6/
74143E	2	/6E
74144	2	6/
74144E	2	/6E
74145	2	7/7E
74147	2	7/7E
74148	2	7/7E
74150	2	7/7E
74151A	2	7/7E
74153	2	7/7E
74154	2	7/7E
74155	2	7/7E
74156	2	8/8E
74157	2	8/8E
74159	2	8/8E
74160	2	8/8E
74161	2	8/8E
74162	2	8/8E
74163	2	8/8E
74164	2	8/8E
74165	2	8/8E
74166	2	8/8E
74167	2	8/8E
74170	2	8/8E
74172	2	8/8E
74173	2	8/8E
74174	2	8/8E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74175	2	9/9E
74176	2	9/9E
74177	2	9/9E
74178	2	9/9E
74179	2	9/9E
74180	2	9/9E
74181	2	9/9E
74182	2	9/9E
74184	2	9/9E
74185A	2	9/9E
74190	2	9/9E
74191	2	9/9E
74192	2	9/9E
74193	2	9/9E
74194	2	9/9E
74195	2	9/9E
74196	2	9/9E
74197	2	10/10E
74198	2	10/10E
74199	2	10/10E
74221	2	10/10E
74246	2	10/10E
74247	2	10/10E
74248	2	10/10E
74249	2	10/10E
74251	2	10/10E
74259	2	10/10E
74265	2	10/10E
74273	2	10/10E
74276	2	11/11E
74278	2	11/11E
74279	2	11/11E
74283	2	11/11E
74285	2	11/11E
74290	2	11/11E
74293	2	11/11E
74298	2	11/11E
74351	2	11/11E
74365A	2	11/11E
74366A	2	11/11E
74367A	3	12/12E
74368A	3	12/12E
74376	3	12/12E
74390	3	12/12E
74393	3	12/12E
74425	3	12/12E
74426	3	12/12E
74490	3	12/12E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74ALS00A	4	ALS1/ALS1E
74ALS01	4	ALS1/ALS1E
74ALS02	4	ALS1/ALS1E
74ALS03A	4	ALS1/ALS1E
74ALS04A	4	ALS1/ALS1E
74ALS05A	4	ALS1/ALS1E
74ALS08	4	ALS1/ALS1E
74ALS09	4	ALS1/ALS1E
74ALS10	4	ALS1/ALS1E
74ALS11	4	ALS1/ALS1E
74ALS12	4	ALS1/ALS1E
74ALS15	4	ALS1/ALS1E
74ALS20A	4	ALS2/ALS2E
74ALS21	4	ALS2/ALS2E
74ALS22A	4	ALS2/ALS2E
74ALS27	4	ALS2/ALS2E
74ALS28A	4	ALS2/ALS2E
74ALS30	4	ALS2/ALS2E
74ALS32	4	ALS2/ALS2E
74ALS33A	4	ALS2/ALS2E
74ALS344	4	ALS2/ALS2E
74ALS35	4	ALS2/ALS2E
74ALS37A	4	ALS2/ALS2E
74ALS38A	4	ALS2/ALS2E
74ALS40A	4	ALS2/ALS2E
74ALS74	4	ALS2/
74ALS74E	4	/ALS2E
74ALS86	4	ALS3/ALS3E
74ALS109	4	ALS3/
ALS109E	4	/ALS3E
74ALS112A	4	ALS3/
ALS112E	4	/ALS3E
74ALS113A	4	ALS3/
ALS113E	4	/ALS3E
74ALS114A	4	ALS3/
ALS114E	4	/ALS3E
74ALS131	4	ALS3/ALS3E
74ALS133	4	ALS3/ALS3E
74ALS137	4	ALS3/ALS3E
74ALS138	4	ALS3/ALS3E
74ALS139	4	ALS3/ALS3E
74ALS151	4	ALS3/ALS3E
74ALS153	4	ALS3/ALS3E
74ALS157	4	ALS3/ALS3E
74ALS158	4	ALS3/ALS3E
74ALS160A	4	ALS3/ALS3E
74ALS161A	4	ALS3/ALS3E
74ALS162A	4	ALS4/ALS4E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74ALS163A	4	ALS4/ALS4E
74ALS164	4	ALS4/ALS4E
74ALS165	4	ALS4/ALS4E
74ALS166	4	ALS4/ALS4E
74ALS168A	4	ALS4/ALS4E
74ALS169A	4	ALS4/ALS4E
74ALS174	4	ALS4/ALS4E
74ALS175	4	ALS4/ALS4E
74ALS190	4	ALS4/ALS4E
74ALS191	4	ALS4/ALS4E
74ALS192	4	ALS4/ALS4E
74ALS193	4	ALS4/ALS4E
74ALS240A	4	ALS4/ALS4E
74ALS241A	4	ALS4/ALS4E
74ALS242A	4	ALS5/ALS5E
74ALS243A	4	ALS5/ALS5E
74ALS244A	4	ALS5/ALS5E
74ALS245A	4	ALS5/ALS5E
74ALS251	4	ALS5/ALS5E
74ALS253	4	ALS5/ALS5E
74ALS257B	4	ALS5/ALS5E
74ALS258	4	ALS5/ALS5E
74ALS259	4	ALS5/ALS5E
74ALS273	4	ALS5/ALS5E
74ALS299	4	ALS5/ALS5E
74ALS323	4	ALS6/ALS6E
74ALS352	4	ALS6/ALS6E
74ALS353	4	ALS6/ALS6E
74ALS365	4	ALS6/ALS6E
74ALS366	4	ALS6/ALS6E
74ALS367	4	ALS6/ALS6E
74ALS368	4	ALS6/ALS6E
74ALS373	4	ALS6/ALS6E
74ALS374	4	ALS6/ALS6E
74ALS465A	5	ALS6/ALS6E
74ALS466A	5	ALS7/ALS7E
74ALS467A	5	ALS7/ALS7E
74ALS468A	5	ALS7/ALS7E
74ALS518	5	ALS7/ALS7E
74ALS519	5	ALS7/ALS7E
74ALS520	5	ALS7/ALS7E
74ALS521	5	ALS7/ALS7E
74ALS522	5	ALS7/ALS7E
74ALS526	5	ALS7/ALS7E
74ALS527	5	ALS7/ALS7E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74ALS528	5	ALS7/ALS7E
74ALS533	5	ALS7/ALS7E
74ALS534	5	ALS7/ALS7E
74ALS538	5	ALS8/ALS8E
74ALS539	5	ALS8/ALS8E
74ALS540	5	ALS8/ALS8E
74ALS541	5	ALS8/ALS8E
74ALS560A	5	ALS8/ALS8E
74ALS561A	5	ALS8/ALS8E
74ALS563	5	ALS8/ALS8E
74ALS564	5	ALS8/ALS8E
74ALS568A	5	ALS8/ALS8E
74ALS569A	5	ALS9/ALS9E
74ALS573	5	ALS9/ALS9E
74ALS574	5	ALS9/ALS9E
74ALS575	5	ALS9/ALS9E
74ALS576	5	ALS9/ALS9E
74ALS577	5	ALS9/ALS9E
74ALS580	5	ALS10/ALS10E
74ALS620A	5	ALS10/ALS10E
74ALS621A	5	ALS10/ALS10E
74ALS622A	5	ALS10/ALS10E
74ALS623A	5	ALS10/ALS10E
74ALS638	5	ALS10/ALS10E
74ALS639	5	ALS11/ALS11E
74ALS640A	5	ALS11/ALS11E
74ALS641A	5	ALS11/ALS11E
74ALS642A	5	ALS11/ALS11E
74ALS643A	5	ALS11/ALS11E
74ALS644A	5	ALS11/ALS11E
74ALS645A	5	ALS12/ALS12E
74ALS646	5	ALS12/ALS12E
74ALS647	5	ALS12/ALS12E
74ALS648	5	ALS13/ALS13E
74ALS649	5	ALS13/ALS13E
74ALS651	5	ALS14/ALS14E
74ALS652	5	ALS14/ALS14E
74ALS653	5	ALS15/ALS15E
74ALS654	5	ALS15/ALS15E
74ALS688	5	ALS15/ALS15E
74ALS689	5	ALS15/ALS15E
74ALS804	5	ALS16/ALS16E
74ALS805	5	ALS16/ALS16E
74ALS808	5	ALS16/ALS16E
74ALS832	5	ALS16/ALS16E
74ALS841	5	ALS17/ALS17E
74ALS842	5	ALS17/ALS17E
74ALS843	5	ALS17/ALS17E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74ALS844	5	ALS17/ALS17E
74ALS845	5	ALS17/ALS17E
74ALS846	5	ALS17/ALS17E
74ALS857	5	ALS17/ALS17E
74ALS873	5	ALS18/ALS18E
74ALS874	5	ALS18/ALS18E
74ALS876	5	ALS18/ALS18E
74ALS878	5	ALS18/ALS18E
74ALS879	5	ALS18/ALS18E
74ALS880	5	ALS18/ALS18E
74AS00	6	AS1/AS1E
74AS02	6	AS1/AS1E
74AS04	6	AS1/AS1E
74AS08	6	AS1/AS1E
74AS10	6	AS1/AS1E
74AS11	6	AS1/AS1E
74AS20	6	AS1/AS1E
74AS21	6	AS1/AS1E
74AS27	6	AS1/AS1E
74AS30	6	AS1/AS1E
74AS32	6	AS1/AS1E
74AS34	6	AS1/AS1E
74AS74	6	AS1/
74AS74E	6	/AS1E
74AS95	6	AS1/AS1E
74AS109	6	AS2/
74AS109E	6	/AS2E
74AS112	6	AS2/
74AS112E	6	/AS2E
74AS113	6	AS2/
74AS113E	6	/AS2E
74AS114	6	AS2/
74AS114E	6	/AS2E
74AS131	6	AS2/AS2E
74AS137	6	AS2/AS2E
74AS138	6	AS2/AS2E
74AS139	6	AS2/AS2E
74AS151	6	AS2/AS2E
74AS153	6	AS2/AS2E
74AS157	6	AS2/AS2E
74AS158	6	AS2/AS2E
74AS160	6	AS3/AS3E
74AS161	6	AS3/AS3E
74AS162	6	AS3/AS3E
74AS163	6	AS3/AS3E
74AS168	6	AS3/AS3E
74AS169	6	AS3/AS3E
74AS174	6	AS3/AS3E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74AS175	6	AS3/AS3E
74AS181A	6	AS3/AS3E
74AS182	6	AS3/AS3E
74AS194	6	AS3/AS3E
74AS195	6	AS3/AS3E
74AS230	6	AS3/AS3E
74AS231	6	AS3/AS3E
74AS240	6	AS4/AS4E
74AS241	6	AS4/AS4E
74AS242	6	AS4/AS4E
74AS243	6	AS4/AS4E
74AS244	6	AS4/AS4E
74AS245	6	AS4/AS4E
74AS250	6	AS5/AS5E
74AS251	6	AS5/AS5E
74AS253	6	AS5/AS5E
74AS257	6	AS5/AS5E
74AS258	6	AS5/AS5E
74AS264	6	AS5/AS5E
74AS280	6	AS5/AS5E
74AS282	6	AS5/AS5E
74AS286	6	AS5/AS5E
74AS298	6	AS6/AS6E
74AS299	6	AS6/AS6E
74AS323	6	AS6/AS6E
74AS352	6	AS6/AS6E
74AS353	6	AS6/AS6E
74AS373	6	AS6/AS6E
74AS374	6	AS6/AS6E
74AS395	6	AS6/AS6E
74AS533	6	AS6/AS6E
74AS534	6	AS7/AS7E
74AS573	6	AS7/AS7E
74AS574	6	AS7/AS7E
74AS575	6	AS7/AS7E
74AS576	6	AS7/AS7E
74AS577	6	AS7/AS7E
74AS580	6	AS7/AS7E
74AS620	6	AS8/AS8E
74AS621	6	AS8/AS8E
74AS622	6	AS8/AS8E
74AS623	7	AS8/AS8E
74AS638	7	AS9/AS9E
74AS639	7	AS9/AS9E
74AS640	7	AS9/AS9E
74AS641	7	AS10/AS10E
74AS642	7	AS10/AS10E
74AS643	7	AS10/AS10E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74AS644	7	AS10/AS10E
74AS645	7	AS10/AS10E
74AS646	7	AS11/AS11E
74AS648	7	AS11/AS11E
74AS651	7	AS12/AS12E
74AS652	7	AS12/AS12E
74AS756	7	AS13/AS13E
74AS757	7	AS13/AS13E
74AS758	7	AS13/AS13E
74AS759	7	AS13/AS13E
74AS760	7	AS13/AS12E
74AS762	7	AS13/AS13E
74AS763	7	AS13/AS13E
74AS800	7	AS13/AS13E
74AS802	7	AS13/AS13E
74AS804A	7	AS13/AS13E
74AS805A	7	AS14/AS14E
74AS808A	7	AS14/AS14E
74AS821	7	AS14/AS14E
74AS822	7	AS14/AS14E
74AS823	7	AS14/AS14E
74AS824	7	AS14/AS14E
74AS825	7	AS14/AS14E
74AS826	7	AS14/AS14E
74AS832A	7	AS14/AS14E
74AS841	7	AS14/AS14E
74AS842	7	AS14/AS14E
74AS843	7	AS14/AS14E
74AS844	7	AS15/AS15E
74AS845	7	AS15/AS15E
74AS846	7	AS15/AS15E
74AS850	7	AS15/AS15E
74AS851	7	AS15/AS15E
74AS857	7	AS15/AS15E
74AS866	7	AS15/AS15E
74AS867	7	AS15/AS15E
74AS869	7	AS15/AS15E
74AS870	7	AS16/
74AS871	7	/AS16E
74AS871E	7	AS16/
74AS873	7	/AS16E
74AS874	7	AS16/AS16E
74AS876	7	AS16/AS16E
74AS878	7	AS17/AS17E
74AS879	7	AS17/AS17E
74AS880	7	AS17/AS17E
74AS881A	7	AS17/AS17E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74AS882	7	AS17/AS17E
74AS885	7	AS17/AS17E
74F00	8	F1/F1E
74F02	8	F1/F1E
74F04	8	F1/F1E
74F08	8	F1/F1E
74F10	8	F1/F1E
74F11	8	F1/F1E
74F13	8	F1/F1E
74F14	8	F1/F1E
74F20	8	F1/F1E
74F32	8	F1/F1E
74F37	8	F1/F1E
74F38	8	F1/F1E
74F40	8	F1/F1E
74F64	8	F2/F2E
74F74	8	F2/
74F74E	8	/F2E
74F85	8	F2/F2E
74F86	8	F2/F2E
74F109	8	F2/
74F109E	8	/F2E
74F112	8	F2/
74F112E	8	/F2E
74F113	8	F2/
74F113E	8	/F2E
74F114	8	F2/
74F114E	8	/F2E
74F132	8	F2/F2E
74F138	8	F2/F2E
74F139	8	F2/F2E
74F148	8	F2/F2E
74F151A	8	F2/F2E
74F153	8	F2/F2E
74F157A	8	F3/F3E
74F158A	8	F3/F3E
74F160A	8	F3/F3E
74F161A	8	F3/F3E
74F162A	8	F3/F3E
74F163A	8	F3/F3E
74F164	8	F3/F3E
74F168	8	F3/F3E
74F169	8	F3/F3E
74F174	8	F3/F3E
74F175	8	F3/F3E
74F181	8	F4/F4E
74F182	8	F4/F4E
74F190	8	F4/F4E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74F191	8	F4/F4E
74F192	8	F4/F4E
74F193	8	F4/F4E
74F194	8	F4/F4E
74F195	8	F4/F4E
74F240	8	F4/F4E
74F241	8	F5/F5E
74F242	8	F5/F5E
74F243	8	F5/F5E
74F244	8	F5/F5E
74F245	8	F5/F5E
74F251A	8	F5/F5E
74F253	8	F5/F5E
74F256	8	F5/F5E
74F257	8	F5/F5E
74F258	8	F5/F5E
74F259	8	F6/F6E
74F269	8	F6/F6E
74F273	8	F6/F6E
74F280	8	F6/F6E
74F283	8	F6/F6E
74F298	8	F6/F6E
74F299	8	F6/F6E
74F322	8	F6/F6E
74F323	8	F6/F6E
74F350	8	F6/F6E
74F352	8	F6/F6E
74F353	8	F6/F6E
74F365	8	F7/F7E
74F366	8	F7/F7E
74F367	8	F7/F7E
74F368	8	F7/F7E
74F373	9	F7/F7E
74F374	9	F7/F7E
74F377	9	F7/F7E
74F378	9	F7/F7E
74F379	9	F7/F7E
74F381	9	F8/F8E
74F382	9	F8/F8E
74F384	9	F8/F8E
74F385	9	F8/F8E
74F395	9	F8/F8E
74F398	9	F8/F8E
74F399	9	F8/F8E
74F401	9	F8/F8E
74F402	9	F8/F8E
74F403	9	F8/F8E
74F407	9	F8/F8E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74F410	9	F8/F8E
74F411	9	F8/F8E
74F413	9	F8/F8E
74F418	9	F8/F8E
74F420	9	F9/F9E
74F432	9	F9/F9E
74F433	9	F9/F9E
74F505	9	F9/F9E
74F521	9	F9/F9E
74F524	9	F9/F9E
74F525	9	F9/F9E
74F533	9	F9/F9E
74F534	9	F9/F9E
74F537	9	F10/F10E
74F538	9	F10/F10E
74F539	9	F10/F10E
74F540	9	F10/F10E
74F541	9	F10/F10E
74F543	9	F10/F10E
74F544	9	F10/F10E
74F545	9	F10/F10E
74F547	9	F11/F11E
74F548	9	F11/F11E
74F550	9	F11/F11E
74F551	9	F11/F11E
74F563	9	F11/F11E
74F564	9	F11/F11E
74F568	9	F11/F11E
74F569	9	F11/F11E
74F573	9	F11/F11E
74F574	9	F11/F11E
74F579	9	F12/F12E
74F582	9	F12/F12E
74F583	9	F12/F12E
74F588	9	F12/F12E
74F604	9	F12/F12E
74F610	9	F12/F12E
74F612	9	F12/F12E
74F620	9	F12/F12E
74F623	9	F12/F12E
74F630	9	F12/F12E
74F632	9	F12/F12E
74F646	9	F13/F13E
74F648	9	F14/F14E
74F655	9	F14/F14E
74F656	9	F14/F14E
74F657	9	F14/F14E
74F673A	9	F14/F14E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74F674	9	F14/F14E
74F675A	9	F14/F14E
74F676	9	F14/F14E
74F779	9	F14/F14E
74F784	9	F14/F14E
74F821	9	F15/F15E
74F823	9	F15/F15E
74F825	10	F15/F15E
74F827	10	F15/F15E
74F828	10	F15/F15E
74F841	10	F15/F15E
74F843	10	F15/F15E
74F845	10	F15/F15E
74LS00	11	LS1/LS1E
74LS01	11	LS1/LS1E
74LS02	11	LS1/LS1E
74LS03	11	LS1/LS1E
74LS04	11	LS1/LS1E
74LS05	11	LS1/LS1E
74LS08	11	LS1/LS1E
74LS09	11	LS1/LS1E
74LS10	11	LS1/LS1E
74LS11	11	LS1/LS1E
74LS12	11	LS1/LS1E
74LS13	11	LS1/LS1E
74LS14	11	LS1/LS1E
74LS15	11	LS1/LS1E
74LS18	11	LS1/LS1E
74LS19	11	LS2/LS2E
74LS20	11	LS2/LS2E
74LS21	11	LS2/LS2E
74LS22	11	LS2/LS2E
74LS24	11	LS2/LS2E
74LS26	11	LS2/LS2E
74LS27	11	LS2/LS2E
74LS28	11	LS2/LS2E
74LS30	11	LS2/LS2E
74LS32	11	LS2/LS2E
74LS33	11	LS2/LS2E
74LS37	11	LS2/LS2E
74LS38	11	LS2/LS2E
74LS40	11	LS2/LS2E
74LS42	11	LS3/LS3E
74LS47	11	LS3/
74LS47E	11	/LS3E
74LS48	11	LS3/
74LS48E	11	/LS3E
74LS49	11	LS3/LS3E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS51	11	LS3/LS3E
74LS54	11	LS3/LS3E
74LS55	11	LS3/LS3E
74LS56	11	LS3/LS3E
74LS57	11	LS3/LS3E
74LS68	11	LS3/LS3E
74LS69	11	LS3/LS3E
74LS73A	11	LS3/
74LS73AE	11	/LS3E
74LS74	11	LS3/
74LS74AE	11	/LS3E
74LS75	11	LS3/LS3E
74LS76A	11	LS3/
74LS76AE	11	/LS3E
74LS78A	11	LS4/LS4E
74LS83A	11	LS4/LS4E
74LS85	11	LS4/LS4E
74LS86	11	LS4/LS4E
74LS90	11	LS4/LS4E
74LS91	11	LS4/LS4E
74LS92	11	LS4/LS4E
74LS93	11	LS4/LS4E
74LS95B	11	LS4/LS4E
74LS96	11	LS4/LS4E
74LS107	11	LS4/
74LS107E	11	/LS4E
74LS109A	11	LS4/
74LS109E	11	/LS4E
74LS112A	11	LS4/
74LS112E	11	/LS4E
74LS113A	11	LS4/
74LS113E	11	/LS4E
74LS114A	11	LS4/
74LS114E	11	/LS4E
74LS122	11	LS5/LS5E
74LS123	11	LS5/LS5E
74LS125A	11	LS5/LS5E
74LS126A	11	LS5/LS5E
74LS132	11	LS5/LS5E
74LS136	11	LS5/LS5E
74LS137	11	LS5/LS5E
74LS138	11	LS5/LS5E
74LS139	11	LS5/LS5E
74LS145	11	LS5/LS5E
74LS147	11	LS5/LS5E
74LS148	11	LS5/LS5E
74LS151	11	LS5/LS5E
74LS153	11	LS5/LS5E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS155A	11	LS5/LS5E
74LS156	12	LS5/LS5E
74LS157	12	LS6/LS6E
74LS158	12	LS6/LS6E
74LS160A	12	LS6/LS6E
74LS161A	12	LS6/LS6E
74LS162A	12	LS6/LS6E
74LS163A	12	LS6/LS6E
74LS164	12	LS6/LS6E
74LS165	12	LS6/LS6E
74LS166A	12	LS6/LS6E
74LS169B	12	LS6/LS6E
74LS170	12	LS6/LS6E
74LS171	12	LS6/LS6E
74LS173A	12	LS6/LS6E
73LS174	12	LS7/LS7E
74LS175	12	LS7/LS7E
74LS181	12	LS7/LS7E
74LS183	12	LS7/LS7E
74LS190	12	LS7/LS7E
74LS191	12	LS7/LS7E
74LS192	12	LS7/LS7E
74LS193	12	LS7/LS7E
74LS194A	12	LS7/LS7E
74LS195A	12	LS7/LS7E
74LS196	12	LS7/LS7E
74LS197	12	LS7/LS7E
74LS221	12	LS7/LS7E
74LS240	12	LS8/LS8E
74LS241A	12	LS8/LS8E
74LS242	12	LS8/LS8E
74LS243	12	LS8/LS8E
74LS244	12	LS8/LS8E
74LS245	12	LS8/LS8E
74LS247	12	LS8/LS8E
74LS248	12	LS8/LS8E
74LS249	12	LS9/LS9E
74LS251	12	LS9/LS9E
74LS253	12	LS9/LS9E
74LS257B	12	LS9/LS9E
74LS258B	12	LS9/LS9E
74LS259	12	LS9/LS9E
74LS261	12	LS9/LS9E
74LS266	12	LS9/LS9E
74LS273	12	LS9/LS9E
74LS279A	12	LS9/LS9E
74LS280	12	LS9/LS9E
74LS283	12	LS9/LS9E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS290	12	LS9/LS9E
74LS292	12	LS9/LS9E
74LS293	12	LS9/LS9E
74LS294	12	LS9/LS9E
74LS295B	12	LS10/LS10E
74LS298	12	LS10/LS10E
74LS299	12	LS10/LS10E
74LS321	12	LS10/LS10E
74LS322A	12	LS10/LS10E
74LS323	12	LS10/LS10E
74LS347	12	LS10/LS10E
74LS348	12	LS10/LS10E
74LS352	12	LS10/LS10E
74LS353	12	LS10/LS10E
74LS354	12	LS10/LS10E
74LS355	12	LS10/LS10E
74LS356	12	LS10/LS10E
74LS357	12	LS11/LS11E
74LS363	12	LS11/LS11E
74LS364	12	LS11/LS11E
74LS365A	12	LS11/LS11E
74LS366A	12	LS11/LS11E
74LS367A	13	LS11/LS11E
74LS368A	13	LS11/LS11E
74LS373	13	LS11/LS11E
74LS374	13	LS12/LS12E
74LS375	13	LS12/LS12E
74LS377	13	LS12/LS12E
74LS378	13	LS12/LS12E
74LS379	13	LS12/LS12E
74LS381	13	LS12/LS12E
74LS382	13	LS12/LS12E
74LS384	13	LS12/LS12E
74LS385	13	LS13/LS13E
74LS386	13	LS13/LS13E
74LS390	13	LS13/LS13E
74LS393	13	LS13/LS13E
74LS395A	13	LS13/LS13E
74LS396	13	LS13/LS13E
74LS398	13	LS13/LS13E
74LS399	13	LS13/LS13E
74LS422	13	LS13/
74LS422E	13	/LS13E
74LS423	13	LS13/LS13E
74LS440	13	LS14/
74LS440E	13	/LS14E
74LS441	13	LS14/
74LS441E	13	/LS14E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS442	13	LS15/
74LS442E	13	/LS15E
74LS443	13	LS15/
74LS443E	13	/LS15E
74LS444	13	LS16/
74LS444E	13	/LS16E
74LS445	13	LS16/LS16E
74LS446	13	LS16/LS16E
74LS447	13	LS16/LS16E
74LS448	13	LS16/
74LS448E	13	/LS16E
74LS449	13	LS17/LS17E
74LS465	13	LS17/LS17E
74LS466	13	LS17/LS17E
74LS467	13	LS17/LS17E
74LS468	13	LS17/LS17E
74LS490	13	LS17/LS17E
74LS540	13	LS17/LS17E
74LS541	13	LS18/LS18E
74LS590	13	LS18/
74LS590E	13	/LS18E
74LS591	13	LS18/
74LS591E	13	/LS18E
74LS592	13	LS18/LS18E
74LS593	13	LS18/LS18E
74LS594	13	LS18/LS18E
74LS595	13	LS18/LS18E
74LS596	13	LS18/LS18E
74LS597	13	LS18/LS18E
74LS598	13	LS18/LS18E
74LS599	13	LS19/LS19E
74LS600A	13	LS19/LS19E
74LS602A	13	LS19/LS19E
74LS603A	13	LS19/LS19E
74LS604	13	LS19/LS19E
74LS605	13	LS19/LS19E
74LS606	13	LS19/LS19E
74LS607	13	LS19/LS19E
74LS608	13	LS19/LS19E
74LS610	13	LS19/LS19E
74LS611	13	LS19/LS19E
74LS612	13	LS19/LS19E
74LS613	13	LS20/LS20E
74LS621	13	LS20/LS20E
74LS622	13	LS20/LS20E
74LS623	13	LS20/LS20E
74LS624	13	LS20/LS20E
74LS625	14	LS20/LS20E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS626	14	LS20/LS20E
74LS627	14	LS20/LS20E
74LS628	14	LS20/LS20E
74LS629	14	LS20/LS20E
74LS630	14	LS21/LS21E
74LS631	14	LS21/LS21E
74LS636	14	LS21/LS21E
74LS637	14	LS21/LS21E
74LS638	14	LS21/LS21E
74LS639	14	LS21/LS21E
74LS640	14	LS21/LS21E
74LS641	14	LS22/LS22E
74LS642	14	LS22/LS22E
74LS643	14	LS22/LS22E
74LS644	14	LS22/LS22E
74LS645	14	LS23/LS23E
74LS646	14	LS23/LS23E
74LS647	14	LS24/LS24E
74LS648	14	LS24/LS24E
74LS649	14	LS25/LS25E
74LS651	14	LS25/LS25E
74LS652	14	LS26/LS26E
74LS653	14	LS26/LS26E
74LS654	14	LS27/LS27E
74LS668	14	LS27/LS27E
74LS669	14	LS27/LS27E
74LS670	14	LS27/LS27E
74LS671	14	LS27/LS27E
74LS672	14	LS27/LS27E
74LS673	14	LS28/LS28E
74LS674	14	LS28/LS28E
74LS681	14	LS28/ /LS28E
74LS681E	14	/LS28E
74LS682	14	LS28/LS28E
74LS683	14	LS28/LS28E
74LS684	14	LS28/LS28E
74LS685	14	LS28/LS28E
74LS686	14	LS28/LS28E
74LS687	14	LS28/LS28E
74LS688	14	LS28/LS28E
74LS689	14	LS28/LS28E
74LS690	14	LS28/LS28E
74LS691	14	LS29/LS29E
74LS692	14	LS29/LS29E
74LS693	14	LS29/LS29E
74LS696	14	LS29/LS29E
74LS697	14	LS29/LS29E
74LS698	14	LS29/LS29E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS699	14	LS29/LS29E
74S00	15	S1/S1E
74S02	15	S1/S1E
74S03	15	S1/S1E
74S04	15	S1/S1E
74S05	15	S1/S1E
74S08	15	S1/S1E
74S09	15	S1/S1E
74S10	15	S1/S1E
74S11	15	S1/S1E
74S15	15	S1/S1E
74S20	15	S2/S2E
74S22	15	S2/S2E
74S30	15	S2/S2E
74S32	15	S2/S2E
74S37	15	S2/S2E
74S38	15	S2/S2E
74S40	15	S2/S2E
74S51	15	S2/S2E
74S64	15	S2/S2E
74S65	15	S2/S2E
74S74	15	S2/
74S74E	15	/S2E
74S85	15	S2/S2E
74S86	15	S2/S2E
74S112	15	S3/
74S112E	15	/S3E
74S113	15	S3/
74S113E	15	/S3E
74S114	15	S3/
74S114E	15	/S3E
74S124	15	S3/S3E
74S132	15	S3/S3E
74S133	15	S3/S3E
74S134	15	S3/S3E
74S135	15	S3/S3E
74S138	15	S3/S3E
74S139	15	S3/S3E
74S140	15	S3/S3E
74S151	15	S3/S3E
74S153	15	S4/S4E
74S157	15	S4/S4E
74S158	15	S4/S4E
74S162	15	S4/S4E
74S163	15	S4/S4E
74S168	15	S4/S4E
74S169	15	S4/S4E
74S174	15	S4/S4E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74S175	15	S4/S4E
74S181	15	S4/S4E
74S182	15	S4/S4E
74S194	15	S4/S4E
74S195	15	S4/S4E
74S196	15	S4/S4E
74S197	15	S4/S4E
74S226	15	S5/
74S226E	15	/S5E
74S240	15	S5/S5E
74S241	15	S5/S5E
74S244	15	S5/S5E
74S251	15	S5/S5E
74S253	15	S5/S5E
74S257	15	S5/S5E
74S258	15	S5/S5E
74S260	15	S5/S5E
74S268	15	S5/S5E
74S274	15	S5/S5E
74S280	15	S6/S6E
74S281	15	S6/
74S281E	15	/S6E
74S283	15	S6/S6E
74S299	15	S6/S6E
74S350	15	S6/S6E
74S373	15	S6/S6E
74S374	15	S6/S6E
74S381	15	S6/S6E
74S428	15	S7/S7E
74S436	15	S7/S7E
74S437	15	S7/S7E
74S484A	15	S7/S7E
74S485A	15	S7/S7E

DEMORGAN EQUIVALENT SYMBOLS

74LS00D	16	D1/D1E
74LS01D	16	D1/D1E
74LS02D	16	D1/D1E
74LS03D	16	D1/D1E
74LS04D	16	D1/D1E
74LS05D	16	D1/D1E
74LS08D	16	D1/D1E
74LS09D	16	D1/D1E
74LS10D	16	D1/D1E
74LS11D	16	D1/D1E

	DISK NUMBER	PLOT NUMBER (ANSI/IEEE)
74LS12D	16	D1/D1E
74LS13D	16	D1/D1E
74LS14D	16	D1/D1E
74LS15D	16	D1/D1E
74LS20D	16	D2/D2E
74LS21D	16	D2/D2E
74LS22D	16	D2/D2E
74LS26D	16	D2/D2E
74LS27D	16	D2/D2E
74LS28D	16	D2/D2E
74LS30D	16	D2/D2E
74LS32D	16	D2/D2E
74LS33D	16	D2/D2E
74LS37D	16	D2/D2E
74LS38D	16	D2/D2E
74LS40D	16	D2/D2E
74LS132D	16	D2/D2E
74S133D	16	D2/D2E
74S140D	16	D2/D2E
74S260D	16	D2/D2E
7406D	16	D2/D2E
7416D	16	D1/D1E
74128D	16	D1/D1E

COMPONENT LIST BY FUNCTION

The component filename is the component number plus the extension .SYM; for example 74LS490.SYM.

ACCUMULATORS

74LS681	4-bit parallel binary accumulators
74LS681E	4-bit parallel binary accumulators
74S281	4-bit parallel binary accumulators
74S281E	4-bit parallel binary accumulators

A/D CONVERTERS

74F505	8-bit successive approximation analog-to-digital converter
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ADDERS

7480	Gated full adders
7482	2-bit binary full adders
7483A	4-bit binary full adders with fast carry
74182	Look-ahead carry generators
74283	4-bit binary full adders
74AS182	Look-ahead carry generators
74AS264	Look-ahead carry generators
74AS282	Look-ahead carry generator with selectable carry inputs
74AS882	32-bit look-ahead carry generators
74F182	Look-ahead carry generators
74F283	4-bit binary full adder with fast carry
74F385	Quad serial adder/subtractor
74F583	4-bit BCD adder
74LS83A	4-bit binary full adder with fast carry
74LS183	Dual carry-save full adders
74LS283	4-bit binary full adders
74LS385	Quadruple serial adders/subtractors
74S182	Look-ahead carry generators
74S283	4-bit binary full adders

AND/NAND GATES

7400	Quadruple 2-input positive-nand gates
7401	Quadruple 2-input positive-nand gates with open-collector outputs
7403	Quadruple 2-input positive-nand gates with open-collector outputs
7408	Quadruple 2-input positive-and gates
7409	Quadruple 2-input positive-and gates with open-collector outputs
7410	Triple 3-input positive-nand gates
7412	Triple 3-input positive-nand gates with open-collector outputs
7413	Dual 4-input positive-nand Schmitt triggers
7420	Dual 4-input positive-nand gates
7422	Dual 4-input positive-nand gates with open-collector outputs
7426	Quadruple 2-input high-voltage interface positive-nand gates
7430	8-input positive-nand gate
7437	Quadruple 2-input positive-nand buffers
7438	Quadruple 2-input positive-nand buffers with open-collector outputs
7439	Quadruple 2-input positive-nand buffers with open-collector outputs

7440	Dual 4-input positive-nand buffers
74132	Quadruple 2-input positive-nand Schmitt triggers
74265	Quad complementary-output elements
74ALS00A	Quadruple 2-input positive-nand gates
74ALS01	Quadruple 2-input positive-nand gates with open-collector outputs
74ALS03A	Quadruple 2-input positive-nand gates with open-collector outputs
74ALS08	Quadruple 2-input positive-and gates
74ALS09	Quadruple 2-input positive-and gates with open-collector outputs
74ALS10	Triple 3-input positive-nand gates
74ALS11	Triple 3-input positive-and gates
74ALS12	Triple 3-input positive-nand gates with open-collector outputs
74ALS15	Triple 3-input positive-and gates with open-collector outputs
74ALS20A	Dual 4-input positive-nand gates
74ALS21	Dual 4-input positive-and gates
74ALS22A	Dual 4-input positive-nand gates with open-collector outputs
74ALS30	8-input positive-nand gates
74ALS37A	Quadruple 2-input positive-nand buffers
74ALS38A	Quadruple 2-input positive-nand buffers with open-collector outputs
74ALS40A	Dual 4-input positive nand buffers
74ALS133	13-input positive-nand gate
74ALS804	Hex 2-input nand drivers
74ALS808	Hex 2-input and drivers
74AS00	Quadruple 2-input positive-nand gates
74AS08	Quadruple 2-input positive-and gates
74AS10	Triple 3-input positive-nand gates
74AS11	Triple 3-input positive-and gates
74AS20	Dual 4-input positive-nand gates
74AS21	Dual 4-input positive-and gates
74AS30	8-input positive-nand gates
74AS800	Triple 4-input and/nand drivers
74AS802	Triple 4-input or/nor line drivers
74AS804A	Hex 2-input or/nor line drivers
74AS808A	Hex 2-input and drivers
74F00	Quad 2-input positive-nand gates
74F08	Quad 2-input positive-and gates
74F10	Triple 3-input positive-nand gates
74F11	Triple 3-input positive-and gates
74F13	Dual 4-input positive-nand Schmitt triggers
74F20	Dual 4-input positive-nand gates
74F37	Quad 2-input positive-nand buffers
74F38	Quad 2-input positive-nand buffers with open-collector outputs

74F40	Dual 4-input positive-nand buffers
74F132	Quad 2-input positive-nand Schmitt triggers
74LS00	Quadruple 2-input positive-nand gates
74LS01	Quadruple 2-input positive-nand gates with open-collector outputs
74LS03	Quadruple 2-input positive-nand gates with open-collector outputs
74LS08	Quadruple 2-input positive-and gates
74LS09	Quadruple 2-input positive-and gates with open-collector outputs
74LS10	Triple 3-input positive-nand gates
74LS11	Triple 3-input positive-and gates
74LS12	Triple 3-input positive-nand gates with open-collector outputs
74LS13	Dual 4-input positive-nand Schmitt triggers
74LS15	Triple 3-input positive-and gates with open-collector outputs
74LS18	Schmitt-trigger positive-nand gates with totem-pole outputs
74LS20	Dual 4-input positive-nand gates
74LS21	Dual 4-input positive-and gates
74LS22	Dual 4-input positive-nand gates with open-collector outputs
74LS24	Schmitt-trigger positive-nand gates/inverters with totem-pole outputs
74LS26	Quadruple 2-input high-voltage interface positive-nand gates
74LS30	8-input positive-nand gates
74LS37	Quadruple 2-input positive-nand buffers
74LS38	Quadruple 2-input positive-nand buffers with open-collector outputs
74LS40	Dual 4-input positive nand buffers
74LS132	Quadruple 2-input positive-nand Schmitt triggers
74S00	Quadruple 2-input positive-nand gates
74S03	Quadruple 2-input positive-nand gates with open-collector outputs
74S08	Quadruple 2-input positive-and gates
74S09	Quadruple 2-input positive-and gates with open-collector outputs
74S10	Triple 3-input positive-nand gates
74S11	Triple 3-input positive-and gates
74S15	Triple 3-input positive-and gates with open-collector outputs
74S20	Dual 4-input positive-nand gates
74S22	Dual 4-input positive-nand gates with open-collector outputs
74S30	8-input positive-nand gates
74S37	Quadruple 2-input positive-nand buffers

74S38	Quadruple 2-input positive-nand buffers with open-collector outputs
74S40	Dual 4-input positive-nand buffers
74S132	Quadruple 2-input positive-nand Schmitt triggers
74S133	13-input positive-nand gate
74S134	12-input positive-nand gate with 3-state output
74S140	Dual 4-input positive-nand 50-ohm line drivers

AND-OR CIRCUITS

7451	And/or invert gates
7454	4-wide and-or-invert gates
74LS51	And/or invert gates
74LS54	4-wide and-or-invert gates
74LS55	2-wide 4-input and-or-invert gates
74S51	And/or invert gates
74S64	4-2-3-2 input and-or-invert gates
74S65	4-2-3-2 input and-or-invert gates

ARITHMETIC LOGIC UNITS

74181	Arithmetic logic unit/function generator
74AS181A	Arithmetic logic unit/function generator
74AS881A	Arithmetic logic units/function generators
74F181	4-bit arithmetic logic unit
74F381	Arithmetic logic unit/function generator
74F382	4-bit arithmetic logic unit
74F582	4-bit BCD arithmetic logic unit
74LS181	Arithmetic logic unit/function generator
74LS381	Arithmetic logic unit/function generator
74LS382	Arithmetic logic unit/function generator
74S181	Arithmetic logic unit/function generator
74S381	Arithmetic logic unit/function generator

BUFFERS

7407	Hex buffers/drivers with open collector high-voltage outputs
7417	Hex buffers/drivers with open collector high-voltage outputs
7428	Quadruple 2-input positive-nor buffers
7433	Quadruple 2-input positive-nor buffers with open-collector outputs
74125	Quadruple bus buffer gates with 3-state outputs
74126	Quadruple bus buffer gates with 3-state outputs

74425	Quad gates
74426	Quad gates
74ALS28A	Quadruple 2-input positive-nor buffers
74ALS33A	Quadruple 2-input positive-nor buffers with open-collector outputs
74ALS34	Hex noninverters
74ALS35	Hex noninverters with open-collector outputs
74ALS240	Octal buffers/line drivers/line receivers
74ALS241A	Octal buffers/line drivers/line receivers (noninverted tri-state outputs)
74ALS244	Octal buffers/line drivers/line receivers
74ALS465A	Octal buffers with 3-state outputs
74ALS466A	Octal buffers with 3-state outputs
74ALS467A	Octal buffers with 3-state outputs
74ALS468A	Octal buffers with 3-state outputs
74ALS540	Octal buffers and line drivers
74ALS541	Octal buffers and line drivers
74AS34	Hex noninverters
74AS230	Octal buffers and line drivers
74AS231	Octal buffers and line drivers
74AS240	Octal buffers/line drivers/line receivers
74AS241	Octal buffers/line drivers/line receivers (noninverted tri-state outputs)
74AS244	Octal buffers/line drivers/line receivers (noninverted tri-state outputs)
74AS756	Octal buffers/line drivers/line receivers (with open-collector outputs)
74AS757	Octal buffers/line drivers/line receivers (with open-collector outputs)
74AS760	Octal buffers/line drivers/line receivers (with open-collector outputs)
74AS762	Octal buffers and line drivers
74AS763	Octal buffers and line drivers
74F240	Octal buffers/line drivers with 3-state outputs
74F241	Octal buffers/line drivers with 3-state outputs
74F244	Octal buffers/line drivers with 3-state outputs
74F365	Hex buffer/driver with 3-state outputs
74F366	Hex inverter buffer with 3-state outputs
74F367	Hex buffer/driver with 3-state outputs
74F368	Hex inverter buffer with 3-state outputs
74F540	Octal buffer/line driver with 3-state outputs
74F541	Octal buffer/line driver with 3-state outputs
74F655	Octal buffer/line driver with parity with 3-state outputs
74F656	Octal buffer/line driver with parity with 3-state outputs
74F827	10-bit buffers/line drivers
74F828	10-bit buffers/line drivers
74LS28	Quadruple 2-input positive-nor buffers

74LS33	Quadruple 2-input positive-nor buffers with open-collector outputs
74LS125A	Quadruple bus buffer gates with 3-state outputs
74LS126A	Quadruple bus buffer gates with 3-state outputs
74LS240	Octal buffers/line drivers/line receivers
74LS241A	Octal buffers/line drivers/line receiver (noninverted tri-state outputs)
74LS244	Octal buffers/line drivers/line receivers (noninverted tri-state outputs)
74LS465	Octal buffers with 3-state outputs
74LS466	Octal buffers with 3-state outputs
74LS467	Octal buffers with 3-state outputs
74LS468	Octal buffers with 3-state outputs
74LS540	Octal buffers and line drivers
74LS541	Octal buffers and line drivers
74S240	Octal buffers/line drivers/line receivers
74S241	Octal buffers/line drivers/line receivers (noninverted tri-state outputs)
74S244	Octal buffers/line drivers/line receivers (noninverted tri-state outputs)

CODE CONVERTERS

74184	Code converter (BCD to binary)
74185A	Code converter (binary to BCD)
74S484A	BCD-to-binary code converter
74S485A	Binary-to-BCD code converter

COMPARATORS

7485	4-bit magnitude comparator
74ALS518	8-bit identity comparator
74ALS519	8-bit identity comparator
74ALS520	8-bit identity comparator
74ALS521	8-bit identity comparator
74ALS522	8-bit identity comparator
74ALS526	Fuse programmable 16-bit identity comparator
74ALS527	Fuse programmable 8-bit identity comparator and 4-bit comparator
74ALS528	Fuse programmable 12-bit identity comparator
74ALS688	8-bit identity comparator
74ALS689	8-bit identity comparator
74AS866	8-bit magnitude comparator
74AS885	8-bit magnitude comparator
74F85	4-bit magnitude comparator
74F521	8-bit identity comparator
74F524	8-bit registered comparator

74LS85	4-bit magnitude comparator
74LS682	8-bit identity comparator (includes 20-kilohm pull-up resistor on Q inputs)
74LS683	8-bit identity comparator (includes 20-kilohm pull-up resistor on Q inputs)
74LS684	8-bit identity comparator
74LS685	8-bit identity comparator
74LS686	8-bit identity comparator
74LS687	8-bit identity comparator
74LS688	8-bit identity comparator
74LS689	8-bit identity comparator
74S85	4-bit magnitude comparator

CONTROLLERS

74F411	FIFO RAM controller
74S428	System controller for 8080A

COUNTERS

7490A	Decade counter
7492A	Divide-by-12 counter
7493A	4-bit binary counter
74142	Counter/latch/decoder/driver
74142E	Counter/latch/decoder/driver
74143	Counters/latches/decoders/drivers
74143E	Counters/latches/decoders/drivers
74144	Counters/latches/decoders/drivers
74144E	Counters/latches/decoders/drivers
74160	Synchronous 4-bit counter (decade, direct clear)
74161	Synchronous 4-bit counter (binary, direct clear)
74162	Synchronous 4-bit counter (decade, synchronous clear)
74163	Synchronous 4-bit counter (binary, synchronous clear)
74176	Presettable decade/biquinary counter
74177	Presettable binary counter
74190	Synchronous up/down counter (BCD)
74191	Synchronous up/down counter (binary)
74192	Synchronous up/down dual clock counter (BCD with clear)
74193	Synchronous up/down dual clock counter (binary with clear)
74196	Presettable decade/biquinary counter/latches
74197	Presettable binary counter/latches

74290	Decade counter (divide-by-two and divide-by-five)
74293	4-bit binary counter (divide-by-two and divide-by-eight)
74390	Dual decade counter (bi-quinary or BCD sequences)
74393	Dual 4-bit binary counter
74490	Dual decade counter
74ALS160A	Synchronous 4-bit counter (decade, direct clear)
74ALS161A	Synchronous 4-bit counter (binary, direct clear)
74ALS162A	Synchronous 4-bit counter (decade, synchronous clear)
74ALS163A	Synchronous 4-bit counter (binary, synchronous clear)
74ALS168A	4-bit up/down synchronous counter (decade)
74ALS169A	4-bit up/down synchronous counter (binary)
74ALS190	Synchronous up/down counter (BCD)
74ALS191	Synchronous up/down counter (binary)
74ALS192	Synchronous up/down dual clock counter (BCD with clear)
74ALS193	Synchronous up/down dual clock counter (binary with clear)
74ALS560	Synchronous 4-bit counter
74ALS561	Synchronous 4-bit counter
74ALS568	Synchronous 4-bit up/down counter
74ALS569	Synchronous 4-bit up/down counter
74AS160	Synchronous 4-bit counter (decade, direct clear)
74AS161	Synchronous 4-bit counter (binary, direct clear)
74AS162	Synchronous 4-bit counter (decade, synchronous clear)
74AS163	Synchronous 4-bit counter (binary, synchronous clear)
74AS168	4-bit up/down synchronous counter (decade)
74AS169	4-bit up/down synchronous counter (binary)
74AS867	8-bit synchronous bidirectional counters
74AS869	8-bit synchronous bidirectional counters
74F160A	Synchronous presettable BCD decade counter
74F161A	Synchronous presettable binary counter
74F162A	Synchronous presettable BCD decade counter
74F163A	Synchronous presettable binary counter
74F168	4-stage synchronous bidirectional counter
74F169	4-stage synchronous bidirectional counter
74F190	Up/down decade counter with preset and ripple clock

74F191	Up/down binary counter with preset and ripple clock
74F192	Up/down decade counter with separate up/down clocks
74F193	Up/down binary counter with separate up/down clocks
74F269	8-bit bidirectional binary counter
74F525	Programmable counter
74F568	4-bit bidirectional BCD decade counter with 3-state outputs
74F569	4-bit bidirectional binary counter with 3-state outputs
74F579	8-bit bidirectional binary counter with 3-state outputs
74F779	8-bit bidirectional binary counter with 3-state outputs
74LS68	Dual 4-bit decade counter
74LS69	Dual 4-bit binary counter
74LS90	Decade counter
74LS92	Divide-by-12 counter
74LS93	4-bit binary counter
74LS160A	Synchronous 4-bit counter (decade, direct clear)
74LS161A	Synchronous 4-bit counter (binary, direct clear)
74LS162A	Synchronous 4-bit counter (decade, synchronous clear)
74LS163A	Synchronous 4-bit counter (binary, synchronous clear)
74LS169B	4-bit up/down synchronous counter (binary)
74LS190	Synchronous up/down counter (BCD)
74LS191	Synchronous up/down counter (binary)
74LS192	Synchronous up/down dual clock counter (BCD with clear)
74LS193	Synchronous up/down dual clock counter (binary with clear)
74LS196	Presetable decade/biquinary counter/latches
74LS197	Presetable binary counter/latches
74LS290	Decade counter (divide-by-two and divide-by-five)
74LS293	4-bit binary counter (divide-by-two and divide-by-eight)
74LS390	Dual decade counter (bi-quinary or BCD sequences)
74LS393	Dual 4-bit binary counter
74LS490	Dual decade counter
74LS590	8-bit binary counter with 3-state register outputs

74LS590E	8-bit binary counter with 3-state register outputs
74LS591	8-bit binary counter with open-collector register outputs
74LS591E	8-bit binary counter with open-collector register outputs
74LS592	8-bit binary counter with input registers
74LS593	8-bit binary counter with input registers
74LS668	Synchronous 4-bit up/down counter
74LS669	Synchronous 4-bit up/down counter
74LS690	Synchronous decade counter with output registers
74LS691	Synchronous binary counter with output registers
74LS692	Synchronous decade counter with output registers
74LS693	Synchronous binary counter with output registers
74LS696	Synchronous up/down decade counter with output registers, multiplexed 3-state outputs
74LS697	Synchronous up/down binary counter with output registers, multiplexed 3-state outputs
74LS698	Synchronous up/down decade counter with output registers, multiplexed 3-state outputs
74LS699	Synchronous up/down binary counter with output registers, multiplexed 3-state outputs
74S162	Synchronous 4-bit counter (decade, synchronous clear)
74S163	Synchronous 4-bit counter (binary, synchronous clear)
74S168	4-bit up/down synchronous counter (decade)
74S169	4-bit up/down synchronous counter (binary)
74S196	Presettable decade/biquinary counter/latches
74S197	Presettable binary counter/latches

DECODERS/DRIVERS

7442A	4-line to 10-line decoders (BCD to decimal)
7443A	4-line to 10-line decoders (excess-3 to decimal)
7444A	4-line to 10-line decoders (excess 3-gray to decimal)
7445	BCD-to-decimal decoder/driver
7446A	BCD-to-seven-segment decoders/drivers (30 volt outputs)
7447A	BCD-to-seven-segment decoders/drivers (15 volt outputs)
7448	BCD-to-seven-segment decoders/drivers

7449	BCD to seven segment decoders/drivers (open-collector outputs)
74120	Dual pulse synchronizers/drivers
74128	Line drivers (50 Ohm)
74141	BCD-to-decimal decoder/driver
74145	BCD-to-decimal decoders/drivers for lamps, relays, mos
74154	4-line to 16-line decoders/demultiplexers
74155	Decoders/demultiplexers (totem-pole outputs)
74156	Decoders/demultiplexers (open-collector outputs)
74159	4-line to 16-line decoders/demultiplexers (open-collector outputs)
74246	BCD-to-seven-segment decoders/drivers with ripple blanking (active low, open-collector, 30-volt outputs)
74247	BCD-to-seven-segment decoders/drivers with ripple blanking (active low, open-collector, 15-volt outputs)
74248	BCD-to-seven-segment decoders/drivers (internal pull-up outputs)
74249	BCD-to-seven-segment decoders/drivers (open-collector outputs)
74365A	Hex bus drivers (non-inverted 3-state outputs, gated enable inputs)
74366A	Hex bus drivers (inverted 3-state outputs, gated enable inputs)
74367A	Hex bus drivers (noninverted 3-state outputs organized to facilitate handling of 4-bit data)
74368A	Hex bus drivers (inverted 3-state outputs organized to facilitate handling 4-bit data)
74ALS131	3-to-8-line decoders/demultiplexers with address registers
74ALS137	3-to-8-line decoders/demultiplexers with address latches
74ALS138	3-to-8-line decoders/demultiplexers
74ALS139	Dual 2-to-4-line decoders/demultiplexers
74ALS365	Hex bus drivers (non-inverted 3-state outputs, gated enable inputs)
74ALS366	Hex bus drivers (inverted 3-state outputs, gated enable inputs)
74ALS367	Hex bus drivers (noninverted 3-state outputs organized to facilitate handling 4-bit data)
74ALS368	Hex bus drivers (inverted 3-state outputs organized to facilitate handling 4-bit data)
74ALS538	3-to-8-line decoders/demultiplexers
74ALS539	2-to-4-line decoders/demultiplexers

74AS131	3-to-8-line decoders/demultiplexers with address registers
74AS137	3-to-8-line decoders/demultiplexers with address latches
74AS138	3-to-8-line decoders/demultiplexers
74AS139	Dual 2-to-4-line decoders/demultiplexers
74F138	1-of-8 decoder/demultiplexer
74F139	Dual 1-of-4 decoder
74F537	1-of-10 decoder with 3-state outputs
74F538	1-of-8 decoder with 3-state outputs
74F539	Dual 1-of-4 decoder with 3-state outputs
74F547	Octal decoder/demultiplexer with address latches and acknowledge
74F548	Octal decoder/demultiplexer with acknowledge
74LS42	4-line to 10-line decoders (BCD to decimal)
74LS47	BCD-to-seven-segment decoders/drivers (15 volt outputs)
74LS47E	BCD-to-seven-segment decoders/drivers (15 volt outputs)
74LS48	BCD-to-seven-segment decoders/drivers
74LS48E	BCD-to-seven-segment decoders/drivers
74LS49	BCD-to-seven-segment decoders/drivers (open-collector outputs)
74LS137	3-to-8-line decoders/demultiplexers with address latches
74LS138	3-to-8-line decoders/demultiplexers
74LS139	Dual 2-to-4-line decoders/demultiplexers
74LS145	BCD-to-decimal decoders/drivers for lamps, relays, mos
74LS155A	Decoders/demultiplexers (totem-pole outputs)
74LS156	Decoders/demultiplexers (open-collector outputs)
74LS247	BCD-to-seven-segment decoders/drivers with ripple blanking (active low, open-collector, 15-volt outputs)
74LS248	BCD-to-seven-segment decoders/drivers (internal pull-up outputs)
74LS249	BCD-to-seven-segment decoders/drivers (open-collector outputs)
74LS347	BCD-to-seven-segment decoders/drivers
74LS365A	Hex bus drivers (non-inverted 3-state outputs, gated enable inputs)
74LS366A	Hex bus drivers (inverted 3-state outputs, gated enable inputs)
74LS367A	Hex bus drivers (noninverted 3-state outputs organized to facilitate handling 4-bit data)
74LS368A	Hex bus drivers (inverted 3-state outputs organized to facilitate handling 4-bit data)
74LS445	BCD-to-decimal decoders/drivers

74LS447	BCD-to-7-segment decoders/drivers
74S138	3-to-8-line decoders/demultiplexers
74S139	Dual 2-to-4-line decoders/demultiplexers
74S436	Line driver/memory driver circuits-mos memory interface
74S437	Line driver/memory driver circuits-mos memory interface

ENCODERS

74147	10-line decimal to 4-line BCD priority encoder
74148	8-to-3-line octal priority encoder
74F148	8-line to 3-line priority encoder
74LS147	10-line decimal to 4-line BCD priority encoder
74LS148	8-to-3-line octal priority encoder
74LS348	8-line to 3-line priority encoder (with 3-state outputs)

ERROR DETECTION/CORRECTION CIRCUITS

74F401	CRC generator/checker
74F402	Serial data polynomial generator/checker
74F418	32-bit memory error detection and correction circuit
74F420	Parallel check bit/syndrome bit generator
74F630	16-bit error detection and correction circuit with 3-state outputs
74F632	32-bit parallel error detection and correction circuit
74LS630	16-bit parallel error detection and correction circuits
74LS631	16-bit parallel error detection and correction circuits
74LS636	8-bit parallel error detection and correction circuits
74LS637	8-bit parallel error detection and correction circuits

EXCLUSIVE OR/NOR GATES

7486	Quadruple 2-input exclusive-or gates
74136	Quad exclusive-or gates with open-collector outputs
74ALS86	Quadruple 2-input exclusive-or gates
74F86	Quad 2-input exclusive-or gates
74LS86	Quadruple 2-input exclusive-or gates

74LS136 Quad exclusive-or gates with open-collector outputs
 74LS266 Quad 2-input exclusive-nor gates with open-collector outputs
 74LS386 Quad 2-input exclusive-or gates
 74S86 Quadruple 2-input exclusive-or gates
 74S135 Quad exclusive-or/nor gates

FIFO MEMORY

74F403 First-in first-out (FIFO) buffer memory
 74F413 64x4 first-in first-out buffer memory with serial and parallel I/O
 74F433 First-in first-out (FIFO) buffer memory

FLIP FLOPS

7470 And-gated J-K positive-edge-triggered flip-flops with preset and clear
 7472 And-gated J-K master-slave flip-flops with preset and clear
 7473 Dual J-K flip-flops with clear
 7473E Dual J-K flip-flops with clear
 7474 Dual D-type positive-edge-triggered flip-flops with preset and clear
 7474E Dual D-type positive-edge-triggered flip-flops with preset and clear
 7476 Dual J-K flip-flops with preset and clear
 7476E Dual J-K flip-flops with preset and clear
 74104 And-gated J-K master-slave flip-flops
 74105 And-gated J-K master-slave flip-flops
 74107 Dual J-K flip-flops with clear
 74107E Dual J-K flip-flops with clear
 74109 Dual J-K' positive-edge-triggered flip-flops with preset and clear
 74109E Dual J-K' positive-edge-triggered flip-flops with preset and clear
 74110 And-gated J-K master-slave flip-flops with data lockout
 74111 Dual J-K master-slave flip-flops with data lockout
 74174 Hex D-type flip-flops with single rail outputs and common direct clear
 74175 Quad D-type flip-flops with complimentary outputs and common direct clear
 74273 Octal D-type flip-flops with common clock single rail outputs

74276	Quad J-K' flip-flops with common direct preset and clear
74376	Quad J-K' flip-flops with common clock and common clear
74ALS74	Dual D-type positive-edge-triggered flip-flops with preset and clear
74ALS74E	Dual D-type positive-edge-triggered flip-flops with preset and clear
74ALS109	Dual J-K' positive-edge-triggered flip-flops with preset and clear
74ALS112A	Dual J-K negative-edge-triggered flip-flops with preset and clear
74ALS113A	Dual J-K negative-edge-triggered flip-flops with preset
74ALS114A	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74ALS174	Hex D-type flip-flops
74ALS175	Quad D-type flip-flops
74ALS273	Octal D-type flip-flops
74ALS374	Octal D-type flip-flops
74ALS534	Octal D-type edge-triggered flip-flops
74ALS564	Octal D-type edge-triggered flip-flops
74ALS574	Octal D-type edge-triggered flip-flops
74ALS575	Octal D-type edge-triggered flip-flops
74ALS576	Octal D-type edge-triggered flip-flops
74ALS577	Octal D-type edge-triggered flip-flops
74ALS874	Dual 4-bit D-type edge-triggered flip-flops
74ALS876	Dual 4-bit D-type edge-triggered flip-flops with inverted outputs
74ALS878	Dual 4-bit D-type edge-triggered flip-flops
74ALS879	Dual 4-bit D-type edge-triggered flip-flops with inverted outputs
74AS74	Dual D-type positive-edge-triggered flip-flops with preset and clear
74AS74E	Dual D-type positive-edge-triggered flip-flops with preset and clear
74AS109	Dual J-K' positive-edge-triggered flip-flops with preset and clear
74AS109E	Dual J-K' positive-edge-triggered flip-flops with preset and clear
74AS112	Dual J-K negative-edge-triggered flip-flops with preset and clear
74AS112E	Dual J-K negative-edge-triggered flip-flops with preset and clear
74AS113	Dual J-K negative-edge-triggered flip-flops with preset
74AS113E	Dual J-K negative-edge-triggered flip-flops with preset

74AS114	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74AS114E	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74AS174	Hex D-type flip-flops
74AS175	Quad D-type flip-flops
74AS374	Octal D-type flip-flops
74AS534	Octal D-type edge-triggered flip-flops
74AS574	Octal D-type edge-triggered flip-flops
74AS575	Octal D-type edge-triggered flip-flops
74AS576	Octal D-type edge-triggered flip-flops
74AS577	Octal D-type edge-triggered flip-flops
74AS821	10-bit bus interface flip-flops with 3-state outputs
74AS822	10-bit bus interface flip-flops with 3-state outputs
74AS823	9-bit bus interface flip-flops with 3-state outputs
74AS824	9-bit bus interface flip-flops with 3-state outputs
74AS825	8-bit bus interface flip-flops with 3-state outputs
74AS826	8-bit bus interface flip-flops with 3-state outputs
74AS874	Dual 4-bit D-type edge-triggered flip-flops
74AS876	Dual 4-bit D-type edge-triggered flip-flops with inverted outputs
74AS878	Dual 4-bit D-type edge-triggered flip-flops
74AS879	Dual 4-bit D-type edge-triggered flip-flops with inverted outputs
74F74	Dual D-type positive edge-triggered flip-flops
74F74E	Dual D-type positive edge-triggered flip-flops
74F174	Hex D flip-flops with master reset
74F175	Quad D flip-flops
74F273	Octal D flip-flops
74F374	Octal D-type flip-flops with 3-state outputs
74F377	Octal D flip-flops with clock enable
74F534	Octal D-type flip-flops with 3-state outputs
74F564	Octal D-type flip-flops with 3-state outputs
74F574	Octal D-type flip-flops with 3-state outputs
74F821	10-bit D-type flip-flop
74F823	9-bit D-type flip-flop
74F825	8-bit D-type flip-flop
74LS73A	Dual J-K flip-flops with clear
74LS73AE	Dual J-K flip-flops with clear
74LS74A	Dual D-type positive-edge-triggered flip-flops with preset and clear
74LS74AE	Dual D-type positive-edge-triggered flip-flops with preset and clear

74LS76A	Dual J-K flip-flops with preset and clear
74LS76AE	Dual J-K flip-flops with preset and clear
74LS78A	Dual J-K flip-flops with preset, common clear, and common clock
74LS107A	Dual J-K flip-flops with clear
74LS107E	Dual J-K flip-flops with clear
74LS109A	Dual J-K' positive-edge-triggered flip-flops with preset and clear
74LS109E	Dual J-K' positive-edge-triggered flip-flops with preset and clear
74LS112A	Dual J-K negative-edge-triggered flip-flops with preset and clear
74LS112E	Dual J-K negative-edge-triggered flip-flops with preset and clear
74LS113A	Dual J-K negative-edge-triggered flip-flops with preset
74LS113E	Dual J-K negative-edge-triggered flip-flops with preset
74LS114A	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74LS114E	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74LS171	Quad D-type flip-flops with clear
74LS174	Hex D-type flip-flops
74LS175	Quad D-type flip-flops
74LS273	Octal D-type flip-flops
74LS374	Octal D-type flip-flops
74LS377	Octal D-type flip-flops
74LS378	Hex D-type flip-flops
74LS379	Quad D-type flip-flops
74S74	Dual D-type positive-edge-triggered flip-flops with preset and clear
74S74E	Dual D-type positive-edge-triggered flip-flops with preset and clear
74S112	Dual J-K negative-edge-triggered flip-flops with preset and clear
74S112E	Dual J-K negative-edge-triggered flip-flops with preset and clear
74S113	Dual J-K negative-edge-triggered flip-flops with preset
74S113E	Dual J-K negative-edge-triggered flip-flops with preset
74S114	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74S114E	Dual J-K negative-edge-triggered flip-flops with preset, common clear, and common clock
74S174	Hex D-type flip-flops
74S175	Quad D-type flip-flops
74S374	Octal D-type flip-flops

FREQUENCY DIVIDERS

74LS56	50-to-1 frequency divider
74LS57	60-to-1 frequency divider
74LS292	Programmable frequency dividers/digital timers
74LS294	Programmable frequency dividers/digital timers

INVERTERS

7404	Hex inverters
7405	Hex inverters with open-collector outputs
7406	Hex inverter buffers/drivers with open-collector high-voltage outputs
7414	Hex schmitt-trigger inverters
7416	Hex inverter buffers/drivers with open-collector high-voltage outputs
74ALS04A	Hex inverters
74ALS05A	Hex inverters with open-collector outputs
74AS04	Hex inverters
74F04	Hex inverter
74F14	Hex inverter Schmitt trigger
74F64	4-2-3-2-input and/or invert gate
74LS04	Hex inverters
74LS05	Hex inverters with open-collector outputs
74LS14	Hex schmitt-trigger inverters
74LS19	Schmitt-trigger inverters with totem-pole outputs
74S04	Hex inverters
74S05	Hex inverters with open-collector outputs

LATCHES

7475	4-bit bistable latches
74100	8-bit bistable latches
74116	Dual 4-bit latches
74259	8-bit addressable latches
74279	quad S'-R' latches
74ALS373	Octal D-type latches
74ALS533	Octal D-type transparent latches
74ALS563	Octal D-type transparent latches with inverted outputs
74ALS573	Octal D-type transparent latches
74ALS580	Octal D-type transparent latches with inverted outputs
74ALS841	10-bit bus interface D-type latches with 3-state outputs
74ALS842	10-bit bus interface D-type latches with 3-state outputs

74ALS843	9-bit bus interface D-type latches with 3-state outputs
74ALS844	9-bit bus interface D-type latches with 3-state outputs
74ALS845	8-bit bus interface D-type latches with 3-state outputs
74ALS846	8-bit bus interface D-type latches with 3-state outputs
74ALS873	Dual 4-bit D-type latches
74ALS880	Dual 4-bit D-type latches with inverted outputs
74AS373	Octal D-type latches
74AS533	Octal D-type transparent latches
74AS573	Octal D-type transparent latches
74AS580	Octal D-type transparent latches with inverted outputs
74AS841	10-bit bus interface D-type latches with 3-state outputs
74AS842	10-bit bus interface D-type latches with 3-state outputs
74AS843	9-bit bus interface D-type latches with 3-state outputs
74AS844	9-bit bus interface D-type latches with 3-state outputs
74AS845	8-bit bus interface D-type latches with 3-state outputs
74AS846	8-bit bus interface D-type latches with 3-state outputs
74AS873	Dual 4-bit D-type latches
74AS880	Dual 4-bit D-type latches with inverted outputs
74F256	Dual 4-bit addressable latches
74F259	8-Bit addressable latch
74F373	Octal transparent latch with 3-state outputs
74F432	Multi-mode buffered latch with 3-state outputs
74F533	Octal transparent latch with 3-state outputs
74F563	Octal D-type latch with 3-state outputs
74F573	Octal D-type latch with 3-state outputs
74F841	10-bit transparent latch
74F843	9-bit transparent latch
74F845	8-bit transparent latch
74LS75	4-bit bistable latches
74LS259	8-bit addressable latches
74LS279A	Quad S ¹ -R ¹ latches
74LS363	Octal D-type latches
74LS364	Octal D-type flip-flops
74LS373	Octal D-type latches
74LS375	4-bit bistable latches
74S268	Hex D-type latches
74S373	Octal D-type latches

MEMORY MAPPERS

74F610	Memory mappers with 3-state outputs and output latches
74F612	Memory mappers with 3-state outputs and output latches
74LS610	Memory mappers
74LS611	Memory mappers
74LS612	Memory mappers
74LS613	Memory mappers

MULTIPLEXERS

74150	1-of-16 data selectors/multiplexers
74151A	1-of-8 data selectors/multiplexers
74153	Dual 4-line to 1-line data selectors/multiplexers
74157	Quad 2-line to 1-line data selectors/multiplexers
74251	Data selectors/multiplexers with true and inverted tri-state outputs
74298	Quad 2-input multiplexers with storage
74351	Dual 8-line to 1-line data selectors/multiplexers
74ALS151	1-of-8 data selectors/multiplexers
74ALS153	Dual 4-line to 1-line data selectors/multiplexers
74ALS157	Quad 2-line to 1-line data selectors/multiplexers
74ALS158	Quad 2-to 1-line data selectors/multiplexers
74ALS251	Data selectors/multiplexers
74ALS253	Dual data selectors/multiplexers
74ALS257	Quad data selectors/multiplexers
74ALS258	Quad data selectors/multiplexers
74ALS352	Dual 4-line to 1-line data selectors/multiplexers
74ALS353	Dual 4-line to 1-line data selectors/multiplexers
74ALS857	Hex 2-to-1 universal multiplexer
74AS151	1-of-8 data selectors/multiplexers
74AS153	Dual 4-line to 1-line data selectors/multiplexers
74AS157	Quad 2-line to 1-line data selectors/multiplexers
74AS158	Quad 2-to 1-line data selectors/multiplexers
74AS250	1-of-16 data selectors/multiplexers
74AS251	Data selectors/multiplexers

74AS253	Dual data selectors/multiplexers
74AS257	Quad data selectors/multiplexers
74AS258	Quad data selectors/multiplexers
74AS298	Quad 2-input multiplexers with storage
74AS352	Dual 4-line to 1-line data selectors/ multiplexers
74AS353	Dual 4-line to 1-line data selectors/ multiplexers
74AS850	1 of 16 data selectors/multiplexers
74AS851	1 of 16 data selectors/multiplexers
74AS857	Hex 2-to-1 universal multiplexer
74F151A	8-input multiplexer
74F153	Dual 4-input multiplexer
74F157A	Quad 2-input multiplexer
74F158A	Quad 2-input multiplexer
74F251A	8-input multiplexer with 3-state outputs
74F253	Dual 4-input multiplexer with 3-state outputs
74F257	Quad 2-input multiplexer with 3-state outputs
74F258	Quad 2-input multiplexer with 3-state outputs
74F298	Quad 2-input multiplexer with storage
74F352	Dual 4-input multiplexer
74F353	Dual 4-input multiplexer with 3-state outputs
74LS151	1-of-8 data selectors/multiplexers
74LS153	Dual 4-line to 1-line data selectors/ multiplexers
74LS157	Quad 2-line to 1-line data selectors/ multiplexers
74LS158	Quad 2-to 1-line data selectors/multiplexers
74LS251	Data selectors/multiplexers
74LS253	Dual data selectors/multiplexers
74LS257B	Quad data selectors/multiplexers
74LS258B	Quad data selectors/multiplexers
74LS298	Quad 2-input multiplexers with storage
74LS352	Dual 4-line to 1-line data selectors/ multiplexers
74LS353	Dual 4-line to 1-line data selectors/ multiplexers
74LS354	8-line to 1-line data selectors/multiplexers/ transparent registers
74LS355	8-line to 1-line data selectors/multiplexers/ transparent registers
74LS356	8-line to 1-line data selectors/multiplexers/ edge-triggered registers
74LS357	8-line to 1-line data selectors/multiplexers/ edge-triggered registers
74LS398	Quad 2-input multiplexers with storage
74LS399	Quad 2-input multiplexers with storage
74S151	1-of-8 data selectors/multiplexers

74S153	Dual 4-line to 1-line data selectors/ multiplexers
74S157	Quad 2-line to 1-line data selectors/ multiplexers
74S158	Quad 2-to 1-line data selectors/ multiplexers
74S251	Data selectors/multiplexers
74S253	Dual data selectors/multiplexers
74S257	Quad data selectors/multiplexers
74S258	Quad data selectors/multiplexers

MULTIPLIERS

7497	Synchronous 6-bit binary rate multipliers
74167	Synchronous decade rate multipliers
74285	4-bit by 4-bit parallel binary multipliers used with 74284
74F384	8-bit serial/parallel twos complement multiplier
74F784	8-bit serial/parallel multiplier with adder/subtractor
74LS261	2-bit by 4-bit parallel binary multipliers
74LS384	8-bit by 1-bit two's complement multipliers
74S274	4-bit by 4-bit binary multipliers

MULTIVIBRATORS

74121	Monostable multivibrators
74122	Retriggerable monostable multivibrators with clear
74123	Dual retriggerable monostable multivibrators with positive and negative inputs and direct clear
74221	Dual monostable multivibrators
74LS122	Retriggerable monostable multivibrators with clear
74LS123	Dual retriggerable monostable multivibrators with positive and negative inputs and direct clear
74LS221	Dual monostable multivibrators
74LS422	Re-triggerable monostable multivibrators
74LS422E	Re-triggerable monostable multivibrators
74LS423	Re-triggerable monostable multivibrators

OR/NOR GATES

7402	Quadruple 2-input positive-nor gates
7425	Dual 4-input positive-nor gates with strobe
7427	Triple 3-input positive nor gates
7432	Quadruple 2-input positive-or gates
74ALS02	Quadruple 2-input positive-nor gates
74ALS27	Triple 3-input positive-nor gates
74ALS32	Quadruple 2-input positive-or gates
74ALS805	Hex 2-input nor drivers
74ALS832	Hex 2-input or drivers
74AS02	Quadruple 2-input positive-nor gates
74AS27	Triple 3-input positive-nor gates
74AS32	Quadruple 2-input positive-or gates
74AS805A	Hex 2-input nor drivers
74AS832A	Hex 2-input or drivers
74F02	Quad 2-input nor gate
74F32	Quad 2-input or gate
74LS02	Quadruple 2-input positive-nor gates
74LS27	Triple 3-input positive-nor gates
74LS32	Quadruple 2-input positive-or gates
74S02	Quadruple 2-input positive-nor gates
74S32	Quadruple 2-input positive-or gates
74S260	Dual 5-input positive-nor gates

PARITY GENERATORS

74180	9-bit odd/even parity generators/checkers
74AS280	9-bit odd/even parity generators/checkers
74AS286	9-bit odd/even parity generators checkers with bus driver parity I/O port
74F280	9-bit odd/even parity generators/checkers
74LS280	9-bit odd/even parity generators/checkers
74S280	9-bit odd/even parity generators/checkers

REGISTER FILES

74170	4-by-4 register files
74172	16-bit register files
74AS870	Dual 16-by-4 register files
74AS870E	Dual 16-by-4 register files
74AS871	Dual 16-by-4 register files
74AS871E	Dual 16-by-4 register files
74LS170	4-by-4 register files
74LS670	4-by-4 register files

REGISTERS

74173	4-bit D-type registers with tri-state outputs
74278	4-bit cascadable priority registers
74F322	8-bit serial/parallel register with sign extend
74F378	Parallel D register with enable
74F379	Quad parallel register with enable
74F398	Quad 2-port register
74F399	Quad 2-port register
74F407	Data access register
74F410	Register stack--16x4 RAM 3-state output register
74F604	Dual octal registers with multiplexed 3-state outputs
74LS173A	4-bit D-type registers
74LS396	Octal storage registers
74LS604	Octal 2-input multiplexed registers
74LS605	Octal 2-input multiplexed registers
74LS606	Octal 2-input multiplexed registers
74LS607	Octal 2-input multiplexed registers

SHIFT REGISTERS

7491A	8-bit shift registers
7494	4-bit shift registers (dual asynchronous presets)
7495A	4-bit shift registers (p/inputs p/outputs, s/l;s/r; ser inputs)
7496	5-bit shift registers
74164	8-bit parallel-out serial shift registers
74165	Parallel-load 8-bit shift registers with complementary outputs
74166	8-bit shift registers (parallel/serial input;serial output)
74178	4-bit universal shift register
74179	4-bit universal shift registers (direct clear; complimentary outputs)
74194	4-bit bidirectional universal shift registers
74195	4-bit parallel-access shift registers
74198	8-bit bidirectional universal shift register
74199	8-bit bidirectional universal shift register (J-K' serial inputs)
74ALS164	8-bit parallel-out serial shift registers (asynchronous clear)
74ALS165	8-bit shift registers (parallel-load with complementary outputs)
74ALS166	8-bit shift registers (parallel/serial input; serial output)

74ALS299	8-bit bidirectional universal shift/storage registers (3-state outputs)
74ALS323	8-bit bidirectional shift/storage registers
74AS95	4-bit shift registers (parallel-in/parallel-out, shift right, shift left, serial input)
74AS194	4-bit bidirectional universal shift registers
74AS195	4-bit parallel-access shift registers
74AS299	8-bit bidirectional universal shift/storage registers (3-state outputs)
74AS323	8-bit bidirectional shift/storage registers
74AS395	4-bit universal shift registers
74F164	Serial-in, parallel-out shift register
74F194	4-bit bidirectional universal shift register
74F195	4-bit parallel access shift register
74F299	8-input universal shift/storage register with common parallel I/O pins
74F323	8-bit universal shift/storage register with synchronous reset and common I/O pins
74F395	4-bit cascadable shift register with 3-state outputs
74F673A	16-bit serial-in, serial/parallel-out shift register
74F674	16-bit serial/parallel-in, serial-out shift register
74F675	16-bit serial-in, serial/parallel-out shift register
74F676	16-bit serial/parallel-in, serial-out shift register
74LS91	8-bit shift registers
74LS95B	4-bit shift registers
74LS96	5-bit shift registers
74LS164	8-bit parallel-out serial shift registers
74LS165	Parallel-load 8-bit shift registers with complementary outputs
74LS166A	8-bit shift registers
74LS194A	4-bit bidirectional universal shift registers
74LS195A	4-bit parallel-access shift registers
74LS295B	4-bit bidirectional universal shift registers
74LS299	8-bit bidirectional universal shift/storage registers
74LS322A	8-bit shift registers with sign extend
74LS323	8-bit bidirectional universal shift/storage registers
74LS395A	4-bit universal shift registers
74LS594	8-bit shift registers with output latches
74LS595	8-bit shift registers with output latches
74LS596	8-bit shift registers with output latches
74LS597	8-bit shift registers with input latches
74LS598	8-bit shift registers with input latches

74LS599	8-bit shift registers with output latches
74LS671	4-bit universal shift registers/latches with 3-state outputs
74LS672	4-bit universal shift registers/latches with 3-state outputs
74LS673	16-bit shift registers
74LS674	16-bit shift registers
74S194	4-bit bidirectional universal shift registers
74S195	4-bit parallel-access shift registers
74S299	8-bit bidirectional universal shift/storage registers

SHIFTERS

74F350	4-bit shifter (3-state outputs)
74S350	4-bit shifter (3-state outputs)

TRANSCEIVERS

74ALS242A	Quadruple bus transceivers (inverted 3-state outputs)
74ALS243A	Quadruple bus transceivers (non-inverted 3-state outputs)
74ALS245A	Octal bus transceivers (non-inverted 3-state outputs)
74ALS620A	Octal bus transceivers
74ALS621A	Octal bus transceivers
74ALS622A	Octal bus transceivers
74ALS623A	Octal bus transceivers
74ALS638A	Octal bus transceivers
74ALS639A	Octal bus transceivers
74ALS640A	Octal bus transceivers
74ALS641A	Octal bus transceivers
74ALS642A	Octal bus transceivers
74ALS643A	Octal bus transceivers
74ALS644A	Octal bus transceivers
74ALS645A	Octal bus transceivers
74ALS646	Octal bus transceivers and registers
74ALS647	Octal bus transceivers and registers
74ALS648	Octal bus transceivers and registers
74ALS649	Octal bus transceivers and registers
74ALS651	Octal bus transceivers and registers
74ALS652	Octal bus transceivers and registers
74ALS653	Octal bus transceivers and registers
74ALS654	Octal bus transceivers and registers

74AS242	Quadruple bus transceivers (inverted 3-state outputs)
74AS243	Quadruple bus transceivers (non-inverted 3-state outputs)
74AS245	Octal bus transceivers (non-inverted 3-state outputs)
74AS620	Octal bus transceivers
74AS621	Octal bus transceivers
74AS622	Octal bus transceivers
74AS623	Octal bus transceivers
74AS638	Octal bus transceivers
74AS639	Octal bus transceivers
74AS640	Octal bus transceivers
74AS641	Octal bus transceivers
74AS642	Octal bus transceivers
74AS643	Octal bus transceivers
74AS644	Octal bus transceivers
74AS645	Octal bus transceivers
74AS646	Octal bus transceivers and registers
74AS648	Octal bus transceivers and registers
74AS651	Octal bus transceivers and registers
74AS652	Octal bus transceivers and registers
74AS758	Quadruple bus transceivers (with open-collector outputs)
74AS759	Quadruple bus transceivers (with open-collector outputs)
74F242	Quad bus transceiver with 3-state outputs
74F243	Quad bus transceiver with 3-state outputs
74F245	Octal bidirectional transceiver with 3-state inputs/outputs
74F543	Octal registered transceiver
74F544	Octal registered transceiver
74F545	Octal bidirectional transceiver with 3-state inputs/outputs
74F550	Octal registered transceiver with status flags
74F551	Octal registered transceiver with status flags
74F588	Octal bidirectional transceiver with 3-state inputs/outputs and IEEE-488 termination resistors
74F620	Inverting octal bus transceiver with 3-state outputs
74F623	Inverting octal bus transceiver with 3-state outputs
74F646	Octal transceiver/register with 3-state outputs
74F648	Octal transceiver/register with 3-state outputs
74F657	Octal bidirectional transceiver with 8-bit parity generator/checker and 3-state outputs
74LS242	Quadruple bus transceivers (inverted 3-state outputs)

74LS243	Quadruple bus transceivers (noninverted 3-state outputs)
74LS245	Octal bus transceivers (noninverted 3-state outputs)
74LS440	Quad tridirectional bus transceivers (open-collector noninverted outputs)
74LS440E	Quad tridirectional bus transceivers (open-collector noninverted outputs)
74LS441	Quad tridirectional bus transceivers (open-collector inverted outputs)
74LS441E	Quad tridirectional bus transceivers (open-collector inverted outputs)
74LS442	Quad tridirectional bus transceivers (3-state noninverted outputs)
74LS442E	Quad tridirectional bus transceivers (3-state noninverted outputs)
74LS443	Quad tridirectional bus transceivers (3-state inverted outputs)
74LS443E	Quad tridirectional bus transceivers (3-state inverted outputs)
74LS444	Quad tridirectional bus transceivers (3-state inverted and noninverted outputs)
74LS444E	Quad tridirectional bus transceivers (3-state inverted and noninverted outputs)
74LS446	Quad bus transceivers with direction controls
74LS448	Quad tridirectional bus transceivers (open-collector inverted and noninverted outputs)
74LS448E	Quad tridirectional bus transceivers (open-collector inverted and noninverted outputs)
74LS449	Quad bus transceivers with direction controls
74LS600A	Memory refresh controllers
74LS602A	Memory refresh controllers
74LS603A	Memory refresh controllers
74LS608	Memory cycle controllers
74LS621	Octal bus transceivers
74LS622	Octal bus transceivers
74LS623	Octal bus transceivers
74LS638	Octal bus transceivers
74LS639	Octal bus transceivers
74LS640	Octal bus transceivers
74LS641	Octal bus transceivers
74LS642	Octal bus transceivers
74LS643	Octal bus transceivers
74LS644	Octal bus transceivers
74LS645	Octal bus transceivers
74LS646	Octal bus transceivers and registers
74LS647	Octal bus transceivers and registers
74LS648	Octal bus transceivers and registers

74LS649	Octal bus transceivers and registers
74LS651	Octal bus transceivers and registers
74LS652	Octal bus transceivers and registers
74LS653	Octal bus transceivers and registers
74LS654	Octal bus transceivers and registers
74S226	4-bit parallel latched bus transceivers
74S226E	4-bit parallel latched bus transceivers

VOLTAGE-CONTROLLED OSCILLATORS

74LS321	Crystal-controlled oscillator (with F/2 and F/4 count-down outputs)
74LS624	Voltage-controlled oscillator
74LS625	Voltage-controlled oscillator
74LS626	Voltage-controlled oscillator
74LS627	Voltage-controlled oscillator
74LS628	Voltage-controlled oscillator
74LS629	Voltage-controlled oscillator
74S124	Dual voltage-controlled oscillator

COMPONENT PIN SEQUENCES

7400:	OUTY	INA	INB
7401:	OUTY	INA	INB
7402:	OUTY	INA	INB
7403:	OUTY	INA	INB
7404:	OUT	IN	
7405:	OUT	IN	
7406:	OUT	IN	
7407:	OUT	IN	
7408:	OUTY	INA	INB
7409:	OUTY	INA	INB
7410:	OUTY	INA	INB
	INC		
7412:	OUTY	INA	INB
	INC		
7413:	OUTY	INA	INB
	INC	IND	
7414:	OUT	IN	
7416:	OUT	IN	
7417:	OUT	IN	
7420:	OUTY	INA	INB
	INC	IND	
7422:	OUTY	INA	INB
	INC	IND	
7425:	OUTY	STRB	INA
	INB	INC	IND
7426:	OUTY	INA	INB

7427:	OUTY INC	INA	INB
7428:	OUTY	INA	INB
7430:	OUTY INC INF	INA IND ING	INB INE INH
7432:	OUTY	INA	INB
7433:	OUTY	INA	INB
7437:	OUTY	INA	INB
7438:	OUTY	INA	INB
7439:	OUTY	INA	INB
7440:	OUTY INC	INA IND	INB
7442A:	0 3 6 9 C	1 4 7 A D	2 5 8 B
7443A:	0 3 6 9 C	1 4 7 A D	2 5 8 B
7444A:	0 3 6 9 C	1 4 7 A D	2 5 8 B
7445:	0 3 6 9 C	1 4 7 A D	2 5 8 B
7446A:	A D G	B E INA	C F INB RBO
7446E:	RBI A D G INC RBI	LMPTST B E INA IND	C F INB RBO
7447A:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO

7447E:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
7448:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
7448E:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
7449:	A D G A1	B E BI' A2	C F A0 A3
7451:	OUTY INC	INA IND	INB
7454:	OUTY INC INF	INA IND ING	INB INE INH
7470:	Q J1 K1 PR	Q' J2 K2 CLR	CP J' K'
7472:	Q J1 CP K3	Q' J2 K1 CLR	PR J3 K2
7473:	Q J	Q' K	CP CLR
7473E:	Q J	Q' K	CP CLR
7474:	Q D	Q' PR	CP CLR
7474E:	Q D	Q' PR	CP CLR
7475:	Q D	Q'	EN
7476:	Q J CLR	Q' K	CP PR
7476E:	Q J CLR	Q' K	CP PR

7480:	SUM	SUM'	CN.PL.1
	A1	A2	A
	AC	B1	B2
	B	BC	CN
7482:	S1	S2	C2
	A1	A2	B1
	B2	C0	
7483A:	S1	S2	S3
	S4	COUT	A1
	A2	A3	A4
	B1	B2	B3
	B4	CIN	
7485:	A.LT.B	A.EQ.B	A.GT.B
	A0	A1	A2
	A3	IA.LT.B	IA.EQ.B
	IA.GT.B	B0	B1
	B2	B3	
7486:	OUTY	INA	INB
7490A:	QA	QB	QC
	QD	ROA	ROB
	R9A	R9B	A
	BD		
7491A:	QH	QH'	CP
	A	B	
7492A:	QA	QB	QC
	QD	ROA	ROB
	A	B	
7493A:	QA	QB	QC
	QD	ROA	ROB
	A	B	
7494:	OUTY	PE1	PE2
	CLR	CP	SERIN
	P1A	P2A	P1B
	P2B	P1C	P2C
	P1D	P2D	
7495A:	QA	QB	QC
	QD	MODE	CP1
	CP2	SER	A
	B	C	D
7496:	QA	QB	QC
	QD	QE	CLR'
	CP	PE	SERIN
	A	B	C
	D	E	
7497:	Z	Y	ENO
	CP	STR	ENIN
	UC	CLR	A
	B	C	C
	E	F	

74100:	Q	D	EN
74104:	Q	Q'	PR
	J1	J2	J3
	JK	K1	K2
	K3	CP	CLR'
74105:	Q	Q'	PR
	J1	J2'	J3
	JK	K1	K2'
	K3	CP	CLR'
74107:	Q	Q'	CP
	J	K	CLR
74107E:	Q	Q'	CP
	J	K	CLR
74109:	Q	Q'	CP
	J	K'	PR
	CLR		
74109E:	Q	Q'	CP
	J	K'	PR
	CLR		
74110:	Q	Q'	PRE'
	J1	J2	J3
	CP	K1	K2
	K3	CLR'	
74111:	Q	Q'	PRE'
	J	CP	K
	CLR'		
74116:	Q1	Q2	Q3
	Q4	CLR'	ENG1
	ENG2	D1	D2
	D3	D4	
74120:	Y	Y'	R'
	S1'	S2'	C
	M		
74121:	Q	Q'	RINT
	CEXT	REXT	A1'
	A2'	B	
74122:	Q	Q'	A1'
	A2'	B1	B2
	CLR'	RINT	CEXT
	RX-CX		
74123:	Q	Q'	A'
	B	CLR	CEXT
	REXT		
74125:	OUT	EN'	IN
74126:	OUT	EN	IN
74128:	OUTY	INA	INB
74132:	OUTY	INA	INB

74136:	OUTY	INA	INB
74141:	0	1	2
	3	4	5
	6	7	8
	9	A	B
	C	D	
74142:	0	1	2
	3	4	5
	6	7	8
	9	QD'	STRB
	CP	CLR	
74142E:	0	1	2
	3	4	5
	6	7	8
	9	QD'	STRB
	CP	CLR	
74143:	QA	QB	QC
	QD	A	B
	C	D	E
	F	G	MAX
	DP	RBO	BI
	RBI	STRB	CLR
	PCEI	SCEI	CP
	IN-DP		
74143E:	QA	QB	QC
	QD	A	B
	C	D	E
	F	G	MAX
	DP	RBO	BI
	RBI	STRB	CLR
	PCEI	SCEI	CP
	IN-DP		
74144:	QA	QB	QC
	QD	A	B
	C	D	E
	F	G	MAX
	DP	RBO	BI
	RBI	STRB	CLR
	PCEI	SCEI	CP
	IN-DP		
74144E:	QA	QB	QC
	QD	A	B
	C	D	E
	F	G	MAX
	DP	RBO	BI
	RBI	STRB	CLR
	PCEI	SCEI	CP
	IN-DP		

74145:	0	1	2
	3	4	5
	6	7	8
	9	A	B
	C	D	
74147:	A	B	C
	D	IN1	IN2
	IN3	IN4	IN5
	IN6	IN7	IN8
	IN9		
74148:	E0	GS	A0
	A1	A2	0
	1	2	3
	4	5	6
	7	EI	
74150:	WOUT	STRB	SELD
	SELC	SELB	SELA
	E0	E1	E2
	E3	E4	E5
	E6	E7	E8
	E9	E10	E11
	E12	E13	E14
	E15		
74151A:	Y	W	STRB
	SELA	SELB	SELC
	D0	D1	D2
	D3	D4	D5
	D6	D7	
74153:	Y	SELA	SELB
	STRB	C0	C1
	C2	C3	
74154:	O0	O1	O2
	O3	O4	O5
	O6	O7	O8
	O9	O10	O11
	O12	O13	O14
	O15	A	B
	C	D	G1
	G2		
74155:	1Y0	1Y1	1Y2
	1Y3	2Y0	2Y1
	2Y2	2Y3	SELA
	SELB	STRB1	DATA1
	STRB2	DATA2	
74156:	1Y0	1Y1	1Y2
	1Y3	2Y0	2Y1
	2Y2	2Y3	SELA
	SELB	STRB1	DATA1
	STRB2	DATA2	

74157:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	
74159:	0	1	2
	3	4	5
	6	7	8
	9	10	11
	12	13	14
	15	G1	G2
	A	B	C
	D		
74160:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74161:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74162:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74163:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74164:	QA	QB	QC
	QD	QE	QF
	QG	QH	CP
	CLR	SERINA	SERINB
74165:	QH	QH'	SHFT-LD
	CP-INH	CP	SERIN
	A	B	C
	D	E	F
	G	H	
74166:	QH	CLR	SHFT-LD
	CP-INH	CP	SERIN
	A	B	C
	D	E	F
	G	H	

74167:	Z CP UN-CAS B0 B3	Y STRB CLR B1	ENOUT ENIN S-TO-9 B2
74170:	Q1 Q4 RA EN-R D3	Q2 WSELA RB D1 D4	Q3 WSELB EN-W D2
74172:	1QA 2QB 1W2 1R2 2W-R0 2GW' 1DA 2DB	2QA 1W0 1R0 1GW' 2W-R1 2GR' 2DA	1QB 1W1 1R1 1GR' 2W-R2 CP 1DB
74173:	1Q 4Q N CP 3D	2Q CLR G1' 1D 4D	3Q M G2' 2D
74174:	Q D	CLR'	CP
74175:	Q CP	Q' D	CLR'
74176:	QA QD CP1 B	QB LOAD' A C	QC CLR' CP2 D
74177:	QA QD CP1 B	QB LOAD' A C	QC CLR' CP2 D
74178:	QA QD CP B	QB SHIFT SER C	QC LOAD A D
74179:	QA QD SHIFT SER C	QB QD' LOAD A D	QC CLR' CP B
74180:	E-OUT ODD C F	ODD-OUT A D G	EVEN B E H

74181:	P ¹ CN.PL.4 F2 ¹ S1 M BO ¹ A2 ¹ B3 ¹	G ¹ FO ¹ F3 ¹ S2 CN A1 ¹ B2 ¹	A.EQ.B F1 ¹ S0 S3 A0 ¹ B1 ¹ A3 ¹
74182:	CNX P ¹ PO ¹ G1 ¹ P3 ¹	CNY G ¹ GO ¹ P2 ¹ G3 ¹	CNZ CN P1 ¹ G2 ¹
74184:	Y1 Y4 Y7 A D	Y2 Y5 Y8 B E	Y3 Y6 ENG C
74185A:	Y1 Y4 Y7 A D	Y2 Y5 Y8 B E	Y3 Y6 ENG C
74190:	MAX-MIN QB CTEN ¹ LOAD ¹ C	RCO ¹ QC D-U ¹ A D	QA QD CP B
74191:	MAX-MIN QB CTEN ¹ LOAD ¹ C	RCO ¹ QC D-U ¹ A D	QA QD CP B
74192:	CO ¹ QB CLR LOAD ¹ C	BO ¹ QC CPU A D	QA QD CPD B
74193:	CO ¹ QB CLR LOAD ¹ C	BO ¹ QC CPU A D	QA QD CPD B
74194:	QA QD S1 A D	QB CLR ¹ CP B SL	QC S0 SR C

74195:	QA QD CLR' K' C	QB QD' CP A D	QC SHFT-LD J B
74196:	QA QD CP1 B	QB CNT-LD A C	QC CLR CP2 D
74197:	QA QD CP1 B	QB CNT-LD A C	QC CLR CP2 D
74198:	QA QD QG S0 SRSER C F SLSER	QB QE QH S1 A D G	QC QF CLR' CP B E H
74199:	QA QD QG SH-LD' J B E H	QB QE QH CPINH K' C F	QC QF CLR' CP A D G
74221:	Q B REXT	Q' CLR	A CEXT
74246:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
74247:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
74248:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO

74249:	A	B	C
	D	E	F
	G	INA	INB
	INC	IND	RBO
	RBI	LMPTST	
74251:	Y	W	STRB
	SELA	SELB	SELC
	D0	D1	D2
	D3	D4	D5
	D6	D7	
74259:	Q0	Q1	Q2
	Q3	Q4	Q5
	Q6	Q7	SELA
	SELB	SELC	EN
	D	CLR	
74265:	1W	1Y	2W
	2Y	3W	3Y
	4W	4Y	1A
	2A	2B	3A
	3B	4A	
74273:	Q	CLR	CP
	D		
74276:	Q	CP	J
	K'	PR	CLR
74278:	Y4	Y3	Y2
	Y1	P1	STRB
	D4	D3	D2
	D1	P0	
74279:	1Q	2Q	1R'
	1S1'	1S2'	2R'
	2S1'		
74283:	S1	S2	S3
	S4	COU	A1
	A2	A3	A4
	B1	B2	B3
	B4	CIN	
74285:	Y0	Y1	Y2
	Y3	1A	1B
	1C	1D	2A
	2B	2C	2D
	ENGB	ENGA	
74290:	QA	QB	QC
	QD	R01	R02
	R91	R92	A
	B		
74293:	QA	QB	QC
	QD	R01	R02
	A	B	

74298:	QA	QB	QC
	QD	WS	CP
	A1	A2	B1
	B2	C1	C2
	D1	D2	
74351:	1Y	2Y	G ¹
	A	B	C
	1D0	1D1	1D2
	1D3	D4	D5
	D6	D7	2D0
	2D1	2D2	2D3
74365A:	OUT	IN	G1 ¹
	G2 ¹		
74366A:	OUT	IN	G1 ¹
	G2 ¹		
74367A:	Y1	Y2	Y3
	Y4	Y5	Y6
	G1 ¹	G2 ¹	A1
	A2	A3	A4
	A5	A5	
74368A:	Y1	Y2	Y3
	Y4	Y5	Y6
	G1 ¹	A1	A2
	A3	A4	G2 ¹
	A5	A6	
74376:	Q	CLR	CP
	J	K ¹	
74390:	QA	QB	QC
	QD	CLR	A
	B		
74393:	QA	QB	QC
	QD	CLR	A
74425:	OUT	EN ¹	IN
74426:	OUT	EN ¹	IN
74490:	QA	QB	QC
	QD	CLR	SET9
	CP		
74ALS00A:	OUTY	INA	INB
74ALS01:	OUTY	INA	INB
74ALS02:	OUTY	INA	INB
74ALS03A:	OUTY	INA	INB
74ALS04A:	OUT	IN	
74ALS05A:	OUT	IN	
74ALS08:	OUTY	INA	INB
74ALS09:	OUTY	INA	INB
74ALS10:	OUTY	INA	INB
	INC		
74ALS11:	OUTY	INA	INB
	INC		

74ALS12:	OUTY INC	INA	INB
74ALS15:	OUTY INC	INA	INB
74ALS20A:	OUTY INC	INA IND	INB
74ALS21:	OUTY INC	INA IND	INB
74ALS22A:	OUTY INC	INA IND	INB
74ALS27:	OUTY INC	INA	INB
74ALS28A:	OUTY	INA	INB
74ALS30:	OUTY INC INF	INA IND ING	INB INE INH
74ALS32:	OUTY	INA	INB
74ALS33A:	OUTY	INA	INB
74ALS34:	OUT	IN	
74ALS35:	Y	A	
74ALS37A:	OUTY	INA	INB
74ALS38A:	OUTY	INA	INB
74ALS40A:	OUTY INC	INA IND	INB
74ALS74:	Q D	Q' PR	CP CLR
74ALS74E:	Q D	Q' PR	CP CLR
74ALS86:	OUTY	INA	INB
74ALS109:	Q J CLR	Q' K'	CP PR
74ALS109E:	Q J CLR	Q' K'	CP PR
74ALS112:	Q J CLR	Q' K	CP PR
74ALS112E:	Q J CLR	Q' K	CP PR
74ALS113:	Q J	Q' K	CP PR
74ALS113E:	Q J	Q' K	CP PR
74ALS114:	Q J CLR	Q' K	CP PR

74ALS114E:	Q J	Q' K	CP PR
	CLR		
74ALS131:	Y0 Y3 Y6 A G1	Y1 Y4 Y7 B G2'	Y2 Y5 CP C
74ALS133:	OUTY C F I L	A D G J M	B E H K
74ALS137:	Y0 Y3 Y6 A G1	Y1 Y4 Y7 B G2'	Y2 Y5 GL' C
74ALS138:	Y0 Y3 Y6 B G' 2B	Y1 Y4 Y7 C 2A	Y2 Y5 A G1 G'
74ALS139:	Y0 Y3 EN	Y1 A	Y2 B
74ALS151:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74ALS153:	Y STRB C2	SELA C0 C3	SELB C1
74ALS157:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74ALS158:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74ALS160A:	RCO QC LOAD' CP C	QA QDR ENT A D	QB CLR' ENP B

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74ALS161:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP' B
74ALS162:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP' B
74ALS163:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP' B
74ALS164:	QA QD QG CP	QB QE QH A	QC QF CLR' B
74ALS165:	QH CP-INH A D G	QH' CP B E H	SHFT-LD SERIN C F
74ALS166:	QH CP-INH A D G	CLR' CP B E H	SHFT-LD SERIN C F
74ALS168:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B
74ALS169:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B
74ALS174:	Q D	CLR'	CP
74ALS175:	Q CP	Q' D	CLR'
74ALS190:	MAX-MIN QB CTEN' LOAD' C	RCO' QC D-U' A D	QA QD CP B

74ALS191:	MAX-MIN QB CTEN' LOAD' C	RCO' QC D-U' A D	QA QD CP B
74ALS192:	CO' QB CLR LOAD' C	BO' QC UP A D	QA QD DOWN B
74ALS193:	CO' QB CLR LOAD' C	BO' QC UP A D	QA QD DOWN B
74ALS240:	1Y1 1Y4 2Y3 2G' 1A3 2A2	1Y2 2Y1 2Y4 1A1 1A4 2A3	1Y3 2Y2 1G' 1A2 2A1 2A4
74ALS241A:	1Y1 1Y4 2Y3 2G' 1A3 2A2	1Y2 2Y1 2Y4 1A1 1A4 2A3	1Y3 2Y2 1G' 1A2 2A1 2A4
74ALS242A:	B1 B4 AB A3	B2 GBA A1 A4	B3 G' A2
74ALS243A:	B1 B4 AB A3	B2 GBA A1 A4	B3 G' A2
74ALS244A:	1Y1 1Y4 2Y3 2G' 1A3 2A2	1Y2 2Y1 2Y4 1A1 1A4 2A3	1Y3 2Y2 1G' 1A2 2A1 2A4
74ALS245A:	B1 B4 B7 DIR A3 A6	B2 B5 B8 A1 A4 A7	B3 B6 G' A2 A5 A8

74ALS251:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74ALS253:	Y OCNTRL C2	SELA C0 C3	SELB C1
74ALS257B:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74ALS258:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74ALS259:	Q0 Q3 Q6 S1 D Q D	Q1 Q4 Q7 S2 CLR' CLR	Q2 Q5 S0 G' CP
74ALS299:	PQA B-QB E-QE H-QH G2' CP	PQH C-QC F-QF CLR' S0 SR	A-QA D-QD G-QG G1' S1 SL
74ALS323:	PQA B-QB E-QE H-QH G2' CP	PQH C-QC F-QF CLR' S0 SR	A-QA D-QD G-QG G1' S1 SL
74ALS352:	Y G' C2	A C0 C3	B C1
74ALS353:	Y G' C2	A C0 C3	B C1
74ALS365:	OUT G2'	IN	G1'
74ALS366:	Y A	G1'	G2'

74ALS367:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	G1'	G2'	1A1
	1A2	1A3	1A4
	2A1	2A2	
74ALS368:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	G1'	G2'	1A1
	1A2	1A3	1A4
	2A1	2A2	
74ALS373:	Q	O-CONT'	EN-G
	D		
74ALS374:	Q	O-CONT'	CP
	D		
74ALS465A:	Y	G1'	G2'
	A		
74ALS466A:	Y	G1'	G2'
	A		
74ALS467A:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	2G'	1A1	1A2
	1A3	1A4	2A1
	2A2	2A3	2A4
74ALS468A:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	2G'	1A1	1A2
	1A3	1A4	2A1
	2A2	2A3	2A4
74ALS518:	PEQQ	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74ALS519:	PEQQ	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74ALS520:	P.EQ.Q'	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7

74ALS521:	P.EQ.Q'	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74ALS522:	P.EQ.Q'	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74ALS526:	P.EQ.Q'	P0	P1
	P2	P3	P4
	P5	P6	P7
	P8	P9	P10
	P11	P12	P13
	P14	P15	G'
74ALS527:	P.EQ.Q'	P0	P1
	P2	P3	P4
	P5	P6	P7
	G'	P8	P9
	P10	P11	Q8
	Q9	Q10	Q11
74ALS528:	P.EQ.Q'	P0	P1
	P2	P3	P4
	P5	P6	P7
	P8	P9	P10
	P11	G'	
74ALS533:	1Q'	2Q'	3Q'
	4Q'	5Q'	6Q'
	7Q'	8Q'	OC'
	C	1D	2D
	3D	4D	5D
	6D	7D	8D
74ALS534:	Q'	OC'	C
	D		
74ALS538:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	AL
	OE1'	OE2'	A
	B	C	G1
	G2	G3'	G4'
74ALS539:	Y0	Y1	Y2
	Y3	AL	OE'
	A	B	G'
74ALS540:	Y	G1'	G2'
	A		

74ALS541:	Y	G1'	G2'
	A		
74ALS560A:	CCO	RCO	QA
	QB	QC	QD
	G'	ENT	ENP
	SCLR'	SLOAD'	CP
	ACLR'	ALOAD'	A
	B	C	D
74ALS561A:	CCO	RCO	QA
	QB	QC	QD
	G'	ENT	ENP
	SCLR'	SLOAD'	CP
	ACLR'	ALOAD'	A
	B	C	D
74ALS563:	Q'	OC'	C
	D		
74ALS564:	Q'	OC'	CP
	D		
74ALS568A:	CCO'	RCO'	QA
	QB	QC	QD
	G'	U-D	CP
	ENT'	ENP'	SCLR'
	LOAD'	ACLR'	A
	B	C	D
74ALS569A:	CCO'	RCO'	QA
	QB	QC	QD
	G'	U-D	CP
	ENT'	ENP'	SCLR'
	LOAD'	ACLR'	A
	B	C	D
74ALS573:	Q	OC'	C
	D		
74ALS574:	Q	OC'	CP
	D		
74ALS575:	Q	OC'	CP
	CLR'	D	
74ALS576:	Q'	OC'	CP
	D		
74ALS577:	Q'	OC'	CP
	CLR'	D	
74ALS580:	Q'	OC'	C
	D		
74ALS620A:	B	GBA'	GAB
	A		
74ALS621A:	B	GBA'	GAB
	A		
74ALS622A:	B	GBA'	GAB
	A		

74ALS623A:	B	GBA'	GAB
	A		
74ALS638:	B	G'	DIR
	A		
74ALS639A:	B	G'	DIR
	A		
74ALS640A:	B	G'	DIR
	A		
74ALS641A:	B	G'	DIR
	A		
74ALS642A:	B	G'	DIR
	A		
74ALS643A:	B	G'	DIR
	A		
74ALS644A:	B	G'	DIR
	A		
74ALS645A:	B	G'	DIR
	A		
74ALS646:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74ALS647:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74ALS648:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74ALS649:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74ALS651:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74ALS652:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74ALS653:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74ALS654:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74ALS688:	P.EQ.Q'	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7

74ALS689:	P.EQ.Q ¹	G ¹	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74ALS804:	OUTY	INA	INB
74ALS805:	OUTY	INA	INB
74ALS808:	OUTY	INA	INB
74ALS832:	OUTY	INA	INB
74ALS841:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	OC ¹	C
	1D	2D	3D
	4D	5D	6D
	7D	8D	9D
	10D		
74ALS842:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	OC ¹	C
	1D ¹	2D ¹	3D ¹
	4D ¹	5D ¹	6D ¹
	7D ¹	8D ¹	9D ¹
	10D ¹		
74ALS843:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	OC ¹	CLR ¹	PRE ¹
	C	1D	2D
	3D	4D	5D
	6D	7D	8D
	9D		
74ALS844:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	OC ¹	PRE ¹	CLR ¹
	C	1D ¹	2D ¹
	3D ¹	4D ¹	5D ¹
	6D ¹	7D ¹	8D ¹
	9D ¹		
74ALS845:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1 ¹
	OC2 ¹	OC3 ¹	PRE ¹
	CLR ¹	C	1D
	2D	3D	4D
	5D	6D	7D
	8D		

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74ALS846:	1Q 4Q 7Q OC2' CLR' 2D' 5D' 8D'	2Q 5Q 8Q OC3' C 3D' 6D'	3Q 6Q OC1' PRE' 1D' 4D' 7D'
74ALS857:	Y S1 B	OPEREQ0 COMP	S0 A
74ALS873:	Q1 Q4 CLR' D3	Q2 OC' D1 D4	Q3 C D2
74ALS874:	Q1 Q4 CLR' D3	Q2 OC' D1 D4	Q3 CP D2
74ALS876:	Q1 Q4 PRE' D3	Q2 OC' D1 D4	Q3 CP D2
74ALS878:	Q1 Q4 CLR' D3	Q2 OC' D1 D4	Q3 CP D2
74ALS879:	Q1' Q4' CLR' D3	Q2' OC' D1 D4	Q3' CP D2
74ALS880:	Q1' Q4' PRE' D3	Q2' OC' D1 D4	Q3' C D2
74F00:	OUTY	INA	INB
74F02:	OUTY	INA	INB
74F04:	OUT	IN	
74F08:	OUTY	INA	INB
74F10:	OUTY INC	INA	INB
74F11:	OUTY INC	INA	INB
74F13:	OUTY INC	INA IND	INB
74F14:	OUT	IN	
74F20:	OUTY INC	INA IND	INB
74F32:	OUTY	INA	INB

74F37:	OUTY	INA	INB
74F38:	OUTY	INA	INB
74F40:	OUTY	INA	INB
	INC	IND	
74F64:	OUTY	INA	INB
	INC	IND	INE
	INF	ING	INH
	INI	INJ	INK
74F74:	Q	Q'	CP
	D	SD	RD
74F74E:	Q	Q'	CP
	D	PR	CLR
74F85:	A.LT.B	A.EQ.B	A.GT.B
	A0	A1	A2
	A3	IA.LT.B	IA.EQ.B
	IA.GT.B	B0	B1
	B2	B3	
74F86:	OUTY	INA	INB
74F109:	Q	Q'	CP
	J	K'	PR
	CLR		
74F109E:	Q	Q'	CP
	J	K'	PR
	CLR		
74F112:	Q	Q'	CP
	J	K	PR
	CLR		
74F112E:	Q	Q'	CP
	J	K	PR
	CLR		
74F113:	Q	Q'	CP
	J	K	PR
74F113E:	Q	Q'	CP
	J	K	PR
74F114:	Q	Q'	CP
	J	K	PRE'
	CLR'		
74F114E:	Q	Q'	CP
	J	K	PRE'
	CLR'		
74F132:	OUTY	INA	INB
74F138:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	A
	B	C	G2A
	G2B	G1	
74F139:	Y0	Y1	Y2
	Y3	A	B
	G'		

74F148:	EO	GS	A0
	A1	A2	0
	1	2	3
	4	5	6
	7	EI	
74F151A:	Y	W	STRB
	SELA	SELB	SELC
	D0	D1	D2
	D3	D4	D5
	D6	D7	
74F153:	Y	SELA	SELB
	STRB	C0	C1
	C2	C3	
74F157A:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	
74F158A:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	
74F160A:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74F161A:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74F162A:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74F163A:	RCO	QA	QB
	QC	QD	CLR
	LD	ENT	ENP
	CP	A	B
	C	D	
74F164:	QA	QB	QC
	QD	QE	QF
	QG	QH	CLR'
	CP	A	B

74F168:	RCO ¹ QC U-D ¹ CP C	QA QD ENT ¹ A D	QB LOAD ¹ ENP ¹ B
74F169:	RCO ¹ QC U-D ¹ CP C	QA QD ENT ¹ A D	QB LOAD ¹ ENP ¹ B
74F174:	Q D	CLR ¹	CP
74F175:	Q CP	Q ¹ D	CLR ¹
74F181:	P ¹ CN.PL.4 F2 ¹ S1 M BO ¹ A2 ¹ B3 ¹	G ¹ FO ¹ F3 ¹ S2 CN A1 ¹ B2 ¹	A.EQ.B F1 ¹ S0 S3 A0 ¹ B1 ¹ A3 ¹
74F182:	CO0 P ¹ PO ¹ G1 ¹ P3 ¹	CO1 G ¹ GO ¹ P2 ¹ G3 ¹	CO2 CN P1 ¹ G2 ¹
74F190:	MAX-MIN QB CTEN ¹ LOAD ¹ C	RCO ¹ QC D-U ¹ A D	QA QD CP B
74F191:	MAX-MIN QB CTEN ¹ LOAD ¹ C	RCO ¹ QC D-U ¹ A D	QA QD CP B
74F192:	CO ¹ QB CLR LOAD ¹ C	BO ¹ QC CPU A D	QA QD CPD B
74F193:	CO ¹ QB CLR LOAD ¹ C	BO ¹ QC CPU A D	QA QD CPD B

74F194:	QA QD S1 A D	QB CLR' CP B SL	QC SO SR C
74F195:	QA QD CLR' K' C Y	QB QD' CP A D G'	QC SHFT-LD' J B A
74F240:	Y	G'	A
74F241:	1Y1 1Y4 2Y3 1A2 2A1 2A4	1Y2 2Y1 2Y4 1A3 2A2 G'	1Y3 2Y2 1A1 1A4 2A3 G
74F242:	B A	GBA	G'AB
74F243:	B A	GBA	G'AB
74F244:	Y	G'	A
74F245:	B A	G'	DIR
74F251A:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74F253:	Y OCNTRL C2	SELA C0 C3	SELB C1
74F256:	Q0A Q3A Q DB A1	Q1A Q0B 2B CLR E	Q2A Q1B Q3B DA A0
74F257:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74F258:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B

74F259:	Q0 Q3 Q6 SELB D	Q1 Q4 Q7 SELC CLR	Q2 Q5 SELA EN
74F269:	TC' Q2 Q5 PE' U-D' P1 P4 P7	Q0 Q3 Q6 CEP' CP P2 P5	Q1 Q4 Q7 CET' P0 P3 P6
74F273:	Q D	CLR	CP
74F280:	SE I1 I4 I7	SO I2 I5 I8	I0 I3 I6
74F283:	S1 S4 A2 B1 B4	S2 COUT A3 B2 CIN	S3 A1 A4 B3
74F298:	QA QD A1 B2 D1	QB WS A2 C1 D2	QC CP B1 C2
74F299:	PQA B-QB E-QE H-QH G2' CP	PQH C-QC F-QF CLR' SO SR	A-QA D-QD G-QG G1' S1 SL
74F322:	PQH C-QC F-QF CLR' S-P DS	A-QA D-QD G-QG OE' CLK D0	B-QB E-QE H-QH G' SE' D1
74F323:	PQA B-QB E-QE H-QH G2' CP	PQH C-QC F-Q CLR' SO SR	A-QA D-QD FG-QG G1' S1 SL

74F350:	Y3	Y2	Y1
	Y0	OE'	S0
	S1	D3	D2
	D1	D0	D-1
	D-2	D-3	
74F352:	Y	A	B
	G'	C0	C1
	C2	C3	
74F353:	Y	A	B
	G'	C0	C1
	C2	C3	
74F365:	OUT	IN	G1'
	G2'		
74F366:	OUT	IN	G1'
	G2'		
74F367:	Y1	Y2	Y3
	Y4	Y5	Y6
	G1'	A1	A2
	A3	A4	G2'
	A5	A6	
74F368:	Y1	Y2	Y3
	Y4	Y5	Y6
	G1'	A1	A2
	A3	A4	G2'
	A5	A6	
74F373:	Q	O-CONT'	EN-G
	D		
74F374:	Q	O-CONT'	CP
	D		
74F377:	Q0	Q1	Q2
	Q3	Q4	Q5
	Q6	Q7	CE'
	CP	D0	D1
	D2	D3	D4
	D5	D6	D7
74F378:	Q0	Q1	Q2
	Q3	Q4	Q5
	E'	CP	D0
	D1	D2	D3
	D4	D5	
74F379:	Q	Q'	G'
	CP	D	
74F381:	P'	G'	F0
	F1	F2	F3
	S0	S1	S2
	CN	A0	B0
	A1	B1	A2
	B2	A3	B3

74F382:	F0 OVR S0 CN A1 B2	F1 CN4 S1 A0 B1 A3	F2 F3 S2 B0 A2 B3
74F384:	PROD CP X2 X5 Y	CLR' X0 X3 X6 K	MODE X1 X4 X7
74F385:	S S-A'	CLR' A	CP B
74F395:	Q0 Q3 OE' DS D2	Q1 QS PE DO D3	Q2 MR' CP' D1
74F398:	QA QB' QD CP B1 C2	QA' QC QD' A1 B2 D1	QB QC' WS A2 C1 D2
74F399:	QA QD A1 B2 D1	QB WS A2 C1 D2	QC CP B1 C2
74F401:	Q S1 CP' MR	ER S2 CWE	S0 D P'
74F402:	ER S0 S3 CP P	D-CW S1 D SEI MR	RO S2 CWE RFB
74F403:	Q0 Q3 ORE' IES' TOS' MR' DO D3	Q1 QS OES' CPSI' CPSO' PL D1	Q2 IRF' TTS' TOP EO' DS D2

74F407:	X0	X1	X2
	X3	00	01
	02	03	00
	I0	I1	I2
	I3	D0	D1
	D2	D3	CI
	EOX'	E00'	CP
	EX		
74F410:	Q0	Q1	Q2
	Q3	WS'	CS'
	CP	OE'	A0
	A1	A2	A3
	D0	D1	D2
	D3		
74F411:	EMPTY	HALFFULL	FULL
	WE	CS0	RDLE
	WRLE	WRLOE	RDREADY
	WRREADY	A0	A1
	A2	A3	A4
	A5	A6	A7
	A8	A9	A10
	A11	A12	A13
	D0	D1	D2
	RDREQ	WRREQ	MCO
	MC1	MC2	BRD
	BWR	CE	CP
	RESET		
74F413:	00	01	02
	03	OR	IR
	D0	D1	D2
	D3	SI	SO
	MR'		
74F418:	ERR'	ME'	D0
	D1	D2	D3
	D4	D5	D6
	D7	D8	D9
	D10	D11	D12
	D13	D14	D15
	D16	D17	D18
	D19	D20	D21
	D22	D23	D24
	D25	D26	D27
	D28	D29	D30
	D31	CB0	CB1
	CB2	CB3	CB4
	CB5	CB6	DAST
	OD	CBST	MODE

74F420:	C0	C1	C2
	C3	C4	C5
	C6	SEF	DEF
	D0	D1	D2
	D3	D4	D5
	D6	D7	D8
	D9	D10	D11
	D12	D13	D14
	D15	D16	D17
	D18	D19	D20
	D21	D22	D23
	D24	D25	D26
	D27	D28	D29
	D30	D31	S0
	S1	CB	
74F432:	INT ¹	O0 ¹	O1 ¹
	O2 ¹	O3 ¹	O4 ¹
	O5 ¹	O6 ¹	O7 ¹
	S1 ¹	S2	M
	STB	CLR ¹	D0
	D1	D2	D3
	D4	D5	D6
	D7		
74F433:	Q0	Q1	Q2
	Q3	QS	IRF ¹
	ORE ¹	PL	CPSI ¹
	IES ¹	TTS ¹	MR ¹
	OES ¹	TOP	TOS ¹
	CPSO ¹	EO ¹	D0
	D1	D2	D3
	DS		
74F505:	Q0	Q1	Q2
	Q3	Q4	Q5
	Q6	Q7	CC ¹
	OE ¹	CP	CNV ¹
	S-H ¹	VIN.MI	VIN.PL
	VTRIM		
74F521:	P.EQ.Q ¹	G ¹	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74F524:	C-SO	LT	EQ
	GT	S0	S1
	C-SI	CP	SE ¹
	M	I-00	I-01
	I-02	I-03	I-04
	I-05	I-06	I-07

74F525:	Q	Q.DIV.2	XTAL
	M0	M1	M2
	MR ¹	CP	WE ¹
	XTR	D0	D1
	D2	D3	D4
	D5	D6	D7
	D8	D9	D10
	D11	D12	D13
	D14	D15	
74F533:	Q ¹	OC ¹	C
	D		
74F534:	Q ¹	OC ¹	C
	D		
74F537:	00	01	02
	03	04	05
	06	07	08
	09	A0	A1
	A2	A3	P
	E1 ¹	E2	OE ¹
74F538:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	AL
	OE1 ¹	OE2 ¹	A
	B	C	G1
	G2	G3 ¹	G4 ¹
74F539:	Y0	Y1	Y2
	Y3	AL	OE ¹
	A	B	G ¹
74F540:	Y	G1 ¹	G2 ¹
	A		
74F541:	Y	G1 ¹	G2 ¹
	A		
74F543:	A	B	OEAB ¹
	OEBA ¹	CEAB ¹	CEBA ¹
	LEAB ¹	LEBA ¹	
74F544:	A ¹	B ¹	OEAB ¹
	OEBA ¹	CEAB ¹	CEBA ¹
	LEAB ¹	LEBA ¹	
74F545:	A	B	OE ¹
	T-R ¹		
74F547:	ACK ¹	00 ¹	01 ¹
	02 ¹	03 ¹	04 ¹
	05 ¹	06 ¹	07 ¹
	A0	A1	A2
	E1 ¹	E2	E3
	LE	RD ¹	WR ¹

74F548:	ACK ¹	00 ¹	01 ¹
	02 ¹	03 ¹	04 ¹
	05 ¹	06 ¹	07 ¹
	A0	A1	A2
	E1 ¹	E2 ¹	E3
	E4	RD ¹	WR ¹
74F550:	FAB	FBA	B0
	B1	B2	B3
	B4	B5	B6
	B7	A0	A1
	A2	A3	A4
	A5	A6	A7
	CFAB	CFBA	CPA
	CPB	CEA	CEB
	OEA	OEB	
74F551:	FAB	FBA	B0
	B1	B2	B3
	B4	B5	B6
	B7	A0	A1
	A2	A3	A4
	A5	A6	A7
	CFAB	CFBA	CPA
	CPB	CEA	CEB
	OEA	OEB	
74F563:	Q ¹	OC ¹	C
	D		
74F564:	Q ¹	OC ¹	CP
	D		
74F568:	CCO ¹	RCO ¹	QA
	QB	QC	QD
	G ¹	U-D	CP
	ENT ¹	ENP ¹	SCLR ¹
	LOAD ¹	ACLR ¹	A
	B	C	D
74F569:	CCO ¹	RCO ¹	QA
	QB	QC	QD
	G ¹	U-D	CP
	ENT ¹	ENP ¹	SCLR ¹
	LOAD ¹	ACLR ¹	A
	B	C	D
74F573:	Q	OC ¹	C
	D		
74F574:	Q	OC ¹	CP
	D		
74F579:	I-00	I-01	I-02
	I-03	I-04	I-05
	I-06	I-07	TC ¹
	PE ¹	CS ¹	MR ¹
	SR ¹	U-D ¹	CP
	CEP ¹	CET ¹	OE ¹

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74F582:	F0	F1	F2
	F3	AEQB	P ¹
	G ¹	C-BN4 ¹	A0
	A1	A2	A3
	B0	B1	B2
	B3	C-B ¹	A ¹ -S
74F583:	S0	S1	S2
	S3	C-NEQ4	A0
	A1	A2	A3
	B0	B1	B2
	B3	CN	
74F588:	B0	B1	B2
	B3	B4	B5
	B6	B7	A0
	A1	A2	A3
	A4	A5	A6
	A7	OE ¹	T-R ¹
74F604:	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	A-B ¹
	CP	A1	B1
	A2	B2	A3
	B3	A4	B4
	A5	B5	A6
	B6	A7	B7
	A8	B8	
74F610:	M00	M01	M02
	M03	M04	M05
	M06	M07	M08
	M09	M010	M011
	I-05	I-06	I-07
	I-08	I-09	I-010
	I-011	I-00	I-01
	I-02	I-03	I-04
	CS ¹	MM ¹	ME ¹
	LE	STB ¹	R-W ¹
	RS0	RS1	RS2
	RS3	MA0	MA1
	MA2	MA3	
74F612:	M00	M01	M02
	M03	M04	M05
	M06	M07	M08
	M09	M010	M011
	I-05	I-06	I-07
	I-08	I-09	I-010
	I-011	I-00	I-01
	I-02	I-03	I-04

	CS ¹	MM ¹	ME ¹
	STB ¹	R-W ¹	RS0
	RS1	RS2	RS3
	MA0	MA1	MA2
	MA3		
74F620:	B	GBA ¹	GAB
	A		
74F623:	B	GBA ¹	GAB
	A		
74F630:	SEF	DEF	DB0
	DB1	DB2	DB3
	DB4	DB5	DB6
	DB7	DB8	DB9
	DB10	DB11	DB12
	DB13	DB14	DB15
	CB0	CB1	CB2
	CB3	CB4	CB5
	S0	S1	
74F632:	MERR ¹	ERR ¹	DB0
	DB1	DB2	DB3
	DB4	DB5	DB6
	DB7	DB8	DB9
	DB10	DB11	DB12
	DB13	DB14	DB15
	DB16	DB17	DB18
	DB19	DB20	DB21
	DB22	DB23	DB24
	DB25	DB26	DB27
	DB28	DB29	DB30
	DB31	CB0	CB1
	CB2	CB3	CB4
	CB5	CB6	S0
	S1	OECB ¹	LEDBO ¹
	OEB0 ¹	OEB1 ¹	OEB2 ¹
	OEB3 ¹		
74F646:	B	G ¹	DIR
	CBA	SBA	CAB
	SAB	A	
74F648:	B	G ¹	DIR
	CBA	SBA	CAB
	SAB	A	
74F655:	PO	PO ¹	O0 ¹
	O1 ¹	O2 ¹	O3 ¹
	O4 ¹	O5 ¹	O6 ¹
	O7 ¹	PI	OE1 ¹
	OE2 ¹	OE3 ¹	I0
	I1	I2	I3
	I4	I5	I6
	I7		

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74F656:	PO	PO'	O0
	O1	O2	O3
	O4	O5	O6
	O7	PI	OE1'
	OE2'	OE3'	I0
	I1	I2	I3
	I4	I5	I6
	I7		
74F657:	PAR	ERROR'	B0
	B1	B2	B3
	B4	B5	B6
	B7	A0	A1
	A2	A3	A4
	A5	A6	A7
	T-R'	OE	OE'
	E-0		
74F673A:	SER-Q15	Y0	Y1
	Y2	Y3	Y4
	Y5	Y6	Y7
	Y8	Y9	Y10
	Y11	Y12	Y13
	Y14	Y15	STRCLR'
	STRCLK	R-W	CS'
	SHCLK'		
74F674:	SER-Q15	MODE	R-W
	CS'	CP	P0
	P1	P2	P3
	P4	P5	P6
	P7	P8	P9
	P10	P11	P12
	P13	P14	P15
74F675A:	S0	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
	Q8	Q9	Q10
	Q11	Q12	Q13
	Q14	Q15	CS'
	SHCP'	R-W'	STCP
	SI		
74F676:	S0	CS'	CP'
	SI	M	P0
	P1	P2	P3
	P4	P5	P6
	P7	P8	P9
	P10	P11	P12
	P13	P14	P15

74F779:	TC'	I-00	I-01
	I-02	I-03	I-04 A
	I-05	I-06	I-07
	CET'	CP	OE'
	S0	S1	
74F784:	SP	S-B	PL'
	M	K	CP
	A-S'	Y	BN
	BN-1	X0	X1
	X2	X3	X4
	X5	X6	X7
74F821:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	OC'	CP
	1D	2D	3D
	4D	5D	6D
	7D	8D	9D
	10D		
74F823:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	OC'	CLR'	CPEN'
	CP	1D	2D
	3D	4D	5D
	6D	7D	8D
	9D		
74F825:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1'
	OC2'	OC3'	CLR'
	CPEN'	CP	1D
	2D	3D	4D
	5D	6D	7D
	8D		
74F827:	00	01	02
	03	04	05
	06	07	08
	09	OE1'	OE2'
	D0	D1	D2
	D3	D4	D5
	D6	D7	D8
	D9		
74F828:	00'	01'	02'
	03'	04'	05'
	06'	07'	08'
	09'	OE1'	OE2'

	D0	D1	D2
	D3	D4	D5
	D6	D7	D8
	D9		
74F841:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	OC ¹	C
	1D	2D	3D
	4D	5D	6D
	7D	8D	9D
	10D		
74F843:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	OC ¹	CLR ¹	PRE ¹
	C	1D	2D
	3D	4D	5D
	6D	7D	8D
	9D		
74F845:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1 ¹
	OC2 ¹	OC3 ¹	PRE ¹
	CLR ¹	C	1D
	2D	3D	4D
	5D	6D	7D
	8D		
74AS00:	OUTY	INA	INB
74AS02:	OUTY	INA	INB
74AS04:	OUT	IN	
74AS08:	OUTY	INA	INB
74AS10:	OUTY	INA	INB
	INC		
74AS11:	OUTY	INA	INB
	INC		
74AS20:	OUTY	INA	INB
	INC	IND	
74AS21:	OUTY	INA	INB
	INC	IND	
74AS27:	OUTY	INA	INB
	INC		
74AS30:	UTY	INA	INB
	INC	IND	INE
	INF	ING	INH
74AS32:	OUTY	INA	INB
74AS34:	OUTY	IN	
74AS74:	Q	Q ¹	CP
	D	PR	CLR

74AS74E:	Q	Q ¹	CP
	D	PR	CLR
74AS95:	QA	QB	QC
	QD	MODE	CP1
	CP2	SER	A
	B	C	D
74AS109:	Q	Q ¹	CP
	J	K ¹	PR
	CLR		
74AS109E:	Q	Q ¹	CP
	J	K ¹	PR
	CLR		
74AS112:	Q	Q ¹	CP
	J	K	PR
	CLR		
74AS112E:	Q	Q ¹	CP
	J	K	PR
	CLR		
74AS113:	Q	Q ¹	CP
	J	K	PR
74AS113E:	Q	Q ¹	CP
	J	K	PR
74AS114:	Q	Q ¹	CP
	J	K	PRE ¹
	CLR ¹		
74AS114E:	Q	Q ¹	CP
	J	K	PRE ¹
	CLR ¹		
74AS131:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	CP
	A	B	C
	G1	G2 ¹	
74AS137:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	GL ¹
	A	B	C
	G1	G2 ¹	
74AS138:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	A
	B	C	G2A
	G2B	G1	
74AS139:	Y0	Y1	Y2
	Y3	A	B
	EN		

74AS151:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74AS153:	Y STRB C2	SELA C0 C3	SELB C1
74AS157:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74AS158:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74AS160:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP B
74AS161:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP B
74AS162:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP B
74AS163:	RCO QC LOAD' CP C	QA QD ENT A D	QB CLR' ENP B
74AS168:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B
74AS169:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B

74AS174:	Q	CLR'	CP
	D		
74AS175:	Q	Q'	CLR'
	CP	D	
74AS181A:	P'	G'	A.EQ.B
	CN.PL.4	F0'	F1'
	F2'	F3'	S0
	S1	S2	S3
	M	CN	A0'
	B0'	A1'	B1'
	A2'	B2'	A3'
	B3'		
74AS182:	CO0	CO1	CO2
	P'	G'	CN
	PO'	GO'	P1'
	G1'	P2'	G2'
	P3'	G3'	
74AS194:	QA	QB	QC
	QD	CLR'	S0
	S1	CP	SR
	A	B	C
	D	SL	
74AS195:	QA	QB	QC
	QD	QD'	SHFT-LD'
	CLR'	CP	J
	K'	A	B
	C	D	
74AS230:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	2G'	1A1	1A2
	1A3	1A4	2A1
	2A2	2A3	2A4
74AS231:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	2G	1A1	1A2
	1A3	1A4	2A1
	2A2	2A3	2A4
74AS240:	Y	G'	A
74AS241:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1A1
	1A2	1A3	1A4
	2A1	2A2	2A3
	2A4	G'	G
74AS242:	B	GBA	G'AB
	A		

74AS243:	B	GBA	G'AB
	A		
74AS244:	Y	G'	A
74AS245:	B	G'	DIR
	A		
74AS250:	W'	G'	A
	B	C	D
	E0	E1	E2
	E3	E4	E5
	E6	E7	E8
	E9	E10	E11
	E12	E13	E14
	E15		
74AS251:	Y	W	STRB
	SELA	SELB	SELC
	D0	D1	D2
	D3	D4	D5
	D6	D7	
74AS253:	Y	SELA	SELB
	OCNTRL	C0	C1
	C2	C3	
74AS257:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	
74AS258:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	
74AS264:	C0	C1	C2
	RCOA	RCOB	CE
	B0	A0	B1
	A1	B2	A2
	B3	A3	
74AS280:	SUM-E	SUM-OD	A
	B	C	D
	E	F	G
	H'	I	
74AS282:	CN'	CNX	CNY
	CNZ	P'	G'
	S0	S1	CNA
	CNB	P0'	G0'
	P1'	G1'	P2'
	G2'	P3'	G3'
74AS286:	PI-O	PERR	A
	B	C	D
	E	F	G
	H	I	XMIT'

74AS298:	QA QD A1 B2 D1	QB WS A2 C1 D2	QC CP B1 C2
74AS299:	PQA B-QB E-QE H-QH G2' ¹ CP	PQH C-QC F-QF CLR' ¹ S0 SR	A-QA D-QD G-QG G1' ¹ S1 SL
74AS323:	PQA B-QB E-QE H-QH G2' ¹ CP	PQH C-QC F-QF CLR' ¹ S0 SR	A-QA D-QD G-QG G1' ¹ S1 SL
74AS352:	Y G' ¹ C2	A C0 C3	B C1
74AS353:	Y G' ¹ C2	A C0 C3	B C1
74AS373:	Q D	O-CONT' ¹	EN-G
74AS374:	Q D	O-CONT' ¹	CP
74AS395:	QA QD OC' ¹ SER C	QB QD' ¹ LD-SH' ¹ A D	QC CLR' ¹ CP B
74AS533:	Q' ¹ D	OC' ¹	C
74AS534:	Q' ¹ D	OC' ¹	C
74AS573:	Q D	OC' ¹	C
74AS574:	Q D	OC' ¹	CP
74AS575:	Q CLR' ¹	OC' ¹ D	CP
74AS576:	Q' ¹ D	OC' ¹	CP
74AS577:	Q' ¹ CLR' ¹	OC' ¹ D	CP
74AS580:	Q' ¹ D	OC' ¹	C

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74AS620:	B	GBA'	GAB
	A		
74AS621:	B	GBA'	GAB
	A		
74AS622:	B	GBA'	GAB
	A		
74AS623:	B	GBA'	GAB
	A		
74AS638:	B	G'	DIR
	A		
74AS639:	B	G'	DIR
	A		
74AS640:	B	G'	DIR
	A		
74AS641:	B	G'	DIR
	A		
74AS642:	B	G'	DIR
	A		
74AS643:	B	G'	DIR
	A		
74AS644:	B	G'	DIR
	A		
74AS645:	B	G'	DIR
	A		
74AS646:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74AS648:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74AS651:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74AS652:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74AS756:	Y	G'	A
74AS757:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	1A1	1A2	1A3
	1A4	2G	2A1
	2A2	2A3	2A4
74AS758:	B	A	GAB
	GAB'		
74AS759:	B	A	GAB
	GAB'		

74AS760:	Y	G'	A
74AS762:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	2G'	1A1	1A2
	1A3	1A4	2A1
	2A2	2A3	2A4
74AS763:	1Y1	1Y2	1Y3
	1Y4	2Y1	2Y2
	2Y3	2Y4	1G'
	2G	1A1	1A2
	1A3	1A4	2A1
	2A2	2A3	2A4
74AS800:	OUTY	OUTZ	INA
	INB	INC	IND
74AS802:	OUTY	OUTZ	INA
	INB	INC	IND
74AS804A:	OUTY	INA	INB
74AS805A:	OUTY	INA	INB
74AS808A:	OUTY	INA	INB
74AS821:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	0C'	CP
	1D	2D	3D
	4D	5D	6D
	7D	8D	9D
	10D		
74AS822:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	0C'	CP
	1D'	2D'	3D'
	4D'	5D'	6D'
	7D'	8D'	9D'
	10D'		
74AS823:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	0C'	CLR'	CPEN'
	CP	1D	2D
	3D	4D	5D
	6D	7D	8D
	9D		
74AS824:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	0C'	CLR'	CPEN'

	CP	1D'	2D'
	3D'	4D'	5D'
	6D'	7D'	8D'
	9D'		
74AS825:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1'
	OC2'	OC3'	CLR'
	CPEN'	CP	1D
	2D	3D	4D
	5D	6D	7D
	8D		
74AS826:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1'
	OC2'	OC3'	CLR'
	CPEN'	CP	1D'
	2D'	3D'	4D'
	5D'	6D'	7D'
	8D'		
74AS832A:	OUTY	INA	INB
74AS841:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	OC'	C
	1D	2D	3D
	4D	5D	6D
	7D	8D	9D
	10D		
74AS842:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	10Q	OC'	C
	1D'	2D'	3D'
	4D'	5D'	6D'
	7D'	8D'	9D'
	10D'		
74AS843:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	OC'	CLR'	PRE'
	C	1D	2D
	3D	4D	5D
	6D	7D	8D
	9D		

74AS844:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	9Q
	OC1'	PRE1'	CLR1'
	C	1D1'	2D1'
	3D1'	4D1'	5D1'
	6D1'	7D1'	8D1'
	9D1'		
74AS845:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1'
	OC21'	OC31'	PRE1'
	CLR1'	C	1D
	2D	3D	4D
	5D	6D	7D
	8D		
74AS846:	1Q	2Q	3Q
	4Q	5Q	6Q
	7Q	8Q	OC1'
	OC21'	OC31'	PRE1'
	CLR1'	C	1D1'
	2D1'	3D1'	4D1'
	5D1'	6D1'	7D1'
	8D1'		
74AS850:	Y	W	G1'
	GY1'	GW	CP
	S0	S1	S2
	S3	D0	D1
	D2	D3	D4
	D5	D6	D7
	D8	D9	D10
	D11	D12	D13
	D14	D15	
74AS851:	Y	W	G1'
	GY1'	GW	SC1'
	S0	S1	S2
	S3	D0	D1
	D2	D3	D4
	D5	D6	D7
	D8	D9	D10
	D11	D12	D13
	D14	D15	
74AS857:	Y	OPER	S0
	S1	COMP	A
	B		
74AS866:	P.GT.QO	P.LT.QO	P.EQ.Q
	L-A1'	PLE	P0
	P1	P2	P3
	P4	P5	P6

	P7	P.GT.QIN	P.LT.QIN
	OLE	CLRQ'	QLE
	QOE	Q1	Q2
	Q3	Q4	Q5
	Q6	Q7	
74AS867:	RCO'	QA	QB
	QC	QD	QE
	QF	QG	QH
	S0	S1	ENT'
	ENP'	CP	A
	B	C	D
	E	F	G
	H		
74AS869:	RCO'	QA	QB
	QC	QD	QE
	QF	QG	QH
	S0	S1	ENT'
	ENP'	CP	A
	B	C	D
	E	F	G
	H		
74AS870:	DQA1	DQA2	DQA3
	DQA4	DQB1	DQB2
	DQB3	DQB4	1A0
	1A1	1A2	1A3
	2A0	2A1	2A2
	2A3	S0	S1
	S2	S3	1W'
	2W'		
74AS870E:	DQA1	DQA2	DQA3
	DQA4	DQB1	DQB2
	DQB3	DQB4	1A0
	1A1	1A2	1A3
	2A0	2A1	2A2
	2A3	S0	S1
	S2	S3	1W'
	2W'		
74AS871:	QA1	QA2	QA3
	QA4	DQB1	DQB2
	DQB3	DQB4	1A0
	1A1	1A2	1A3
	2A0	2A1	2A2
	2A3	S0	S1
	S2	S3	1W'
	2W'	DA1	DA2
	DA3	DA4	
74AS871E:	QA1	QA2	QA3
	QA4	DQB1	DQB2
	DQB3	DQB4	1A0

	1A1	1A2	1A3
	2A0	2A1	2A2
	2A3	S0	S1
	S2	S3	1W ¹
	2W ¹	DA1	DA2
	DA3	DA4	
74AS873:	Q1	Q2	Q3
	Q4	OC ¹	C
	CLR ¹	D1	D2
	D3	D4	
74AS874:	Q1	Q2	Q3
	Q4	OC ¹	CP
	CLR ¹	D1	D2
	D3	D4	
74AS876:	Q1	Q2	Q3
	Q4	OC ¹	CP
	PR	D1	D2
	D3	D4	
74AS878:	Q1	Q2	Q3
	Q4	OC ¹	CP
	CLR ¹	D1	D2
	D3	D4	
74AS879:	Q1 ¹	Q2 ¹	Q3 ¹
	Q4 ¹	OC ¹	CP
	CLR ¹	D1	D2
	D3	D4	
74AS880:	Q1 ¹	Q2 ¹	Q3 ¹
	Q4 ¹	OC ¹	C
	PRE ¹	D1	D2
	D3	D4	
74AS881A:	P ¹	G ¹	A.EQ.B
	CN.PL.4	F0 ¹	F1 ¹
	F2 ¹	F3 ¹	S0
	S1	S2	S3
	M	CN	A0 ¹
	B0 ¹	A1 ¹	B1 ¹
	A2 ¹	B2 ¹	A3 ¹
	B3 ¹		
74AS882:	CN.PL.8	CN.PL.16	CN.PL.24
	CN.PL.32	CN	P0 ¹
	G0 ¹	P1 ¹	G1 ¹
	P2 ¹	G2 ¹	P3 ¹
	G3 ¹	P4 ¹	G4 ¹
	P5 ¹	G5 ¹	P6 ¹
	G6 ¹	P7 ¹	G7 ¹

74AS885:	P.GT.Q PLE P2 P5 IP.GT.Q Q1 Q4 Q7	P.LT.Q P0 P3 P6 IP.LT.Q Q2 Q5	L-A' P1 P4 P7 Q0 Q3 Q6
74LS00:	OUTY	INA	INB
74LS01:	OUTY	INA	INB
74LS02:	OUTY	INA	INB
74LS03:	OUTY	INA	INB
74LS04:	OUT	IN	
74LS05:	OUT	IN	
74LS08:	OUTY	INA	INB
74LS09:	OUTY	INA	INB
74LS10:	OUTY INC	INA	INB
74LS11:	OUTY INC	INA	INB
74LS12:	OUTY INC	INA	INB
74LS13:	OUTY INC	INA IND	INB
74LS14:	OUT	IN	
74LS15:	OUTY INC	INA	INB
74LS18:	OUTY INC	INA IND	INB
74LS19:	OUT	IN	
74LS20:	OUTY INC	INA IND	INB
74LS21:	OUTY INC	INA IND	INB
74LS22:	OUTY INC	INA IND	INB
74LS24:	OUTY	INA	INB
74LS26:	OUTY	INA	INB
74LS27:	OUTY INC	INA	INB
74LS28:	OUTY	INA	INB
74LS30:	OUTY INC INF	INA IND ING	INB INE INH
74LS32:	OUTY	INA	INB
74LS33:	OUTY	INA	INB
74LS37:	OUTY	INA	INB
74LS38:	OUTY	INA	INB

74LS40:	OUTY INC	INA IND	INB
74LS42:	0 3 6 9 C	1 4 7 A D	2 5 8 B
74LS47:	A D G A1 LT	B E RBO A2 RBI	C F A0 A3
74LS47E:	A D G A1 LT	B E RBO A2 RBI	C F A0 A3
74LS48:	A D G A1 LT	B E RBO A2 RBI	C F A0 A3
74LS48E:	A D G A1 LT	B E RBO A2 RBI	C F A0 A3
74LS49:	A D G A1	B E BI' A2	C F A0 A3
74LS51:	OUT1Y IN1B IN1E IN2B	OUT2Y IN1C IN1F IN2C	IN1A IN1D IN2A IN2D
74LS54:	OUTY INC INF INI	INA IND ING INJ	INB INE INH
74LS55:	Y C F	A D G	B E H
74LS56:	QA CLR	QB CPA	QC CPB
74LS57:	QA CLR	QB CPA	QC CPB

74LS68:	1QA 1QD 2QC 1CLR 2CP	1QB 2QA 2QD 1CPB	1QC 2QB 1CPA 2CLR
74LS69:	1QA 1QD 2QC 1CLR 2CP	1QB 2QA 2QD 1CPB	1QC 2QB 1CPA 2CLR
74LS73A:	Q J	Q' K	CP CLR
74LS73AE:	Q J	Q' K	CP CLR
74LS74A:	Q D	Q' PR	CP CLR
74LS74AE:	Q D	Q' PR	CP CLR
74LS75:	Q D	Q'	EN
74LS76A:	Q J CLR	Q' K	CP PR
74LS76AE:	Q J CLR	Q' K	CP PR
74LS78A:	Q J CLR	Q' K	CP PR
74LS83A:	S1 S4 A2 B1 B4	S2 COUT A3 B2 CIN	S3 A1 A4 B3
74LS85:	A.LT.B A0 A3 IA.GT.B B2	A.EQ.B A1 IA.LT.B B0 B3	A.GT.B A2 IA.EQ.B B1
74LS86:	OUTY	INA	INB
74LS90:	QA QD R9-1 CPB	QB R0-1 R9-2	QC R0-2 CPA
74LS91:	QH A	QH' B	CP
74LS92:	QA QD CPA	QB R0-1 CPB	QC R0-2

74LS93:	QA QD CPA	QB R0-1 CPB	QC R0-2
74LS95B:	QA QD CP2 B	QB MODE SER C	QC CP1 A D
74LS96:	QA QD PE A D	QB QE CLR B E	QC CP SERIN C
74LS107A:	Q J	Q' K	CP CLR
74LS107E:	Q J	Q' K	CP CLR
74LS109A:	Q J CLR	Q' K'	CP PR
74LS109E:	Q J CLR	Q' K'	CP PR
74LS112A:	Q J CLR	Q' K	CP PR
74LS112E:	Q J CLR	Q' K	CP PR
74LS113A:	Q J	Q' K	CP PR
74LS113E:	Q J	Q' K	CP PR
74LS114A:	Q J CLR	Q' K	CP PR
74LS114E:	Q J CLR	Q' K	WCP PR
74LS122:	Q A2' CLR RX-CX	Q' B1 RINT	A1' B2 CEXT
74LS123:	Q B REXT	Q' CLR	A' CEXT
74LS125A:	OUTY	DISABL	INA
74LS126A:	OUT	EN'	IN
74LS132:	OUTY	INA	INB
74LS136:	OUTY	INA	INB

74LS137:	Y0 Y3 Y6 A G1	Y1 Y4 Y7 B G2'	Y2 Y5 GL' C
74LS138:	Y0 Y3 Y6 B G2A'	Y1 Y4 Y7 C G2B'	Y2 Y5 A G1
74LS139:	Y0 Y3 G'	Y1 A	Y2 B
74LS145:	0 3 6 9 C	1 4 7 A D	2 5 8 B
74LS147:	A D IN3 IN6 IN9	B IN1 IN4 IN7	C IN2 IN5 IN8
74LS148:	EO A1 1 4 7	GS A2 2 5 EI	A0 0 3 6
74LS151:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74LS153:	Y STRB C2	SELA C0 C3	SELB C1
74LS155A:	1Y0 1Y3 2Y2 SELB STRB2	1Y1 2Y0 2Y3 STRB1 DATA2	1Y2 2Y1 SELA DATA1
74LS156:	1Y0 1Y3 2Y2 SELB STRB2	1Y1 2Y0 2Y3 STRB1 DATA2	1Y2 2Y1 SELA DATA1

74LS157:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74LS158:	Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74LS160A:	RCO QC LD CP C	QA QD ENT A D	QB CLR ENP B
74LS161A:	RCO QC LD CP C	QA QD ENT A D	QB CLR ENP B
74LS162A:	RCO QC LD CP C	QA QD ENT A D	QB CLR ENP B
74LS163A:	RCO QC LD CP C	QA QD ENT A D	QB CLR ENP B
74LS164:	QA QD QG CP	QB QE QH A	QC QF CLR B
74LS165:	QH CP-INH A D G	QH' CP B E H	SHFT-LD SERIN C F
74LS166A:	QH CP-INH A D G	CLR CP B E H	SHFT-LD SERIN C F
74LS169B:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B

74LS170:	Q0 Q3 RSELA ENR D2	Q1 WSELA RSELB D0 D3	Q2 WSELB ENW D1
74LS171:	Q CP	Q' D	CLR
74LS173A:	1Q 4Q N CP 3D	2Q CLR G1' 1D 4D	3Q M G2' 2D
74LS174:	Q D	CLR'	CP
74LS175:	Q CP	Q' D	CLR'
74LS181:	P' CN.PL.4 F2' S1 M B0' A2' B3'	G' F0' F3' S2 CN A1' B2'	A.EQ.B F1' S0 S3 A0' B1' A3'
74LS183:	SUM B	COU CIN	A
74LS190:	MAX-MIN QB CTEN' LOAD' C	RCO' QC D-U' A D	QA QD CP B
74LS191:	MAX-MIN QB CTEN' LOAD' C	RCO' QC D-U' A D	QA QD CP B
74LS192:	CO' QB CLR LOAD' C	BO' QC CPU A D	QA QD CPD B
74LS193:	CO' QB CLR LOAD' C	BO' QC CPU A D	QA QD CPD B

74LS194A:	QA QD S1 A D	QB CLR' CP B SL	QC S0 SR C
74LS195A:	QA QD SHFT-LD' K' C	QB QD' CP A D	QC CLR' J B
74LS196:	QA QD CP1 B	QB CNT-LD A C	QC CLR CP2 D
74LS197:	QA QD CP1 B	QB CNT-LD A C	QC CLR CP2 D
74LS221:	Q B REXT	Q' CLR	A CEXT
74LS240:	1Y1 1Y4 2Y3 2G' 1A3 2A2	1Y2 2Y1 2Y4 1A1 1A4 2A3	1Y3 2Y2 1G' 1A2 2A1 2A4
74LS241:	1Y1 1Y4 2Y3 1A2 2A1 2A4	1Y2 2Y1 2Y4 1A3 2A2 G'	1Y3 2Y2 1A1 1A4 2A3 G
74LS242:	B1 B4 A1 A4	B2 GBA A2	B3 G'AB A3
74LS243:	B1 B4 A1 A4	B2 GBA A2	B3 G'AB A3
74LS244:	1Y1 1Y4 2Y3 2G' 1A3 2A2	1Y2 2Y1 2Y4 1A1 1A4 2A3	1Y3 2Y2 1G' 1A2 2A1 2A4

74LS245:	B1 B4 B7 DIR A3 A6	B2 B5 B8 A1 A4 A7	B3 B6 G' A2 A5 A8
74LS247:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
74LS248:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
74LS249:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
74LS251:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74LS253:	Y OCNTRL C2	SELA C0 C3	SELB C1
74LS257B:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74LS258B:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74LS259:	Q0 Q3 Q6 S1 D	Q1 Q4 Q7 S2 CLR'	Q2 Q5 S0 G'
74LS261:	Q0 Q3 B2 M0 Q4'	Q1 B0 B3 M1 G	Q2 B1 B4 M2

74LS266:	OUTY	INA	INB
74LS273:	Q	CLR	CP
	D		
74LS279A:	QA	QB	RA'
	S1A'	S2A'	RB'
	SB'		
74LS280:	SUM-E	SUM-OD	A
	B	C	D
	E	F	G
	H	I	
74LS283:	S1	S2	S3
	S4	COUT	A1
	A2	A3	A4
	B1	B2	B3
	B4	CIN	
74LS290:	QA	QB	QC
	QD	R01	R02
	R91	R92	A
	B		
74LS292:	TP1	TP2	TP3
	Q	CLR'	CP1
	CP2	A	B
	C	D	E
74LS293:	QA	QB	QC
	QD	R01	R02
	A	B	
74LS294:	TP	Q	CLR'
	CP1	CP2	A
	B	C	D
74LS295B:	QA	QB	QC
	QD	OC	LD-SH'
	CP	SER	A
	B	C	D
74LS298:	QA	QB	QC
	QD	WS	CP
	A1	A2	B1
	B2	C1	C2
	D1	D2	
74LS299:	PQA	PQH	A-QA
	B-QB	C-QC	D-QD
	E-QE	F-QF	G-QG
	H-QH	CLR'	G1'
	G2'	S0	S1
	CP	SR	SL
74LS321:	F	F'	FP
	FP'	F-2	F-4
	FFQ	TANK1	TANK2
	XTAL1	XTAL2	FFD

74LS322A:	PQH	A-QA	B-QB
	C-QC	D-QD	E-QE
	F-QF	G-QG	H-QH
	CLR'	OE'	G'
	S-P	CLK	SE'
	DS	DO	D1
74LS323:	PQA	PQH	A-QA
	B-QB	C-QC	D-QD
	E-QE	F-QF	G-QG
	H-QH	CLR'	G1'
	G2	S0	S1
	CP	SR	SL
74LS347:	YA	YB	YC
	YD	YE	YF
	YG	BI-RBO'	RBI'
	LT'	A	B
	C	D	
74LS348:	EO	GS	AO
	A1	A2	INO
	IN1	IN2	IN3
	IN4	IN5	IN6
	IN7	EI	
		A	B
74LS352:	Y	C0	C1
	G1'	C3	
	C2		
74LS353:	Y	A	B
	G1'	C0	C1
	C2	C3	
74LS354:	Y	W	G1'
	G2'	G3	SC1'
	S0	S1	S2
	DC1'	D0	D1
	D2	D3	D4
	D5	D6	D7
		W	G1'
		G3	SC1'
74LS355:	S0	S1	S2
	DC1'	D0	D1
	D2	D3	D4
	D5	D6	D7
		W	G1'
		G3	SC1'
		S1	S2
		D0	D1
74LS356:	D2	D3	D4
	D5	D6	D7
	Y	W	G1'
	G2'	G3	SC1'
	S0	S1	S2
	CP	DO	D1

74LS357:	Y	W	G1'
	G2'	G3	SC'
	S0	S1	S2
	CP	D0	D1
	D2	D3	D4
	D5	D6	D7
74LS363:	Q	OCNTRL'	ENG
	D		
74LS364:	Q	OCNTRL'	CP
	D		
74LS365A:	OUT	IN	G1'
	G2'		
74LS366A:	OUT	IN	G1'
	G2'		
74LS367A:	Y1	Y2	Y3
	Y4	Y5	Y6
	G1'	G2'	A1
	A2	A3	A4
	A5	A6	
74LS368A:	Y1	Y2	Y3
	Y4	Y5	Y6
	G1'	A1	A2
	A3	A4	G2'
	A5	A6	
74LS373:	Q	OCNTRL'	ENG
	D		
74LS374:	Q	OCNTRL'	CP
	D		
74LS375:	Q	Q'	D
	EN		
74LS377:	Q	EN	CP
	D		
74LS378:	Q	EN	CP
	D		
74LS379:	Q	Q'	G'
	CP	D	
74LS381:	P'	G'	F0
	F1	F2	F3
	S0	S1	S2
	CN	A0	B0
	A1	B1	A2
	B2	A3	B3
74LS382:	F0	F1	F2
	OVR	CN4	F3
	S0	S1	S2
	CN	A0	B0
	A1	B1	A2
	B2	A3	B3

74LS384:	PROD	CLR'	MODE
	CP	X0	X1
	X2	X3	X4
	X5	X6	X7
	Y	K	
74LS385:	S	CLR'	CP
	S-A'	A	B
74LS386:	OUTY	INA	INB
74LS390:	QA	QB	QC
	QD	CLR	A
	B		
74LS393:	QA	QB	QC
	QD	CLR	A
74LS395A:	QA	QB	QC
	QD	QD'	CLR'
	OC'	LD-SH'	CP
	SER	A	B
	C	D	
74LS396:	1Q1	2Q1	1Q2
	2Q2	1Q3	2Q3
	1Q4	2Q4	EN
	CP	D1	D2
	D3	D4	
74LS398:	QA	QA'	QB
	QB'	QC	QC'
	QD	QD'	WS
	CP	A1	A2
	B1	B2	C1
	C2	D1	D2
74LS399:	QA	QB	QC
	QD	WS	CP
	A1	A2	B1
	B2	C1	C2
	D1	D2	
74LS422:	Q	Q'	A1
	A2	B1	B2
	CLR'	RINT	CEXT
	REXT		
74LS422E:	Q	Q'	A1
	CLR'	RINT	CEXT
	REXT		
74LS423:	Q	Q'	A
	B	CLR'	CEXT
	REXT		
74LS440:	A	B	C
	S0	S1	CS'
74LS440E:	A	B	C
	S0	S1	CS'
	GA'	GB'	GC'
	GA'	GB'	GC'

74LS441:	A S0 GA'	B S1 GB'	C CS' GC'
74LS441E:	A S0 GA'	B S1 GB'	C CS' GC'
74LS442:	A S0 GA'	B S1 GB'	C CS' GC'
74LS442E:	A S0 GA'	B S1 GB'	C CS' GC'
74LS443:	A S0 GA'	B S1 GB'	C CS' GC'
74LS443E:	A S0 GA'	B S1 GB'	C CS' GC'
74LS444:	A S0 GA'	B S1 GB'	C CS' GC'
74LS444E:	A S0 GA'	B S1 GB'	C CS' GC'
74LS445:	0 3 6 9 C	1 4 7 A D	2 5 8 B
74LS446:	B GAB'	A DIR	GBA'
74LS447:	A D G INC RBI	B E INA IND LMPTST	C F INB RBO
74LS448:	A S0 GA'	B S1 GB'	C CS' GC'
74LS448E:	A S0 GA'	B S1 GB'	C CS' GC'
74LS449:	B GAB'	A DIR	GBA'
74LS465:	Y A	G1'	G2'
74LS466:	Y A	G1'	G2'
74LS467:	Y	G'	A

74LS468:	Y	G ¹	A
74LS490:	QA	QB	QC
	QD	CLR	SET9
	CP		
74LS540:	Y	G ¹	G ²
	A		
74LS541:	Y	G ¹	G ²
	A		
74LS590:	RCO ¹	QA	QB
	QC	QD	QE
	QF	QG	QH
	G ¹	RCK	CCKEN ¹
	CCK	CCLR ¹	
74LS590E:	RCO ¹	QA	QB
	QC	QD	QE
	QF	QG	QH
	G ¹	RCK	CCKEN ¹
	CCK	CCLR ¹	
74LS591:	RCO ¹	QA	QB
	QC	QD	QE
	QF	QG	QH
	G ¹	RCK	CCKEN ¹
	CCK	CCLR ¹	
74LS591E:	RCO ¹	QA	QB
	QC	QD	QE
	QF	QG	QH
	G ¹	RCK	CCKEN ¹
	CCK	CCLR ¹	
74LS592:	RCO ¹	CCLR ¹	CCKEN ¹
	CCK	CLOAD ¹	RCK
	A	B	C
	D	E	F
	G	H	
74LS593:	RCO ¹	A-QA	B-QB
	C-QC	D-QD	E-QE
	F-QF	G-QG	H-QH
	G	G ¹	CCLR ¹
	CCKEN	CCKEN ¹	CCK
	CLOAD ¹	RCKEN ¹	RCK
74LS594:	QA	QB	QC
	QD	QE	QF
	QG	QH	PQH
	RCLR ¹	RCK	SRCLR ¹
	SRCK	SER	
74LS595:	QA	QB	QC
	QD	QE	QF
	QG	QH	PQH
	G ¹	RCK	SRCLR ¹
	SRCK	SER	

74LS596:	QA QD QG G' SRCK	QB QE QH RCK SER	QC QF PQH SRCLR'
74LS597:	PQH SRLOAD' A D G	SRCLR' RCK B E H	SRCK SER C F
74LS598:	PQH C-QC F-QF G' SRCK DS	A-QA D-QD G-QG SRCLR' SRLOAD' SERO	B-QB E-QE H-QH SCKEN' RCK SER1
74LS599:	QA QD QG RCLR' SRCK	QB QE QH RCK SER	QC QF PQH SRCLR'
74LS600A:	RAS' A1 A4 HOLD' RAS-LO' 4K-16K'	BUSY' A2 A5 LAT.RCO REQ1 BURST	A0 A3 A6 RAS-HI' REQ2 RES.CO
74LS602A:	RAS' A1 A4 HOLD' RC-LO' 4K-16K'	BUSY' A2 A5 READY' REQ1 BURST	A0 A3 A6 RC-HI' REQ2 C.STEAL
74LS603A:	RAS' A1 A4 A7 RAS-HI' REQ2	BUSY' A2 A5 HOLD' RAS-LO' BURST	A0 A3 A6 READY' REQ1 C.STEAL
74LS604:	Y1 Y4 Y7 CP A2 B3 A5 B6 A8	Y2 Y5 Y8 A1 B2 A4 B5 A7 B8	Y3 Y6 A-B' B1 A3 B4 A6 B7

74LS605:	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	A-B'
	CP	A1	B1
	A2	B2	A3
	B3	A4	B4
	A5	B5	A6
	B6	A7	B7
	A8	B8	
74LS606:	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	A-B'
	CP	A1	B1
	A2	B2	A3
	B3	A4	B4
	A5	B5	A6
	B6	A7	B7
	A8	B8	
74LS607:	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	A-B'
	CP	A1	B1
	A2	B2	A3
	B3	A4	B4
	A5	B5	A6
	B6	A7	B7
	A8	B8	
74LS608:	R-C'	RAS'	CAS'
	R-W'	P-N'	START
	RASEN'	CASH'	REFRESH
	RMW'	R-W'	RCRAH
	PRECH	RCCASLO'	
74LS610:	MO0	MO1	MO2
	MO3	MO4	MO5
	MO6	MO7	MO8
	MO9	MO10	MO11
	D0	D1	D2
	D3	D4	D5
	D6	CS'	MA0
	MA1	MA2	MA3
	RS0	RS1	RS2
	RS3	STB'	R-W
	MM'	C	ME'
	D7	D8	D9
	D10	D11	
74LS611:	MO0	MO1	MO2
	MO3	MO4	MO5
	MO6	MO7	MO8
	MO9	MO10	MO11
	D0	D1	D2

	D3	D4	D5
	D6	CS'	MA0
	MA1	MA2	MA3
	RS0	RS1	RS2
	RS3	STB'	RW
	MM'	C	ME'
	D7	D8	D9
	D10	D11	
74LS612:	M00	M01	M02
	M03	M04	M05
	M06	M07	M08
	M09	M010	M011
	D0	D1	D2
	D3	D4	D5
	D6	CS'	MA0
	MA1	MA2	MA3
	RS0	RS1	RS2
	RS3	STB'	RW
	MM'	ME'	D7
	D8	D9	D10
	D11		
74LS613:	M00	M01	M02
	M03	M04	M05
	M06	M07	M08
	M09	M010	M011
	D0	D1	D2
	D3	D4	D5
	D6	CS'	MA0
	MA1	MA2	MA3
	RS0	RS1	RS2
	RS3	STB'	RW
	MM'	ME'	D7
	D8	D9	D10
	D11		
74LS621:	B	GBA'	GAB
	A		
74LS622:	B	GBA'	GAB
	A		
74LS623:	B	GBA'	GAB
	A		
74LS624:	Y	Z	EN'
	RNG	FC	CX1
	CX2	OSCVCC	OSCGND
74LS625:	Y	Z	OSCVCC
	OSCGND	FC	CX1
	CX2		
74LS626:	Y	Z	EN'
	FC	CX1	CX2
	OSCVCC	OSCGND	

74LS627:	Y	OSCVCC	OSCGND
	FC	CX1	CX2
74LS628:	Y	Z	EN'
	RNG	FC	CX1
	CX2	RX1	RX2
	OSCVCC	OSCGND	
74LS629:	Y	EN'	RNG
	FC	CX1	CX2
	OSCVCC	OSCGND	
74LS630:	SEF	DEF	CB0
	CB1	CB2	CB3
	CB4	CB5	DB0
	DB1	DB2	DB3
	DB4	DB5	DB6
	DB7	DB8	DB9
	DB10	DB11	DB12
	DB13	DB14	DB15
	S0	S1	
74LS631:	SEF	DEF	CB0
	CB1	CB2	CB3
	CB4	CB5	DB0
	DB1	DB2	DB3
	DB4	DB5	DB6
	DB7	DB8	DB9
	DB10	DB11	DB12
	DB13	DB14	DB15
	S0	S1	
74LS636:	SEF	DEF	CB0
	CB1	CB2	CB3
	CB4	DB0	DB1
	DB2	DB3	DB4
	DB5	DB6	DB7
	S0	S1	
74LS637:	SEF	DEF	CB0
	CB1	CB2	CB3
	CB4	DB0	DB1
	DB2	DB3	DB4
	DB5	DB6	DB7
	S0	S1	
74LS638:	B	G'	DIR
	A		
74LS639:	B	G'	DIR
	A		
74LS640:	B	G'	DIR
	A		
74LS641:	B	G'	DIR
	A		
74LS642:	B	G'	DIR
	A		

74LS643:	B	G'	DIR
	A		
74LS644:	B	G'	DIR
	A		
74LS645:	B	G'	DIR
	A		
74LS646:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74LS647:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74LS648:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74LS649:	B	G'	DIR
	CBA	SBA	CAB
	SAB	A	
74LS651:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74LS652:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74LS653:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74LS654:	B	GBA'	GAB
	CBA	SBA	CAB
	SAB	A	
74LS668:	RCO'	QA	QB
	QC	QD	LOAD'
	U-D'	ENT'	ENP'
	CP	A	B
	C	D	
74LS669:	RCO'	QA	QB
	QC	QD	LOAD'
	U-D'	ENT'	ENP'
	CP	A	B
	C	D	
74LS670:	Q1	Q2	Q3
	Q4	WA	WB
	RA	RB	GW'
	GR'	D1	D2
	D3	D4	

74LS671:	CASC	QA	QB
	QC	QD	G'
	R-S'	RCP	SRCLR'
	S0	S1	SRCP
	SERR	A	B
	C	D	SERL
74LS672:	CASC	QA	QB
	QC	QD	G'
	R-S'	RCP	SRCLR'
	S0	S1	SRCP
	SERR	A	B
	C	D	SERL
74LS673:	SER-Q15	Y0	
	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	Y9
	Y10	Y11	Y12
	Y13	Y14	Y15
	STRCLR'	STRCLK	R-W
	CS'	SHCLK'	
74LS674:	SER-Q15	MODE	R-W
	CS'	CP	P0
	P1	P2	P3
	P4	P5	P6
	P7	P8	P9
	P10	P11	P12
	P13	P14	P15
74LS681:	P'	G'	CN4
	I-00	I-01	I-02
	I-03	AS0	AS1
	AS2	M	CN
	RS0	RS1	RS2
	CP	RI-LO	LI-RO
74LS681E:	P'	G'	CN4
	I-00	I-01	I-02
	I-03	AS0	AS1
	AS2	M	CN
	RS0	RS1	RS2
	CP	RI-LO	LI-RO
74LS682:	PEQQ'	PGRQ'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7

74LS683:	PEQQ'	PGRQ'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74LS684:	PEQQ'	PGRQ'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74LS685:	PEQQ'	PGRQ'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74LS686:	P.EQ.Q'	P.GT.Q'	G1'
	G2'	P0	P1
	P2	P3	P4
	P5	P6	P7
	Q0	Q1	Q2
	Q3	Q4	Q5
	Q6	Q7	
74LS687:	P.EQ.Q'	P.GT.Q'	G1'
	G2'	P0	P1
	P2	P3	P4
	P5	P6	P7
	Q0	Q1	Q2
	Q3	Q4	Q5
	Q6	Q7	
74LS688:	P.EQ.Q'	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74LS689:	P.EQ.Q'	G'	P0
	P1	P2	P3
	P4	P5	P6
	P7	Q0	Q1
	Q2	Q3	Q4
	Q5	Q6	Q7
74LS690:	RCO	QA	QB
	QC	QD	G'
	R-C'	RCLR'	RCP
	CCLR'	LOAD'	ENT
	ENP	CCP	A
	B	C	D

74LS691:	RCO	QA	QB
	QC	QD	G'
	R-C'	RCLR'	RCP
	CCLR'	LOAD'	ENT
	ENP	CCP	A
	B	C	D
74LS692:	RCO	QA	QB
	QC	QD	G'
	R-C'	RCLR'	RCP
	CCLR'	LOAD'	ENT
	ENP	CCP	A
	B	C	D
74LS693:	RCO	QA	QB
	QC	QD	G'
	R-C'	RCLR'	RCP
	CCLR'	LOAD'	ENT
	ENP	CCP	A
	B	C	D
74LS696:	RCO'	QA	QB
	QC	QD	G'
	R-C'	RCP	CCLR'
	LOAD'	U-D'	ENT'
	ENP'	CCP	A
	B	C	D
74LS697:	RCO'	QA	QB
	QC	QD	G'
	R-C'	RCP	CCLR'
	LOAD'	U-D'	ENT'
	ENP'	CCP	A
	B	C	D
74LS698:	RCO'	QA	QB
	QC	QD	G'
	R-C'	RCP	CCLR'
	LOAD'	U-D'	ENT'
	ENP'	CCP	A
	B	C	D
74LS699:	RCO'	QA	QB
	QC	QD	G'
	R-C'	RCP	CCLR'
	LOAD'	U-D'	ENT'
	ENP'	CCP	A
	B	C	D
74S00:	OUTY	INA	INB
74S02:	OUTY	INA	INB
74S03:	OUTY	INA	INB
74S04:	OUT	IN	
74S05:	OUT	IN	
74S08:	OUTY	INA	INB

74S09:	OUTY	INA	INB
74S10:	OUTY	INA	INB
	INC		
74S11:	OUTY	INA	INB
	INC		
74S15:	OUTY	INA	INB
	INC		
74S20:	OUTY	INA	INB
	INC	IND	
74S22:	OUTY	INA	INB
	INC	IND	
74S30:	OUTY	INA	INB
	INC	IND	INE
	INF	ING	INH
74S32:	OUTY	INA	INB
74S37:	OUTY	INA	INB
74S38:	OUTY	INA	INB
74S40:	OUTY	INA	INB
	INC	IND	
74S51:	OUTY	INA	INB
	INC	IND	
74S64:	OUTY	INA	INB
	INC	IND	INE
	INF	ING	INH
	INI	INJ	INK
74S65:	OUTY	INA	INB
	INC	IND	INE
	INF	ING	INH
	INI	INJ	INK
74S74:	Q	Q'	CP
	D	PR	CLR
74S74E:	Q	Q'	CP
	D	PR	CLR
74S85:	A.LT.B	A.EQ.B	A.GT.B
	A0	A1	A2
	A3	IA.LT.B	IA.EQ.B
	IA.GT.B	B0	B1
	B2	B3	
74S86:	OUTY	INA	INB
74S112:	Q	Q'	CP
	J	K	PR
	CLR		
74S112E:	Q	Q'	CP
	J	K	PR
	CLR		
74S113:	Q	Q'	CP
	J	K	PR
74S113E:	Q	Q'	CP
	J	K	PR

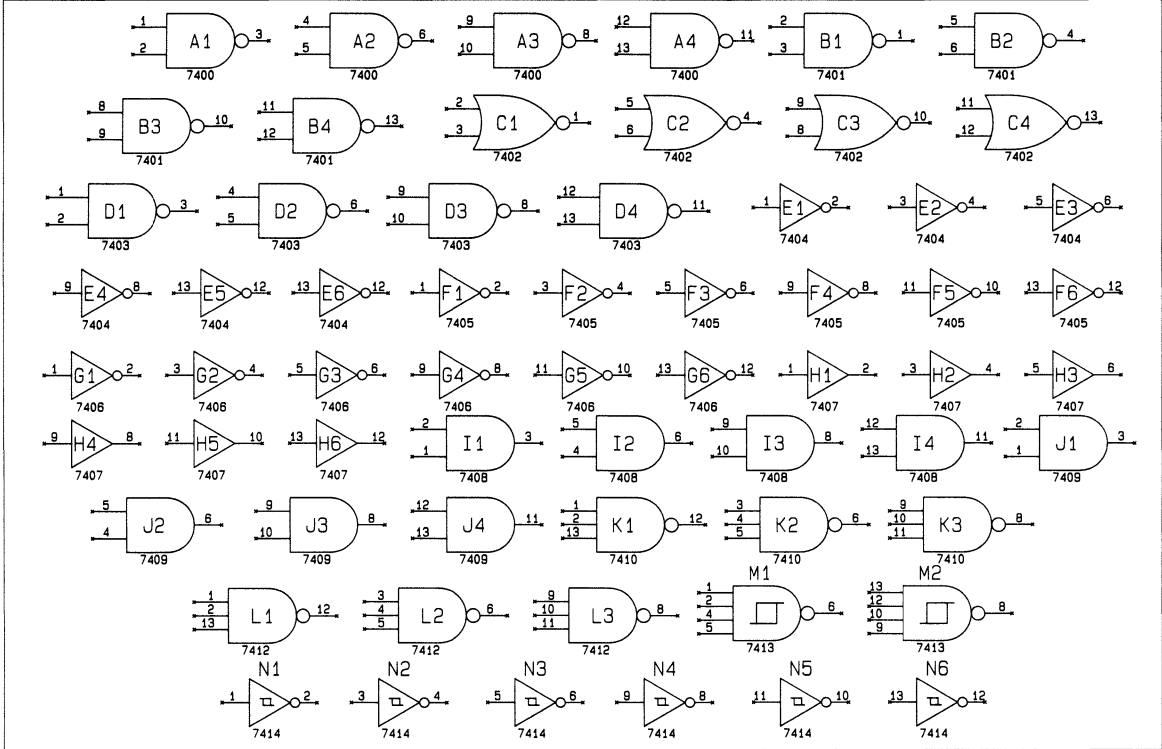
74S114:	Q	Q'	CP
	J	K	PR
	CLR		
74S114E:	Q	Q'	CP
	J	K	PR
	CLR		
74S124:	Y	EN'	RNG
	FC	CX1	CX2
	OSCVCC	OSCGND	
74S132:	OUTY	INA	INB
74S133:	OUTY	A	B
	C	D	E
	F	G	H
	I	J	K
	L	M	
74S134:	OUTY	CONTROL	A
	B	C	D
	E	F	G
	H	I	J
	K	L	
74S135:	Y	C	A
	B		
74S138:	Y0	Y1	Y2
	Y3	Y4	Y5
	Y6	Y7	A
	B	C	G2A
	G2B	G1	
74S139:	Y0	Y1	Y2
	Y3	A	B
	G'		
74S140:	OUTY	INA	INB
	INC	IND	
74S151:	Y	W	STRB
	SELA	SELB	SELC
	D0	D1	D2
	D3	D4	D5
	D6	D7	
74S153	Y	SELA	SELB
	STRB	C0	C1
	C2	C3	
74S157:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	
74S158:	1Y	2Y	3Y
	4Y	G'	A-B
	1A	1B	2A
	2B	3A	3B
	4A	4B	

74S162:	RCO QC LD CP C	QA QD ENT A D	QB CLR ENP B
74S163:	RCO QC LD CP C	QA QD ENT A D	QB CLR ENP B
74S168:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B
74S169:	RCO' QC U-D' CP C	QA QD ENT' A D	QB LOAD' ENP' B
74S174:	Q D	CLR'	CP
74S175:	Q CP	Q' D	CLR'
74S181:	P' CN.PL.4 F2' S1 M B0' A2' B3'	G' F0' F3' S2 CN A1' B2'	A.EQ.B F1' S0 S3 A0' B1' A3'
74S182:	CO0 P' P0' G1' P3'	CO1 G' G0' P2' G3'	CO2 CN P1' G2'
74S194:	QA QD S1 A D	QB CLR' CP B SL	QC S0 SR C
74S195:	QA QD CLR' K' C	QB QD' CP A D	QC SHFT-LD' J B

74S196:	QA QD CP1 B	QB CNT-LD A C	QC CLR CP2 D
74S197	QA QD CP1 B	QB CNT-LD A C	QC CLR CP2 D
74S226:	B1 B4 GAB OCBA A3	B2 S1 GBA A1 A4	B3 S2 OCAB A2
74S226E:	B1 B4 GAB OCBA A3	B2 S1 GBA A1 A4	B3 S2 OCAB A2
74S240:	Y	G'	A
74S241:	1Y1 1Y4 2Y3 1A2 2A1 2A4	1Y2 2Y1 2Y4 1A3 2A2 G'	1Y3 2Y2 1A1 1A4 2A3 G
74S244:	Y	G'	A
74S251:	Y SELA D0 D3 D6	W SELB D1 D4 D7	STRB SELC D2 D5
74S253:	Y OCNTRL C2	SELA C0 C3	SELB C1
74S257:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74S258:	1Y 4Y 1A 2B 4A	2Y G' 1B 3A 4B	3Y A-B 2A 3B
74S260:	OUTY INC	INA IND	INB INE
74S268:	Q D	OC'	C

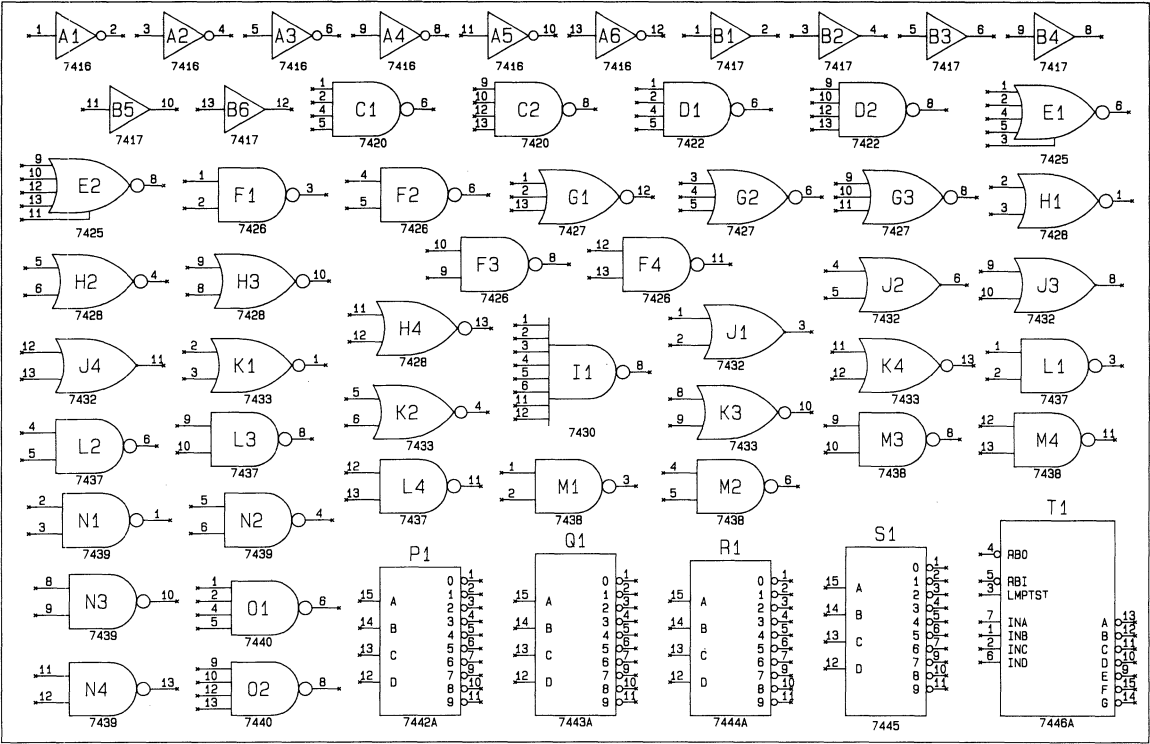
74S274:	2-N 2-N3 2-N6 A2-N1 B2-N B2-N3	2-N1 2-N4 2-N7 A2-N2 B2-N1 EN-G1'	2-N2 2-N5 A2-N A2-N3 B2-N2 EN-G2'
74S280:	SE B E H	SO C F I	A D G
74S281:	P' F0 F3 AS2 RS0 CP A1 A3	G' F1 AS0 M RS1 A0 A2	CN4 F2 AS1 CN RC RI-LO LI-RO
74S281E:	P' F0 F3 AS2 RS0 CP A1 A3	G' F1 AS0 M RS1 A0 A2	CN4 F2 AS1 CN RC RI-LO LI-RO
74S283:	S1 S4 A2 B1 B4	S2 COUT A3 B2 CIN	S3 A1 A4 B3
74S299:	PQA B-QB E-QE H-QH G2'	PQH C-QC F-QF CLR' S0 SR	A-QA D-QD G-QG G1' S1 SL
74S350:	Y3 Y0 S1 D1 D-2	Y2 OE' D3 D0 D-3	Y1 S0 D2 D-1
74S373:	Q D	O-CONT'	C
74S374:	D	O-CONT'	CP
74S381:	P' F1 S0	G' F2 S1	F0 F3 S2

	CN	A0	B0
	A1	B1	A2
	B2	A3	B3
74S428:	I-OW'	MEMW'	I-OR'
	MEMR'	INTA'	DB0
	DB1	DB2	DB3
	DB4	DB5	DB6
	DB7	D0	D1
	D2	D3	D4
	D5	D6	D7
	WR'	HLDA	DBIN
	STSTB'	BUSEN'	
74S436:	Y	G1'	G2'
	A		
74S437:	Y	G1'	G2'
	A		
74S484A:	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	G1'
	G2'	A	B
	C	D	E
	F	G	H
74S485A:	Y1	Y2	Y3
	Y4	Y5	Y6
	Y7	Y8	G1'
	G2'	A	B
	C	D	E
	F	G	H

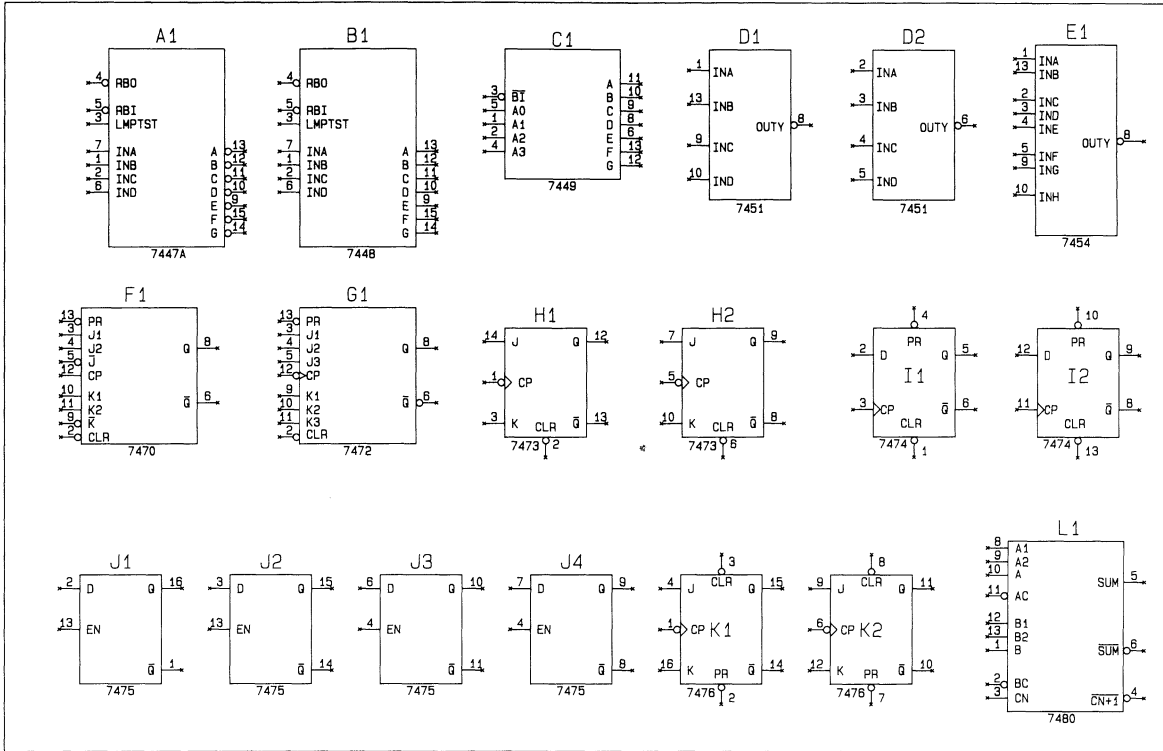


STANDARD COMPONENT SYMBOL PLOTS

PLOT 1

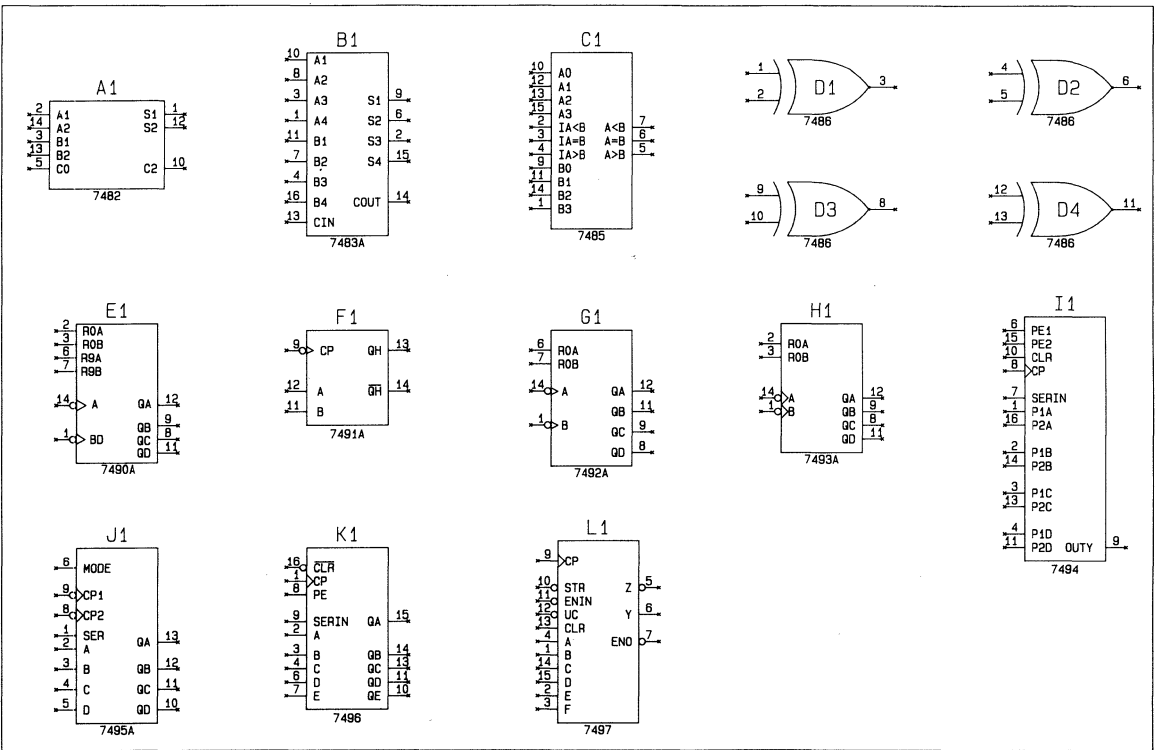


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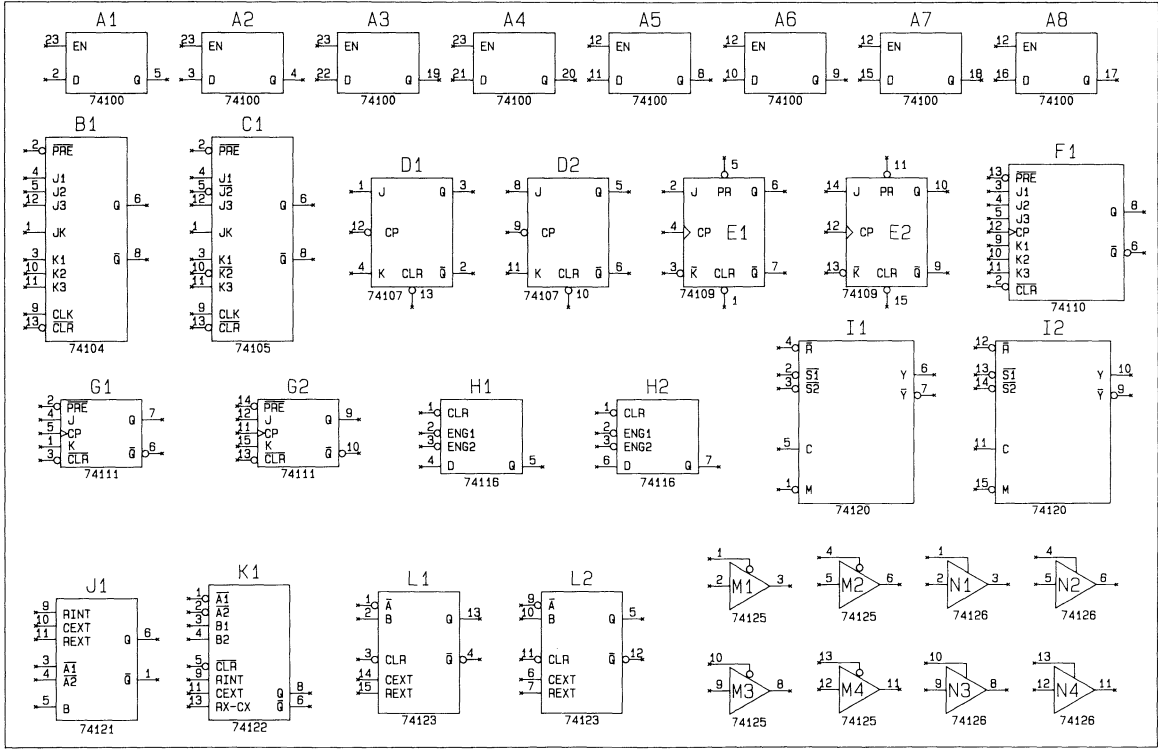


STANDARD COMPONENT SYMBOL PLOTS

PLOT 4



000-0065-03

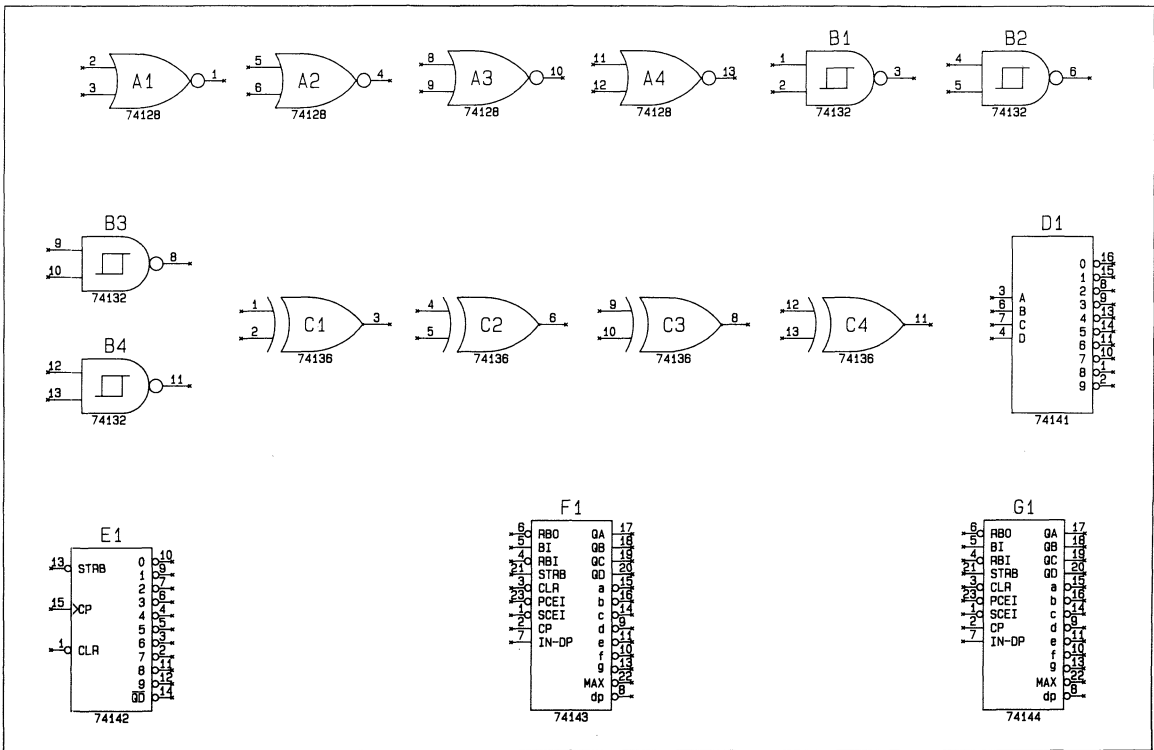


STANDARD COMPONENT SYMBOL PLOTS

Schematic Symbols 139

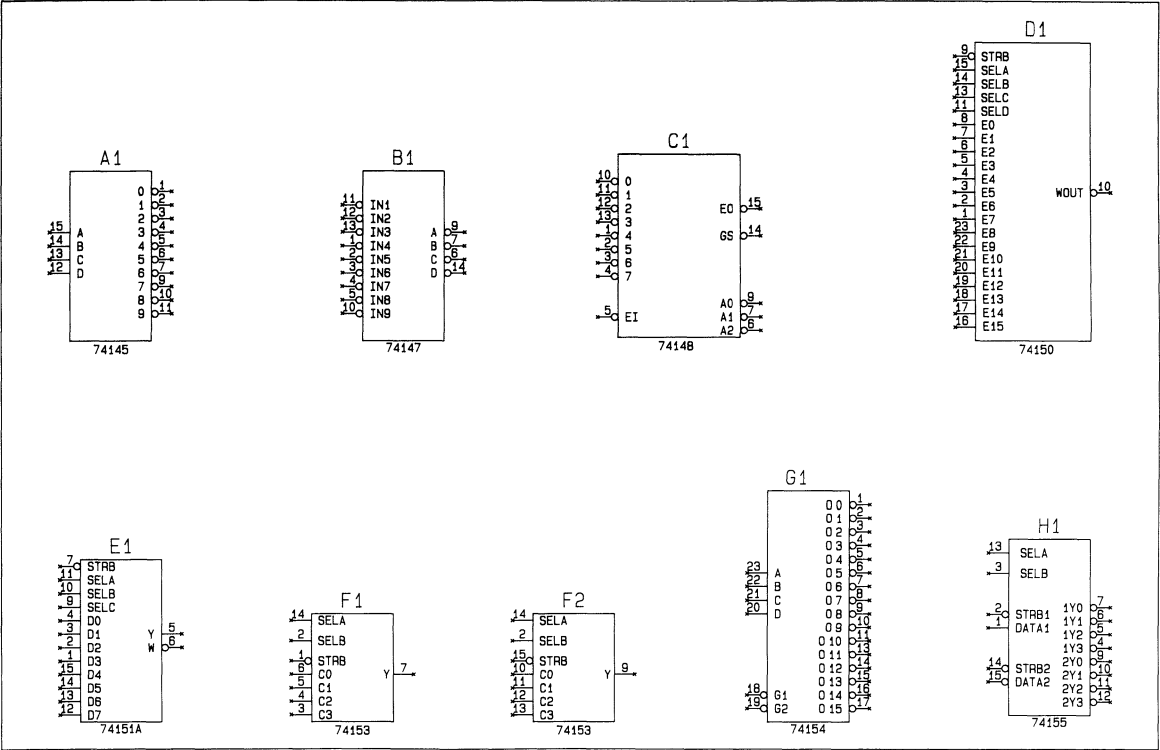
PLOT 5

STANDARD COMPONENT SYMBOL PLOTS



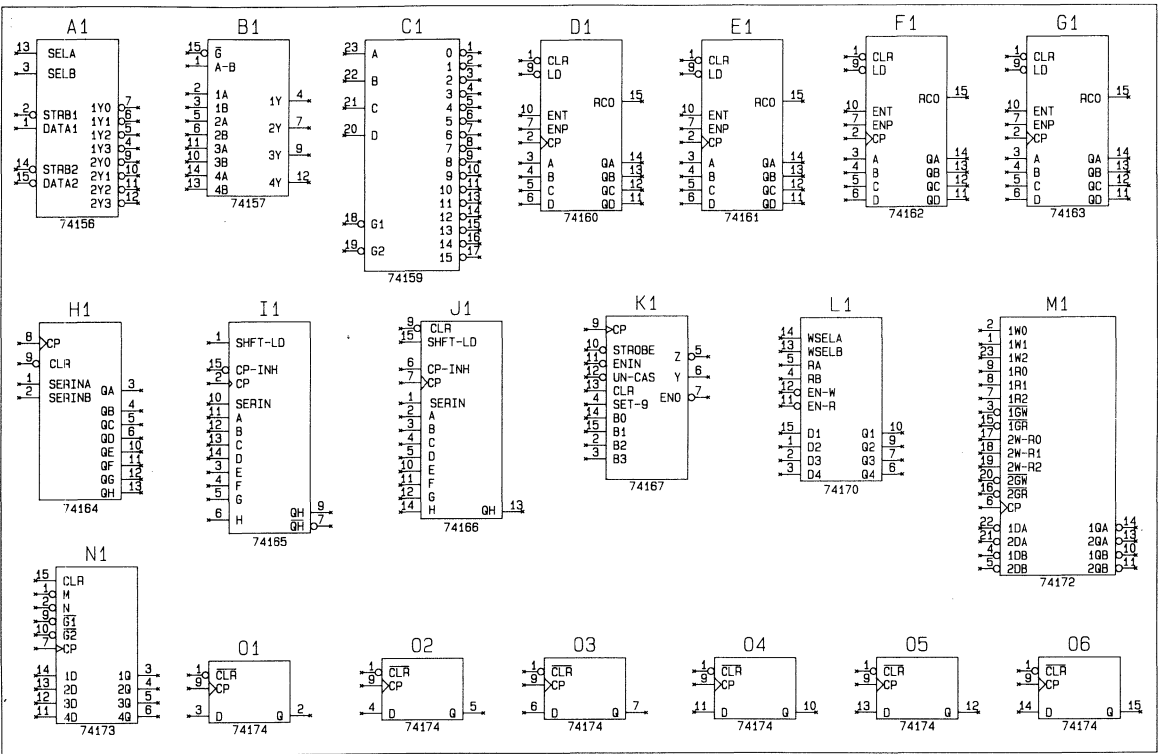
PLOT 6

000-0065-03

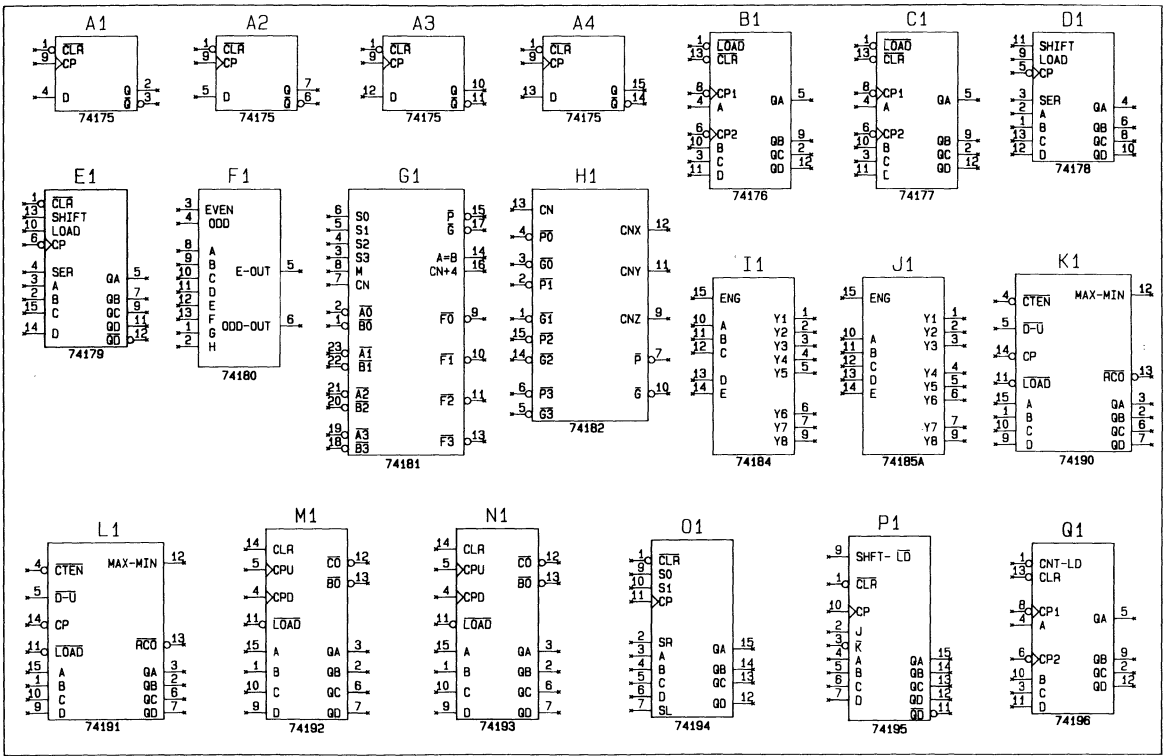


STANDARD COMPONENT SYMBOL PLOTS

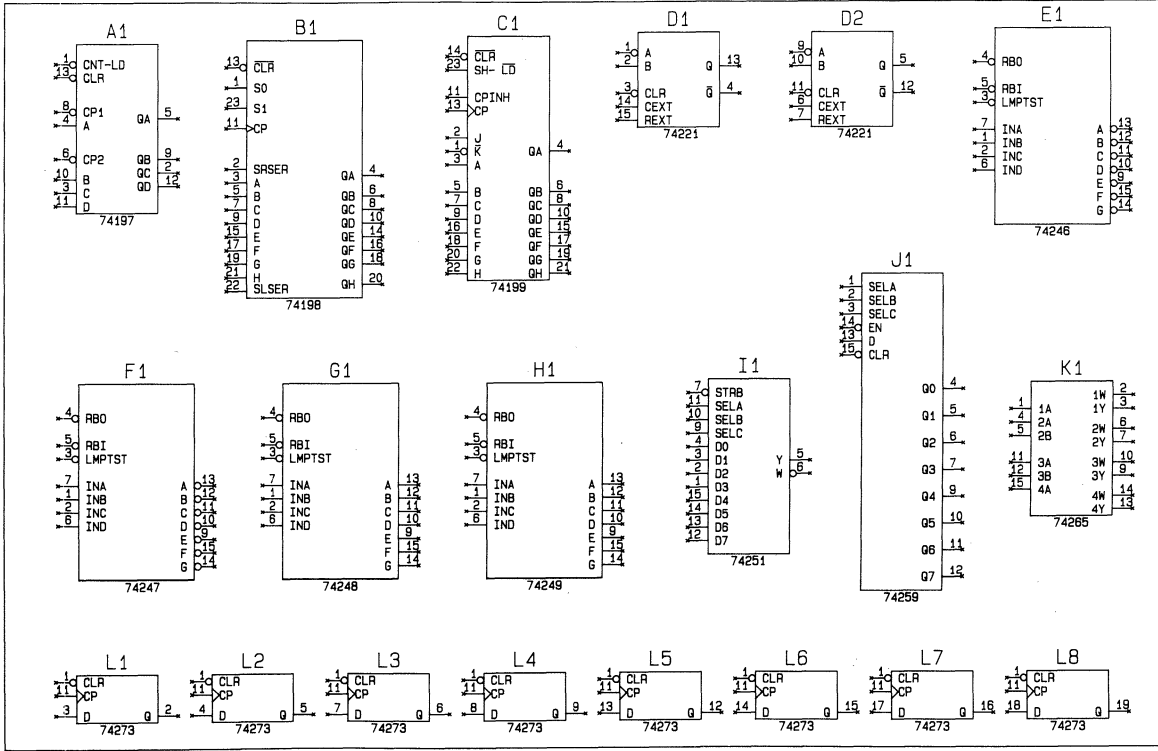
PLOT 7

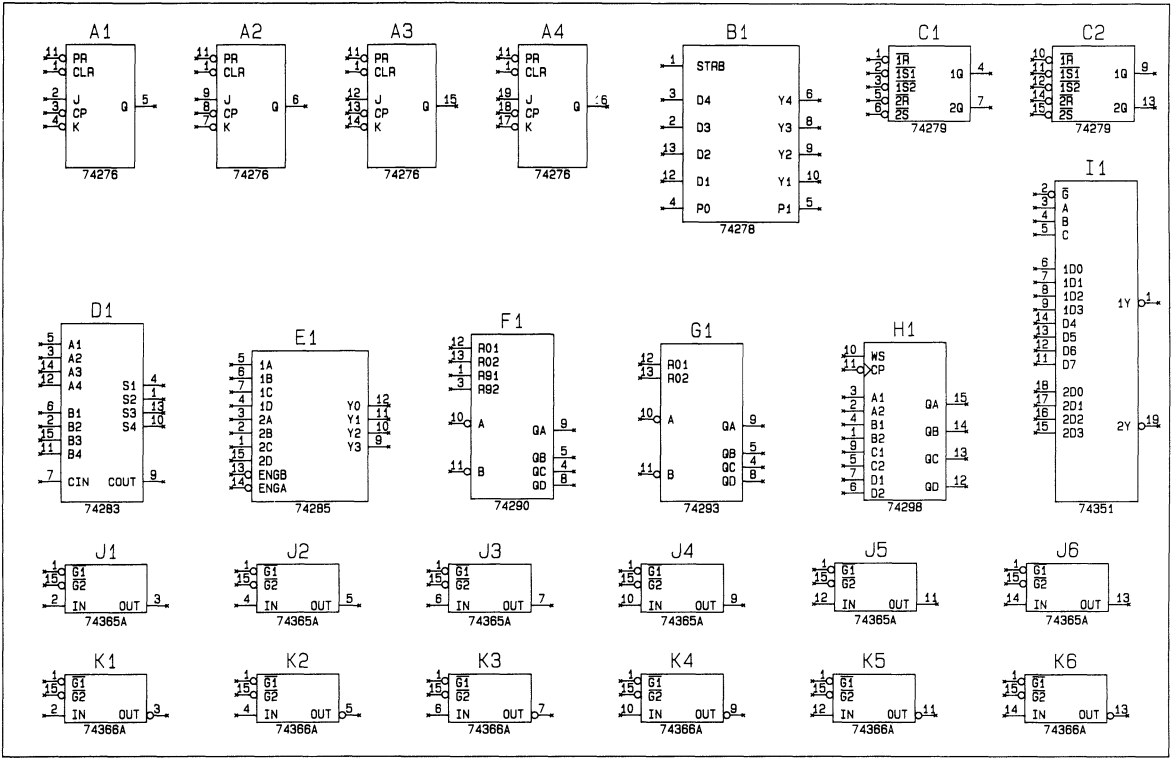


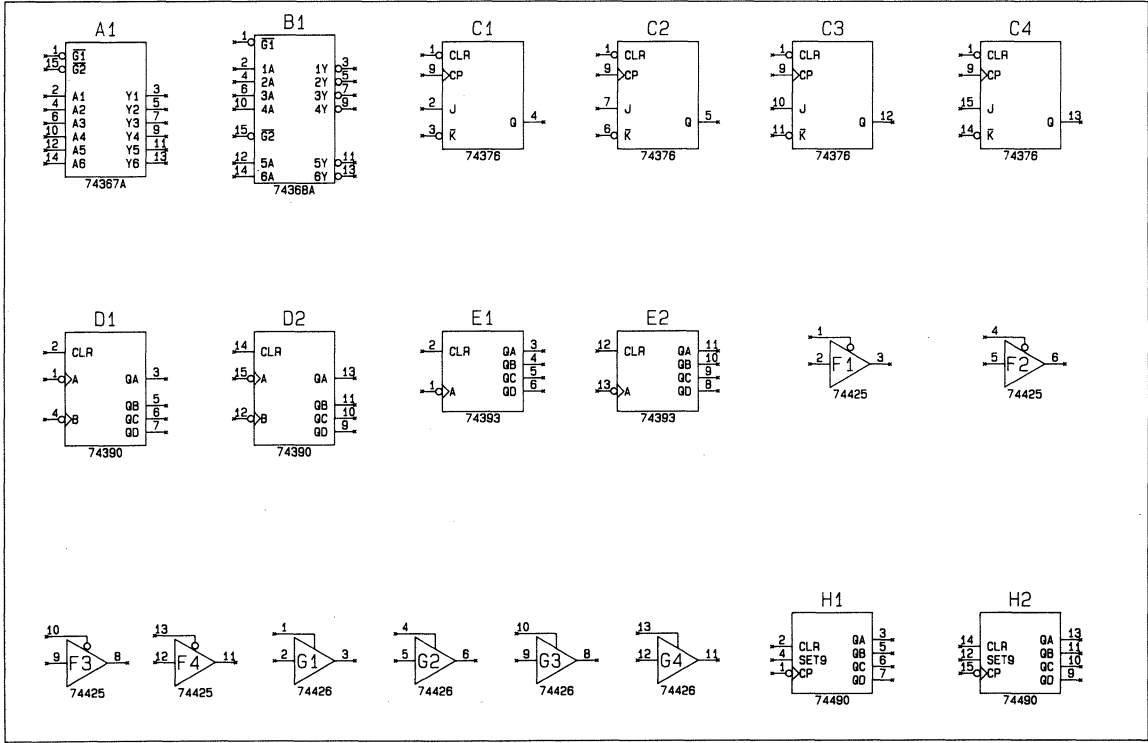
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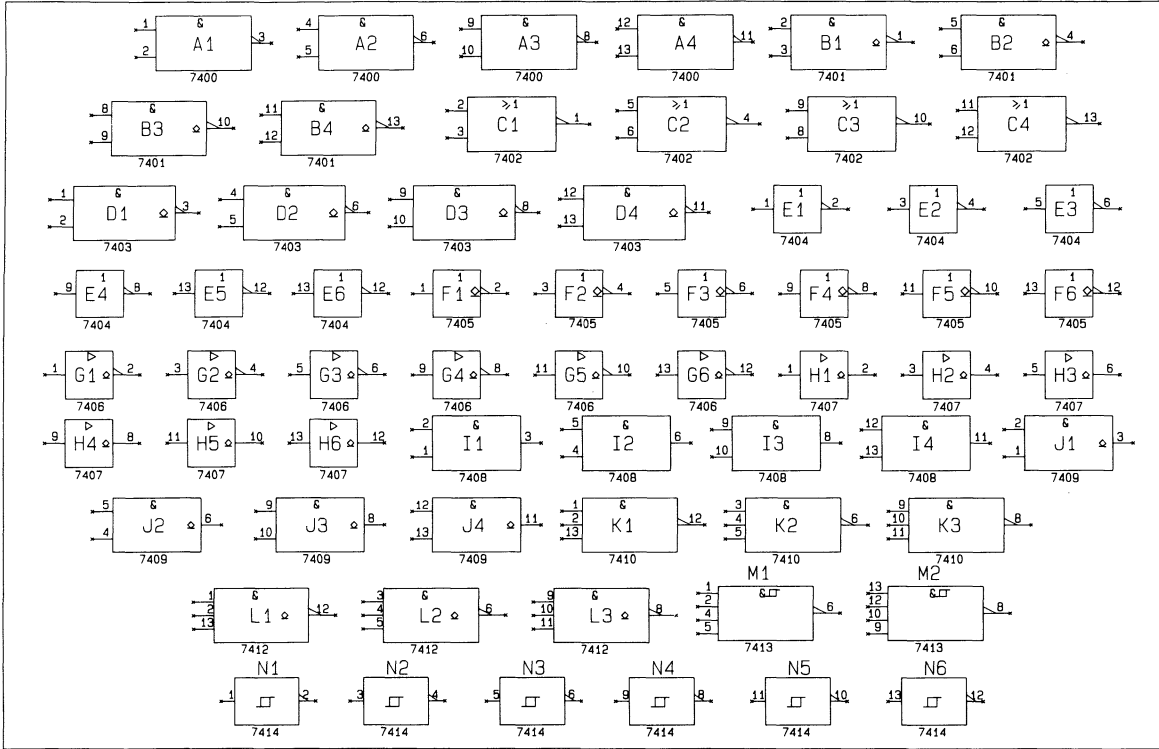
STANDARD COMPONENT SYMBOL PLOTS





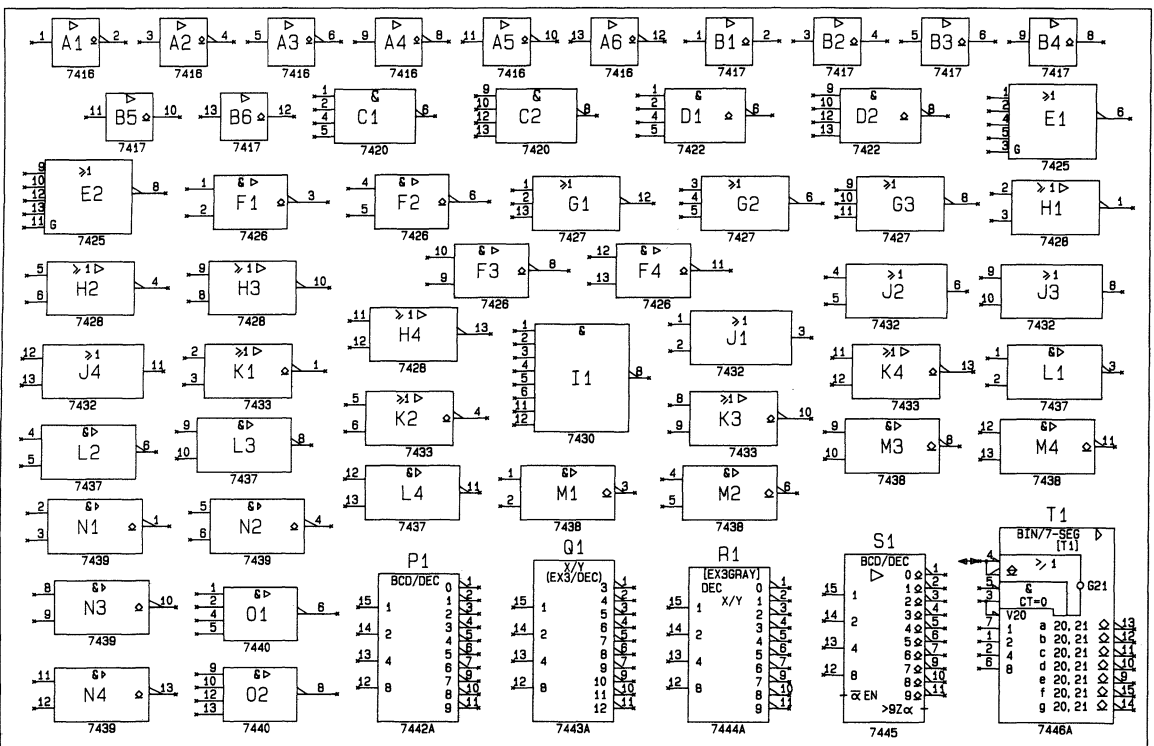


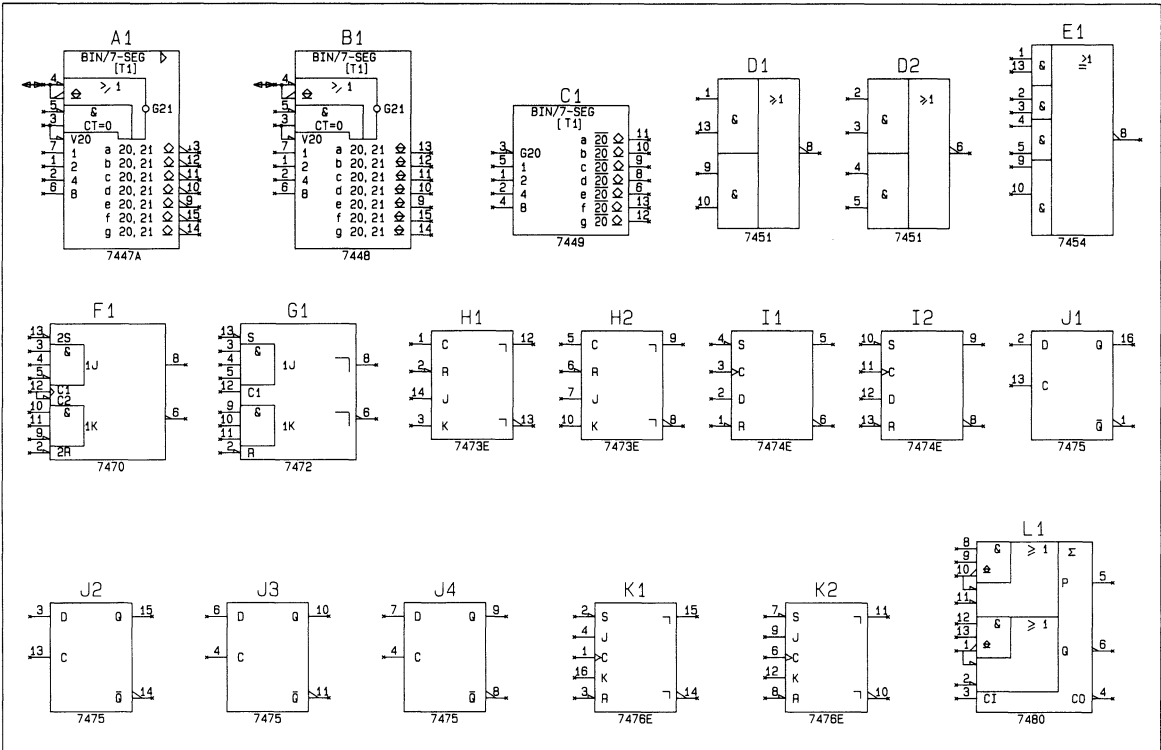
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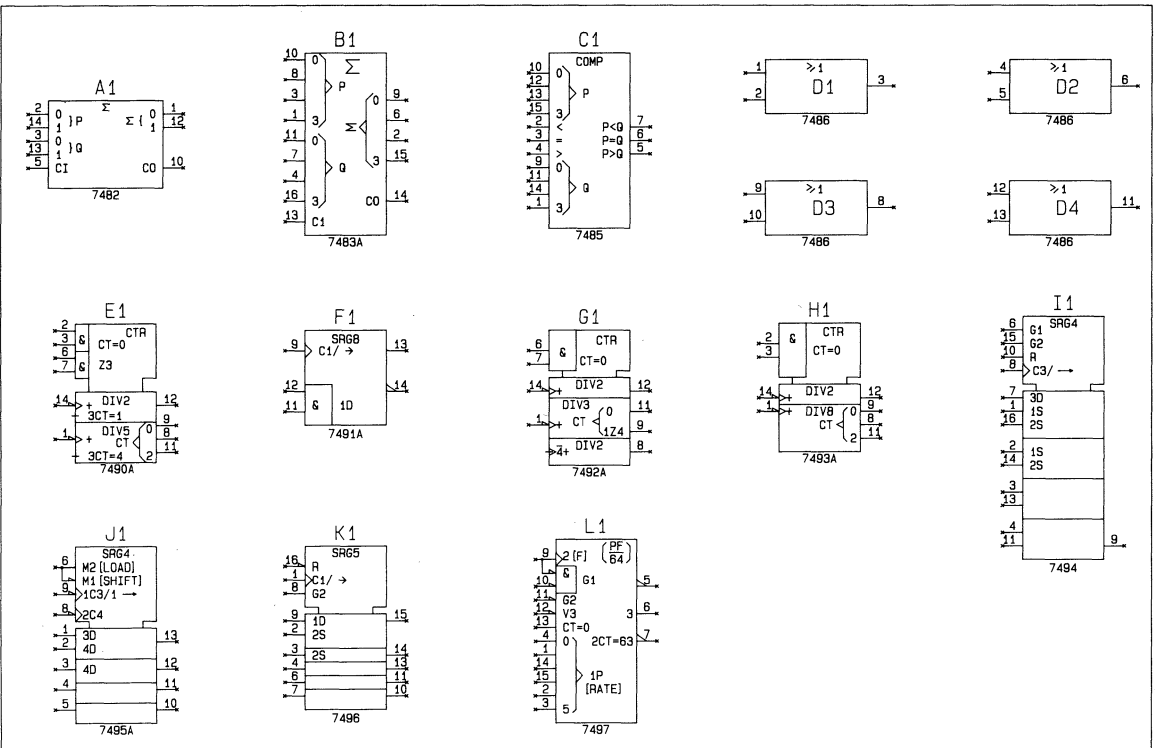


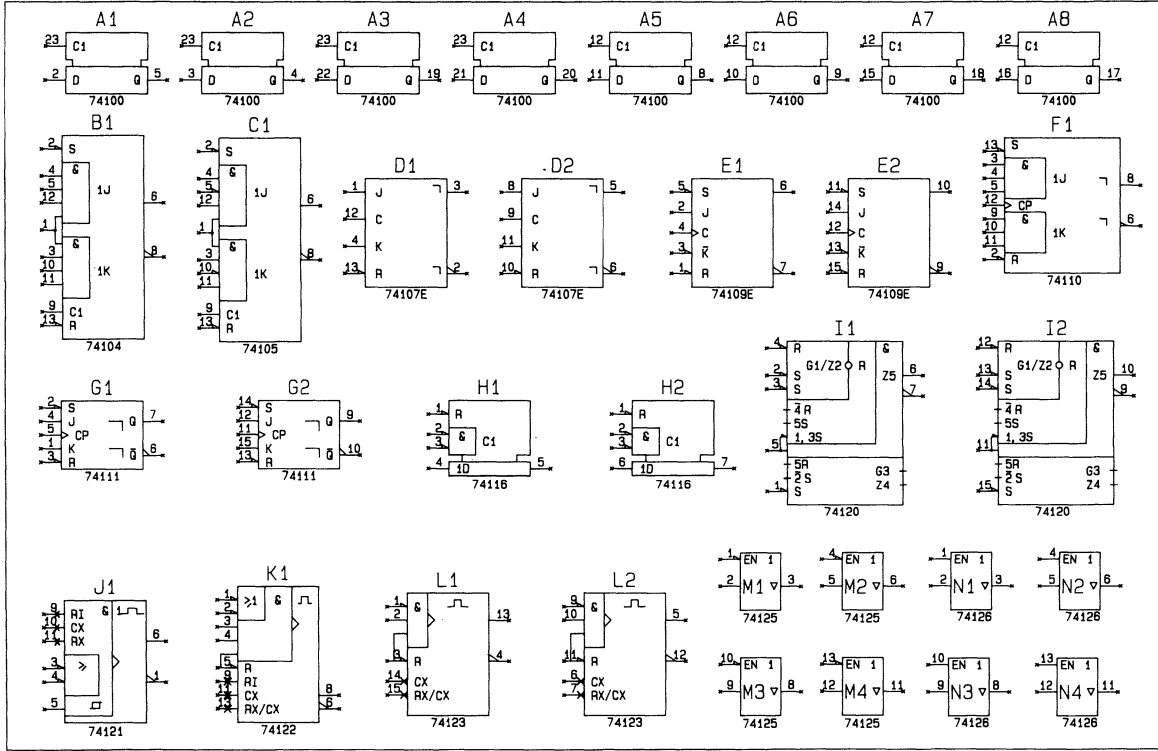
STANDARD COMPONENT SYMBOL PLOTS

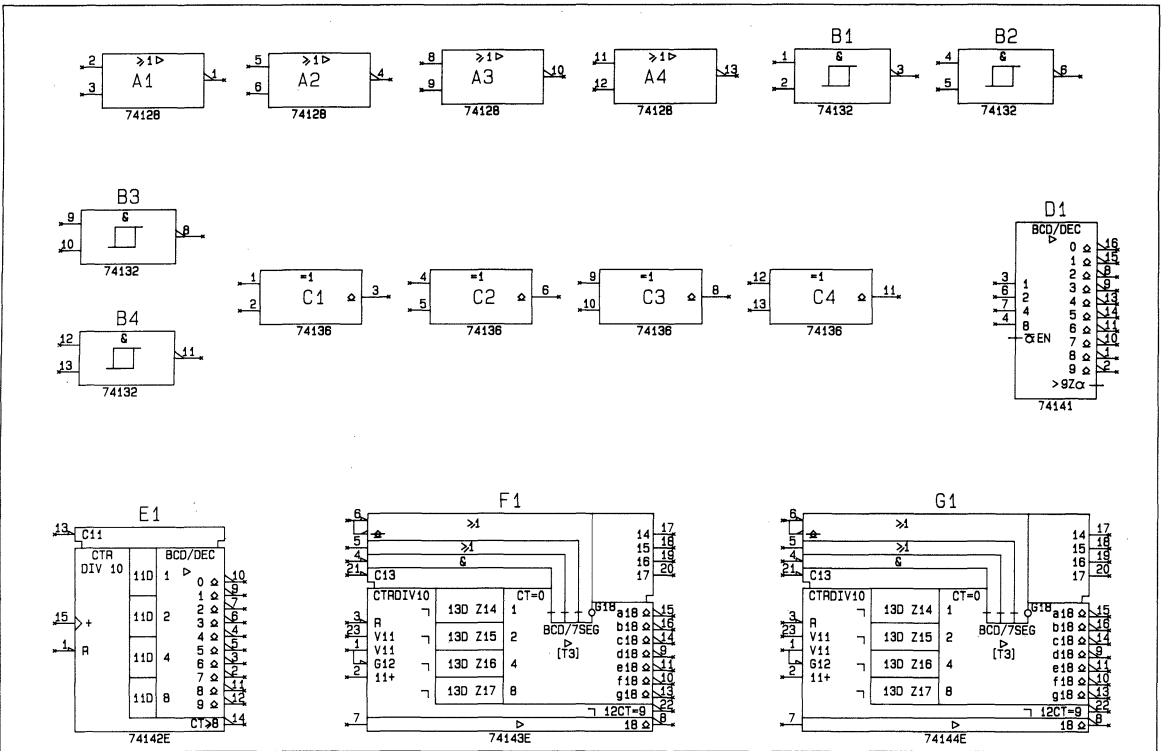
PLOT 1E



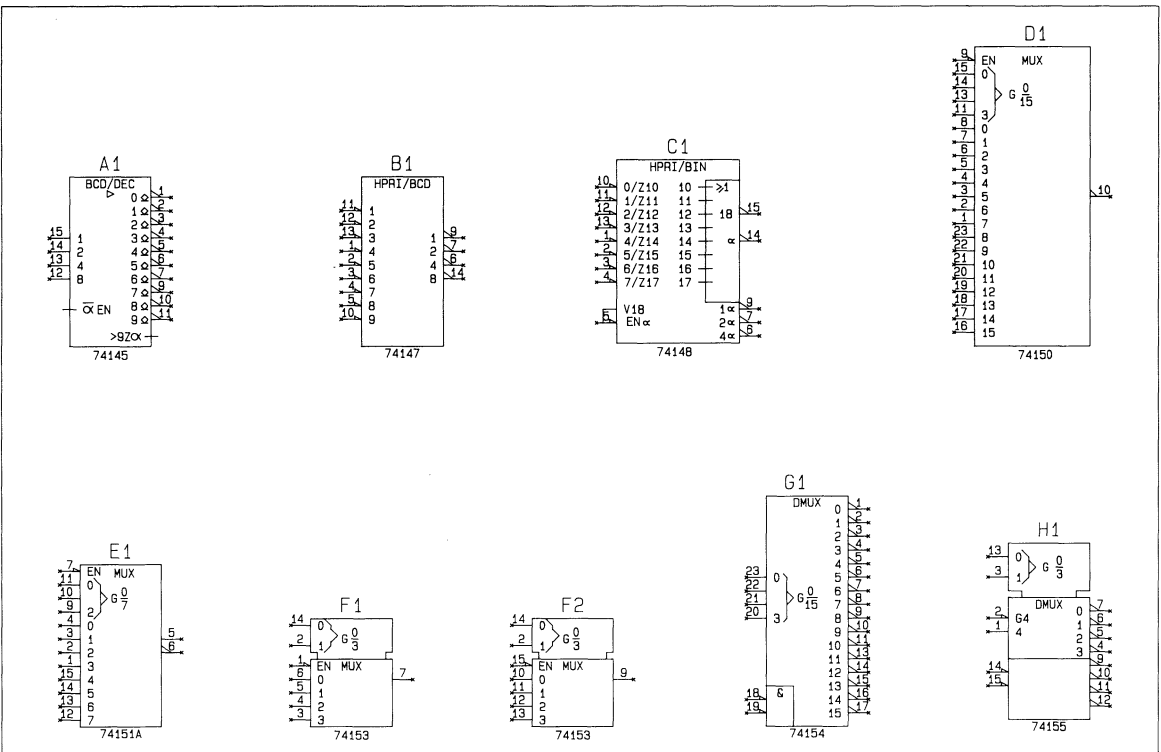


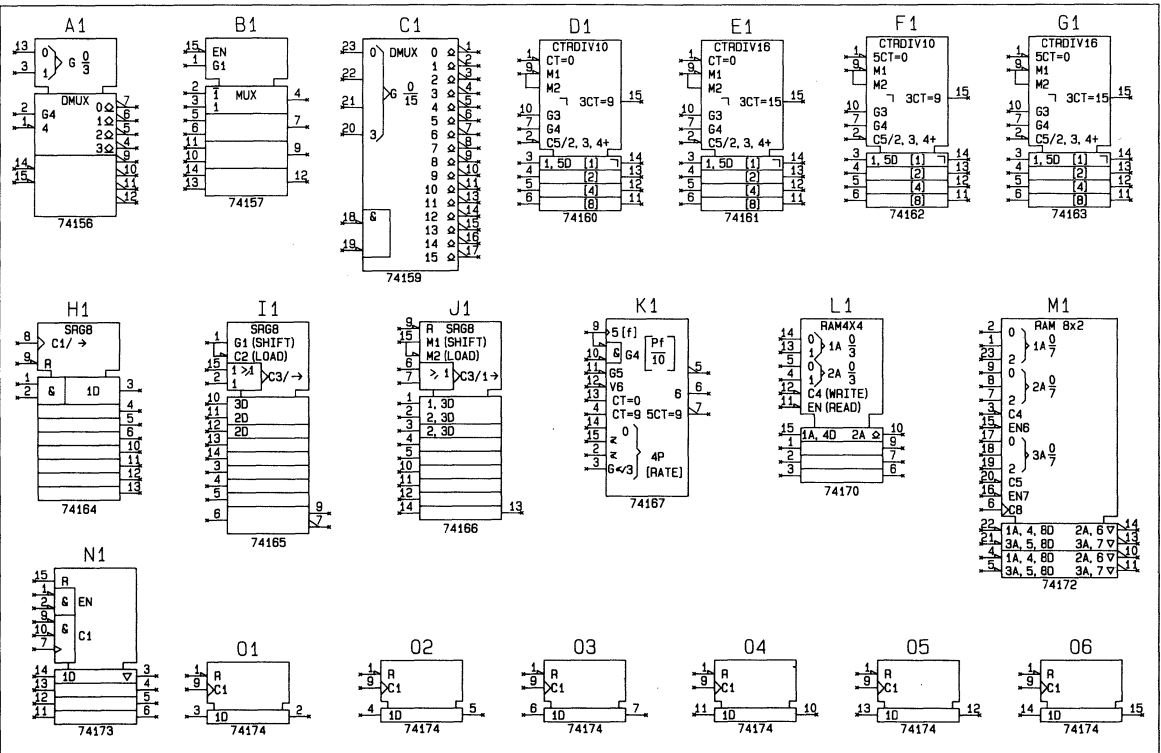




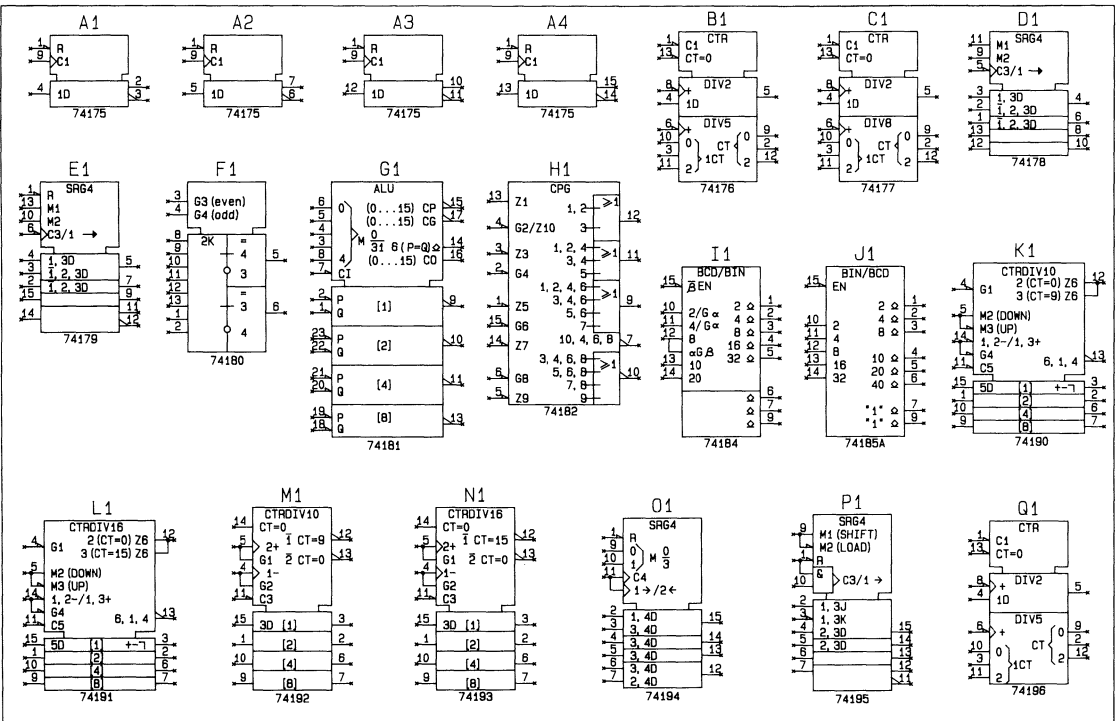


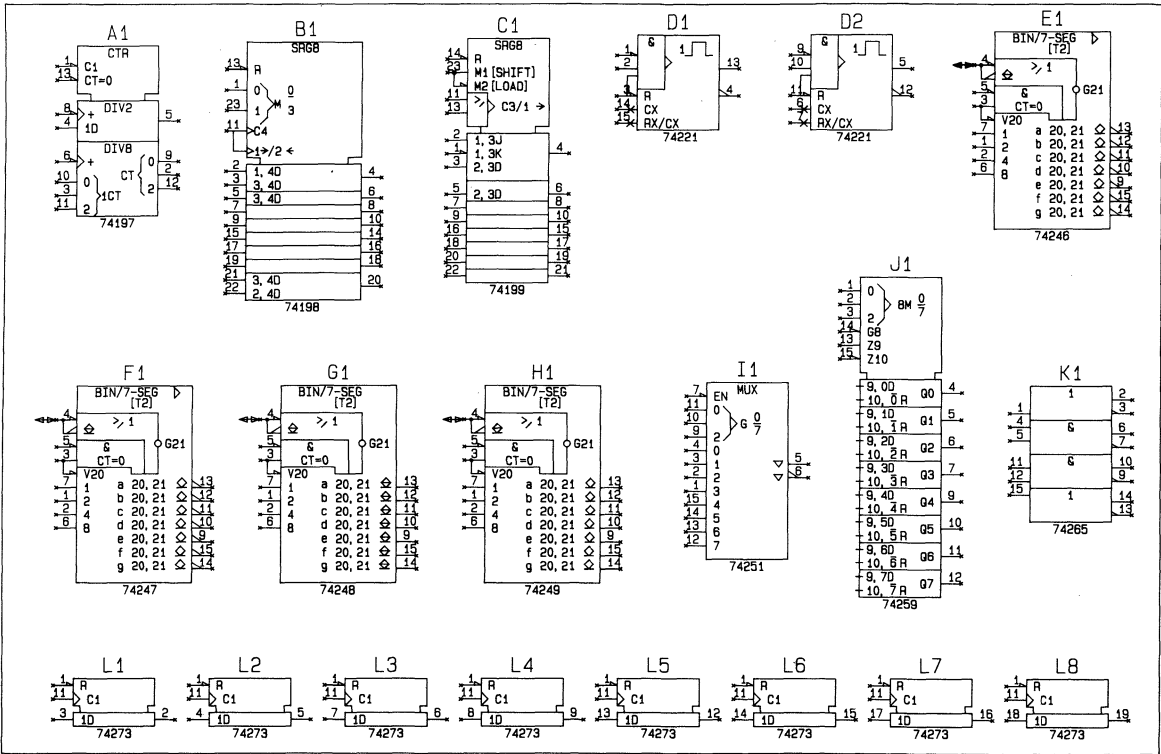
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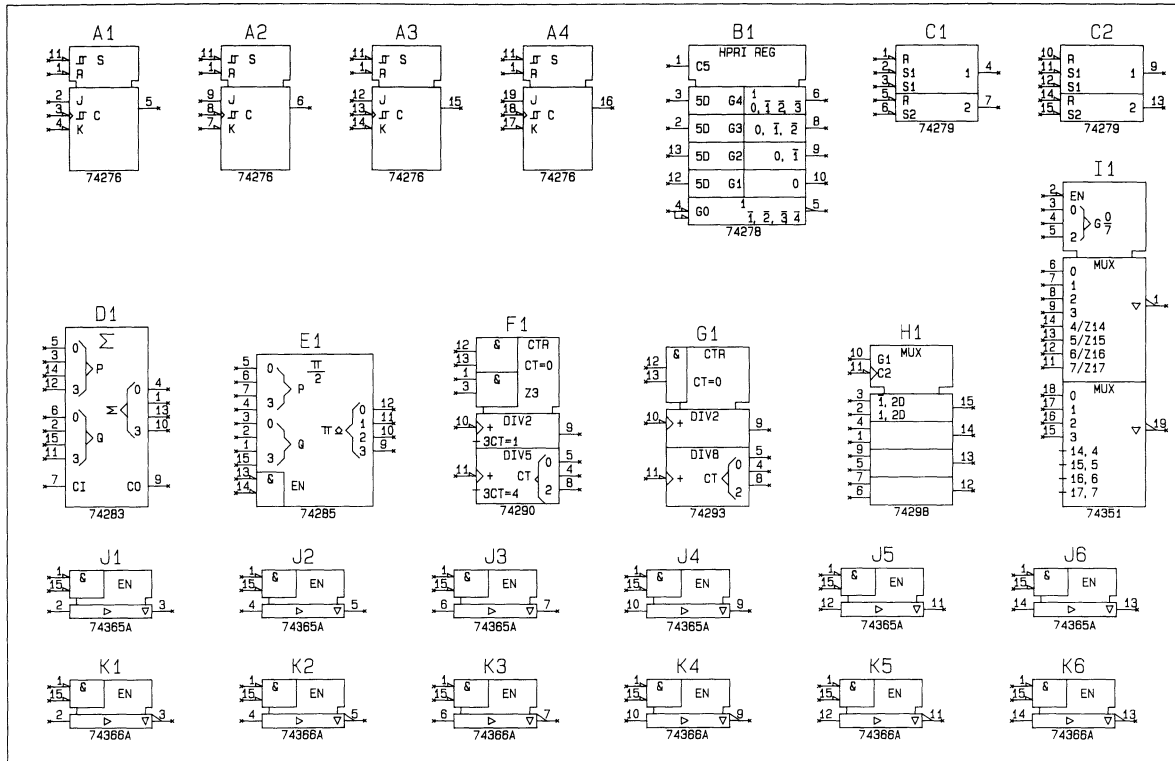


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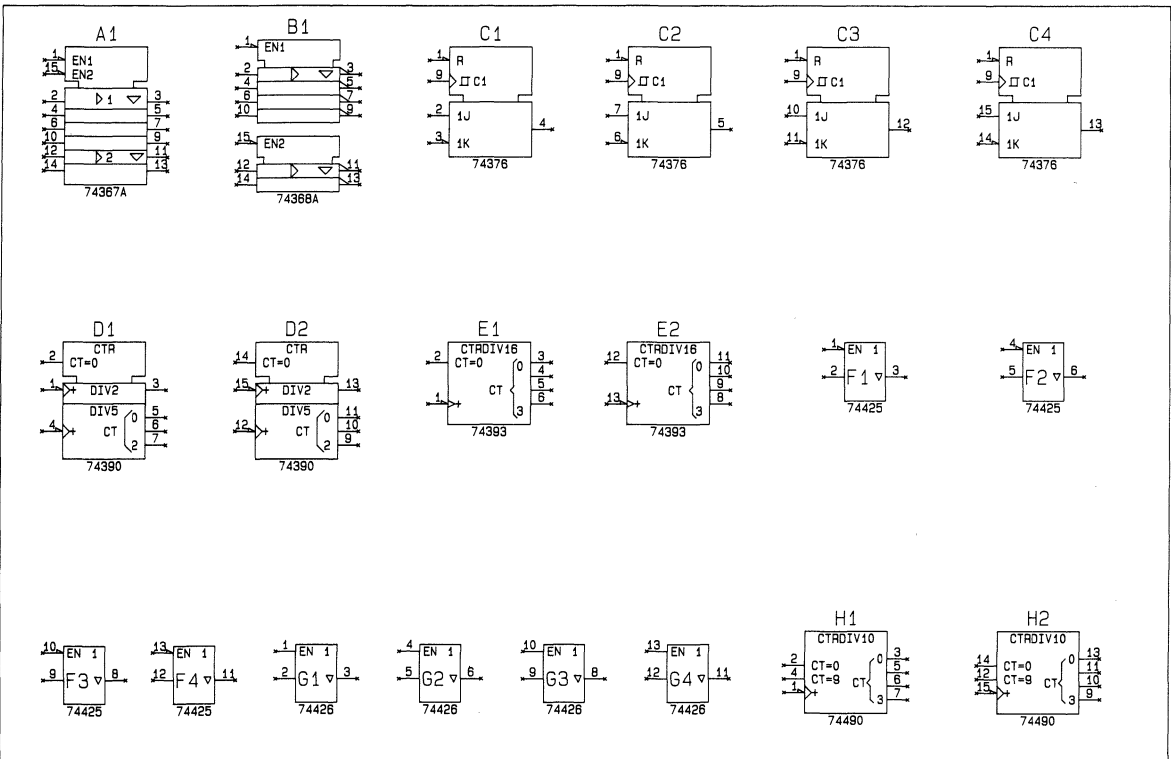
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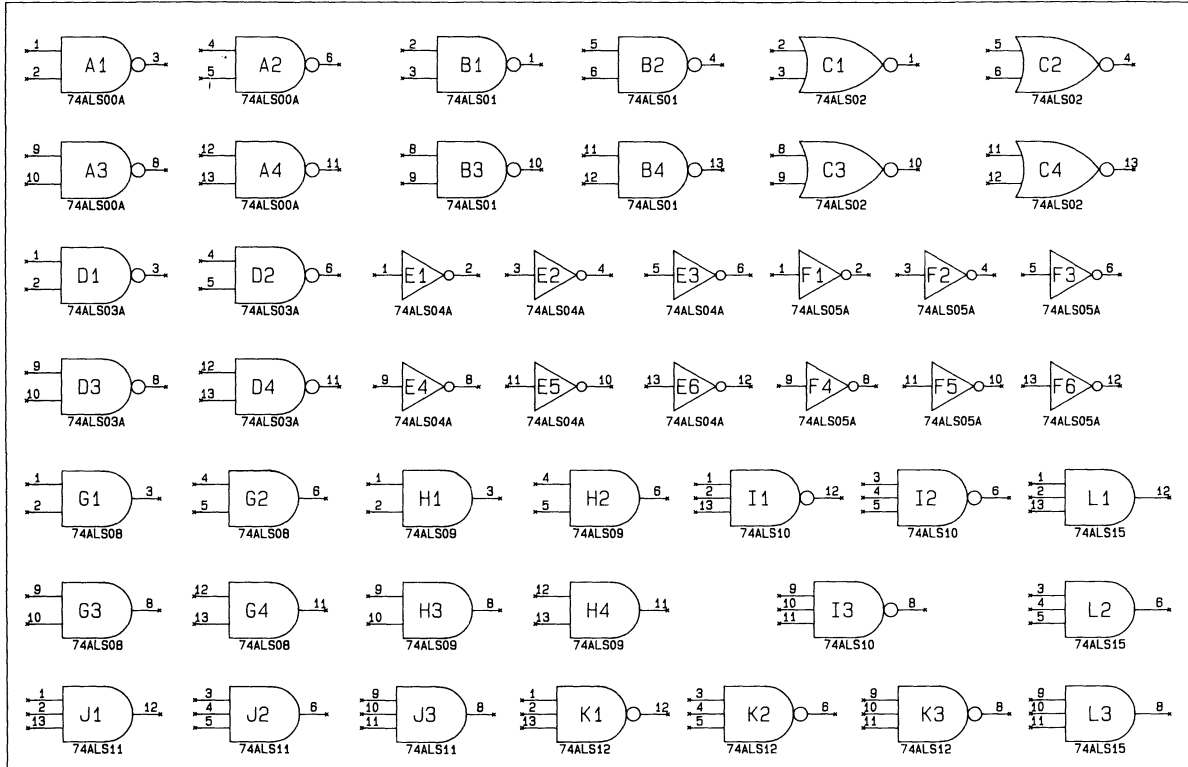
STANDARD COMPONENT SYMBOL PLOTS

PLOT 11E

Schematic Symbols 157

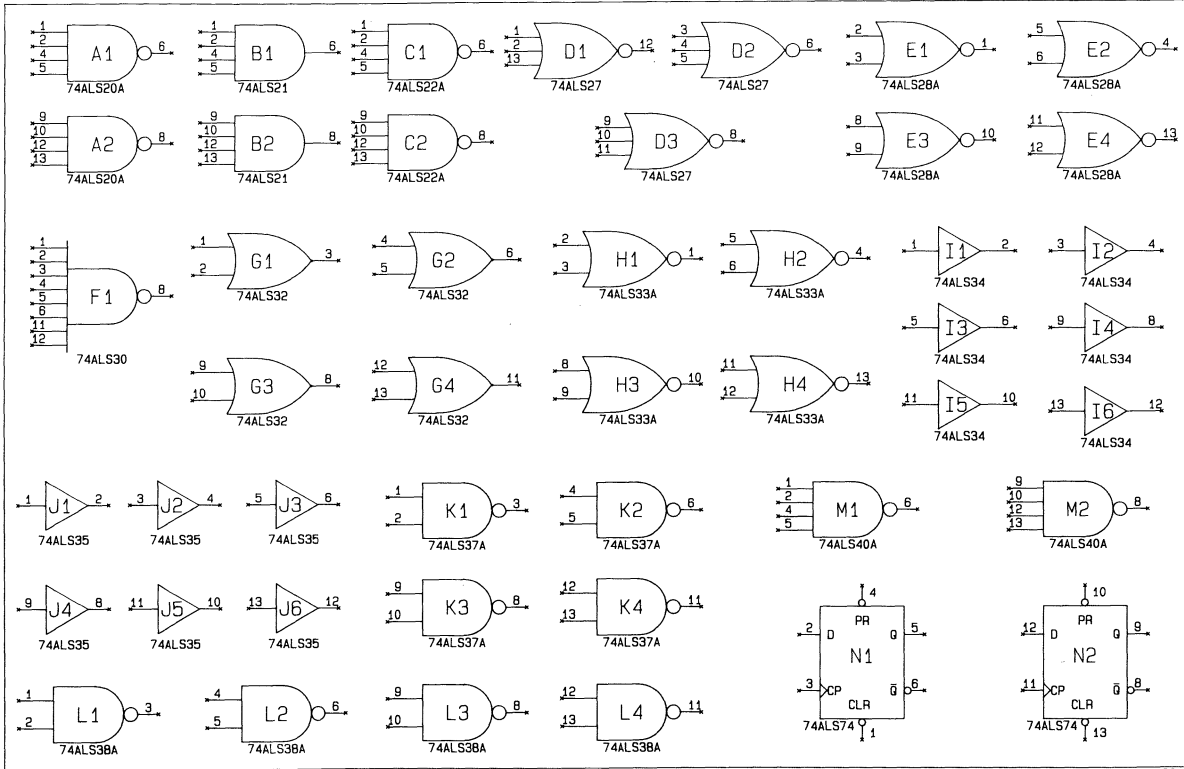


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ALS1

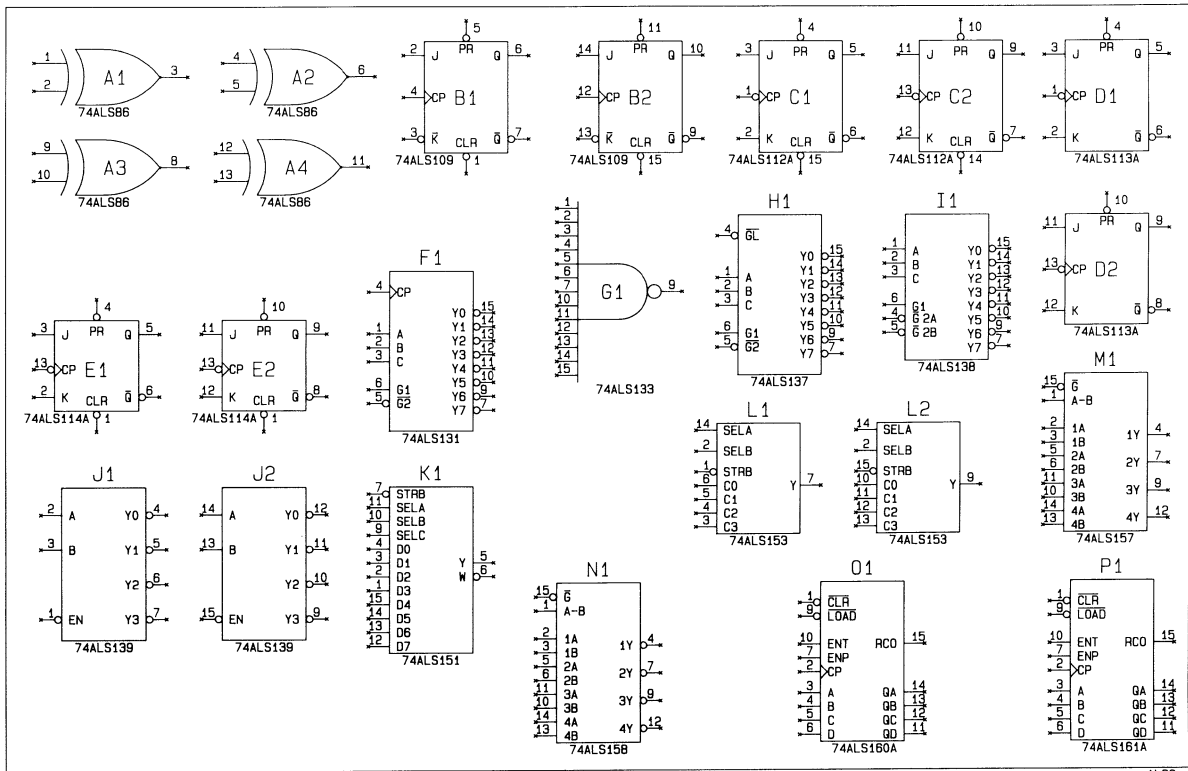
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS



AL52

PLOT ALS2

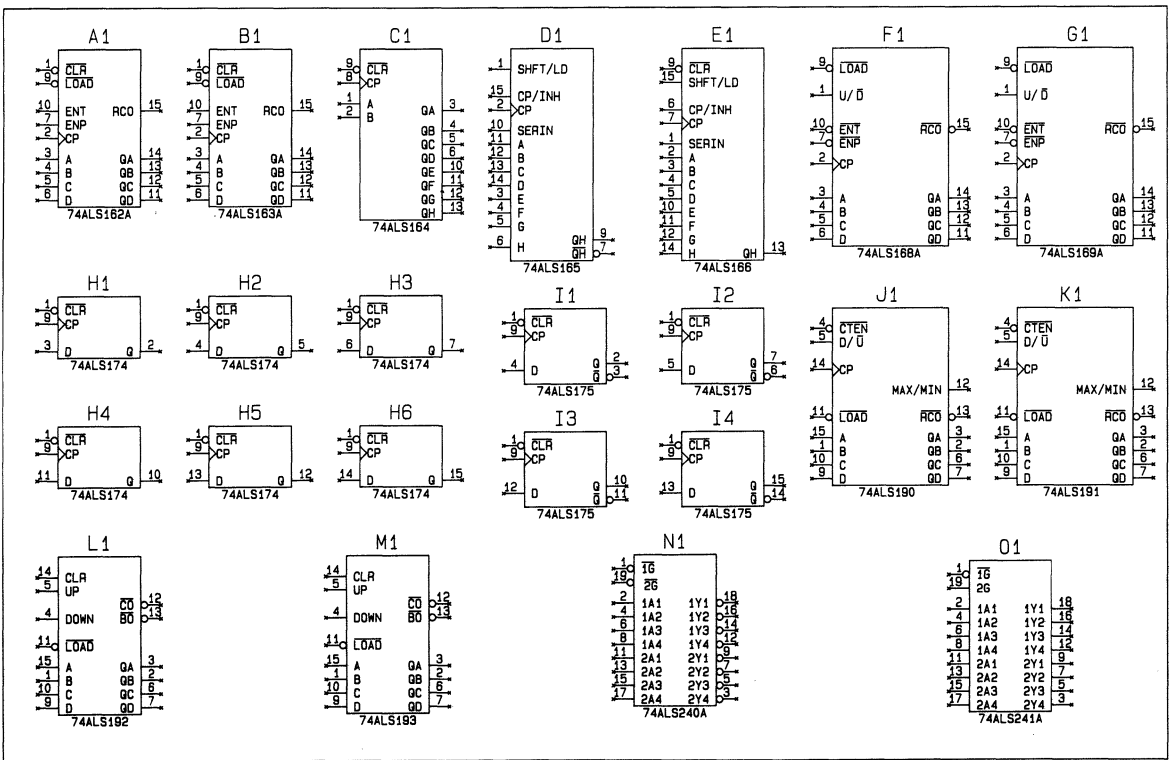
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ALS3

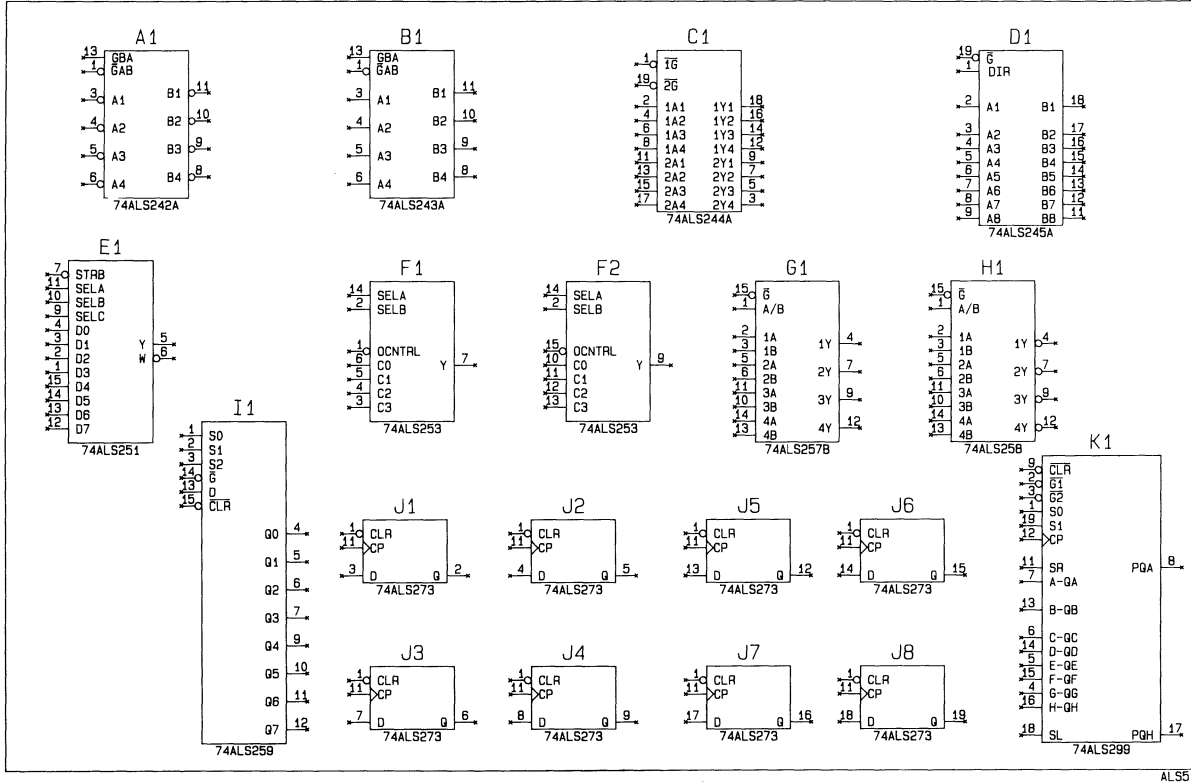
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS4



ALS4

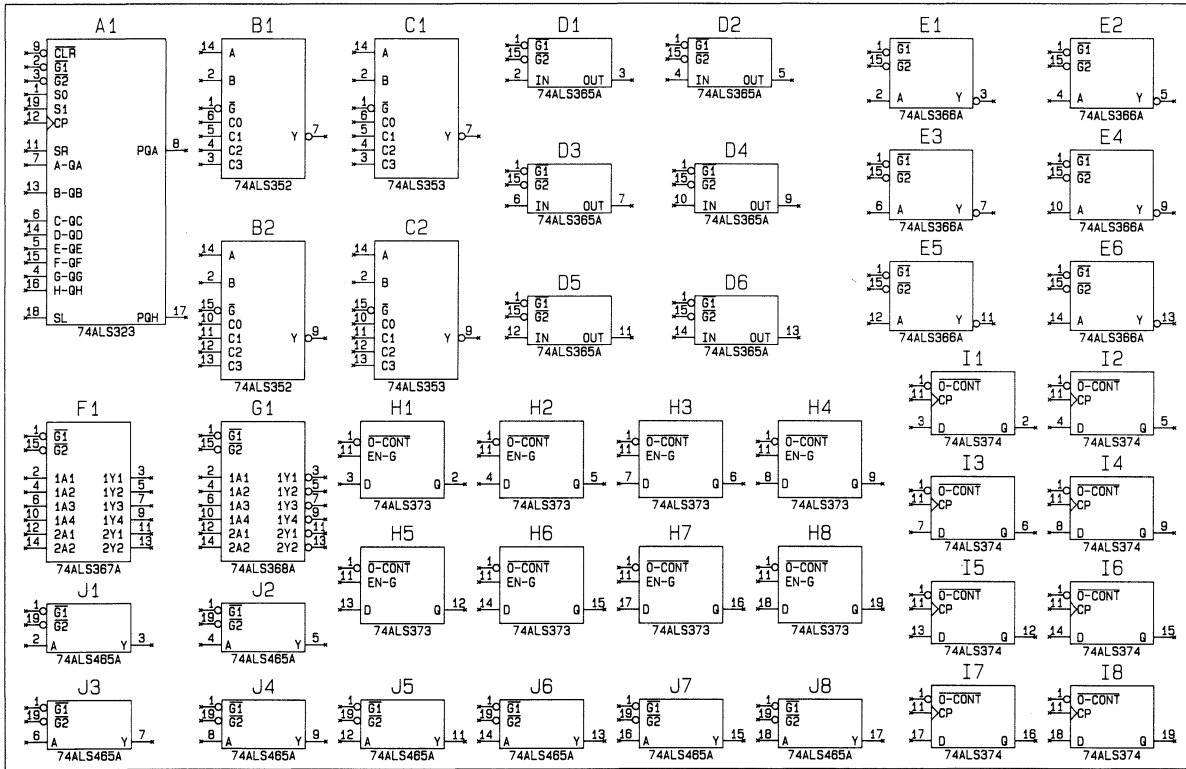
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AL55

ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

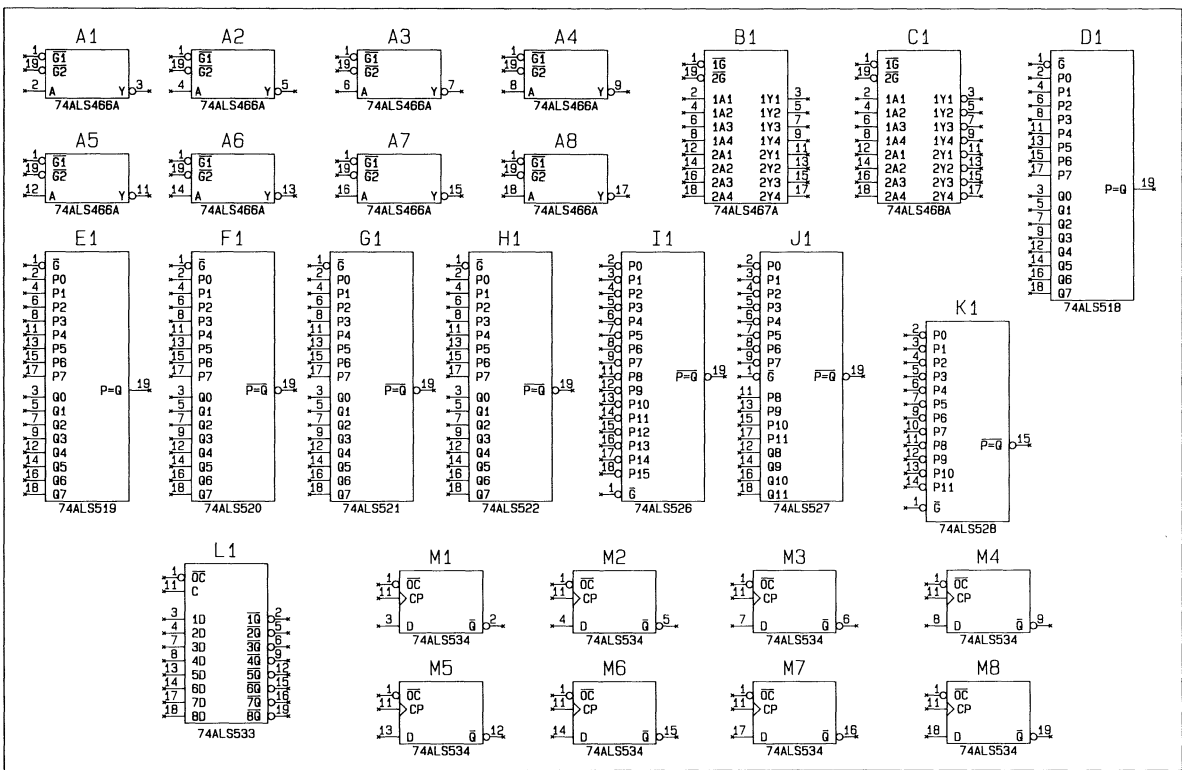
PLOT ALS6



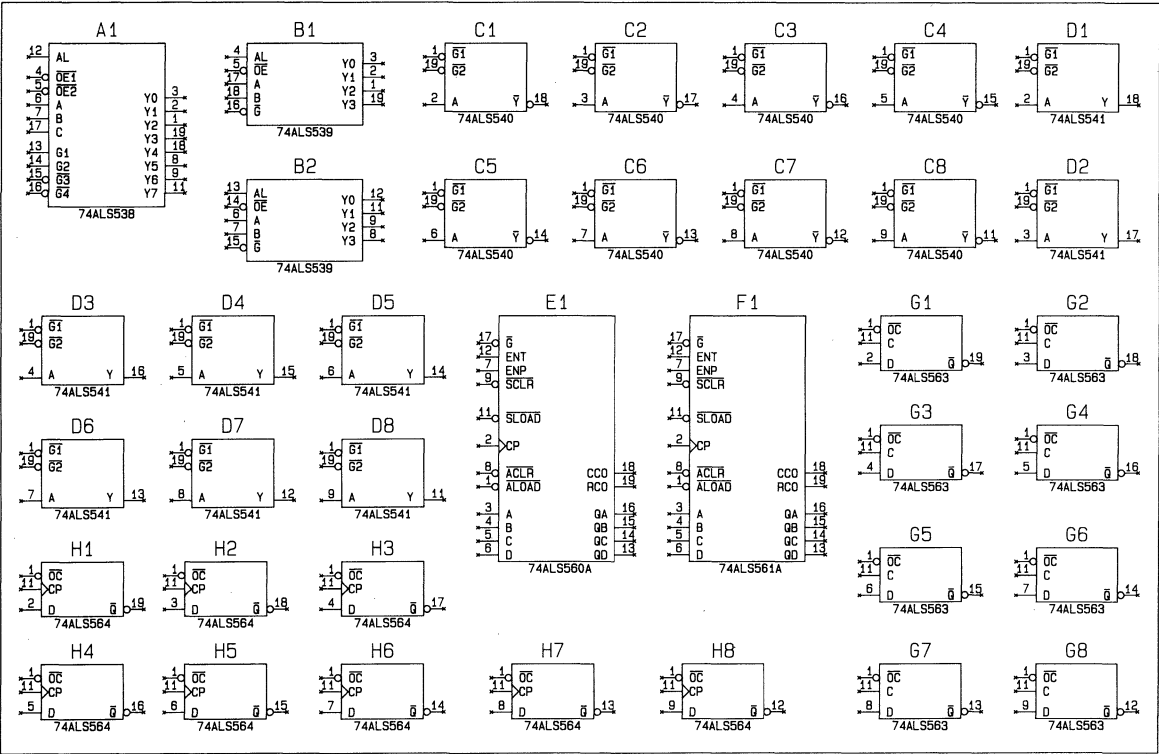
000-0065-03

ALS6

ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

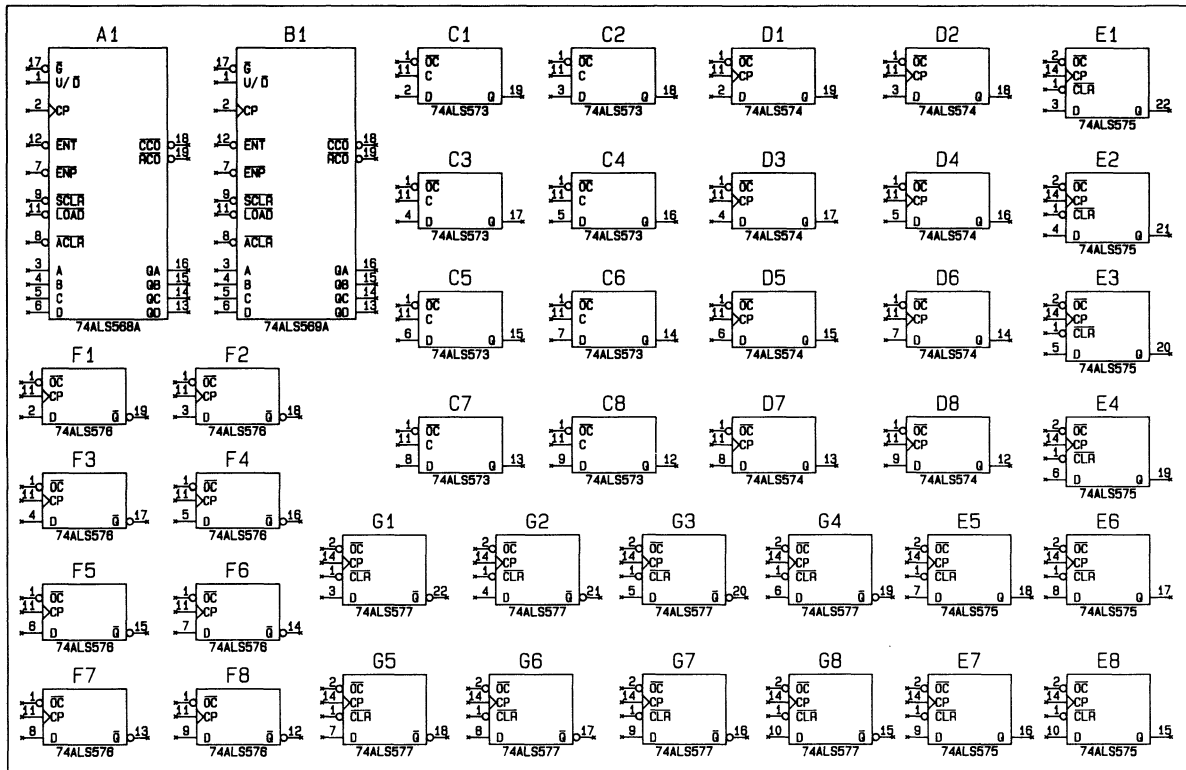


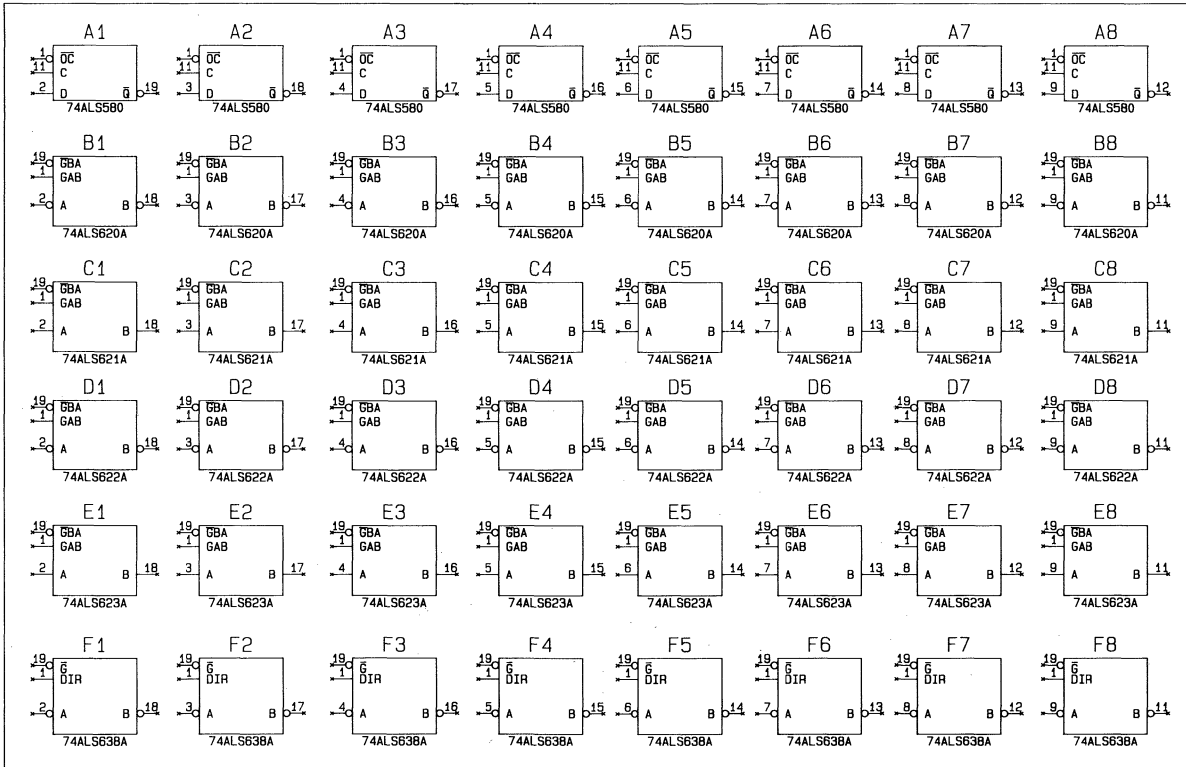
ALS7



ALS8

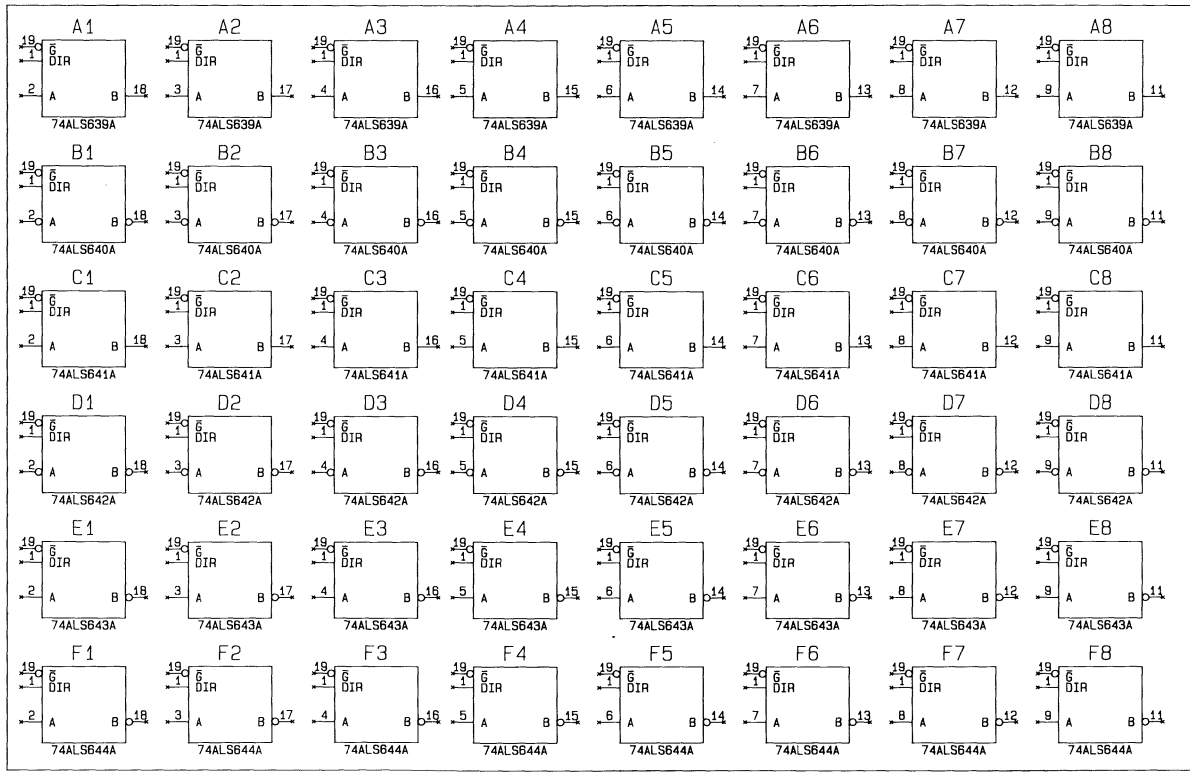
000-0065-03





ALS10

000-0065-03



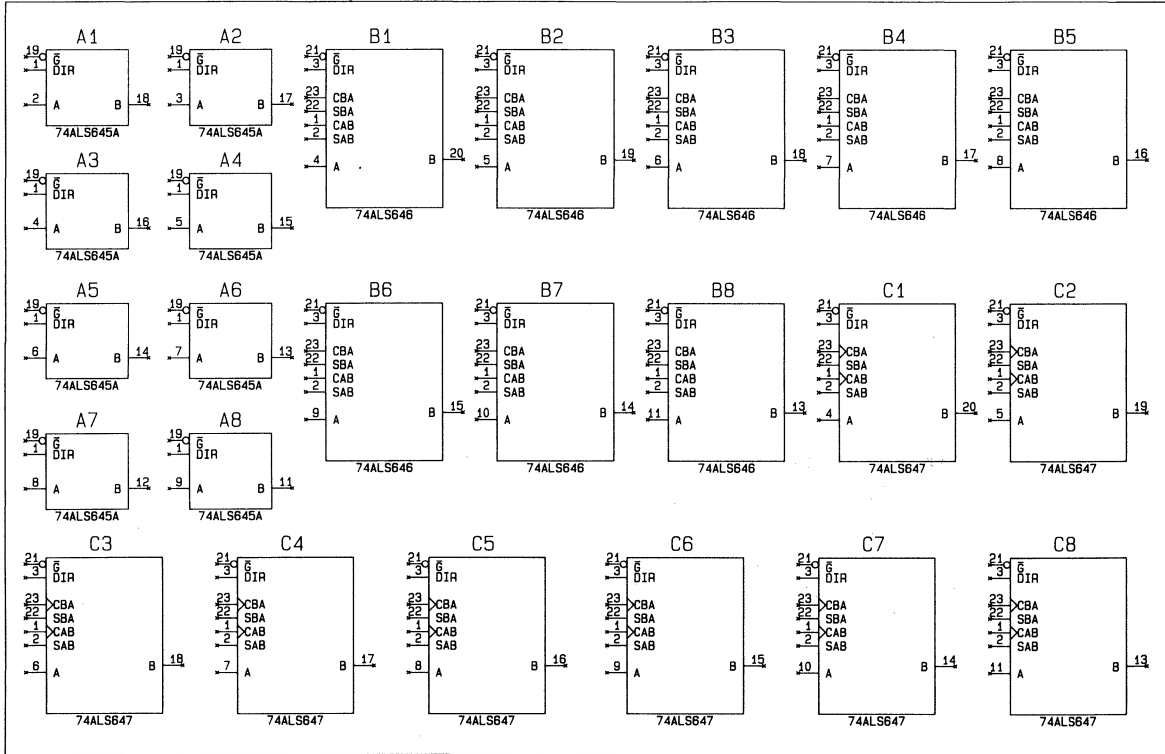
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS11

ALS11

ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

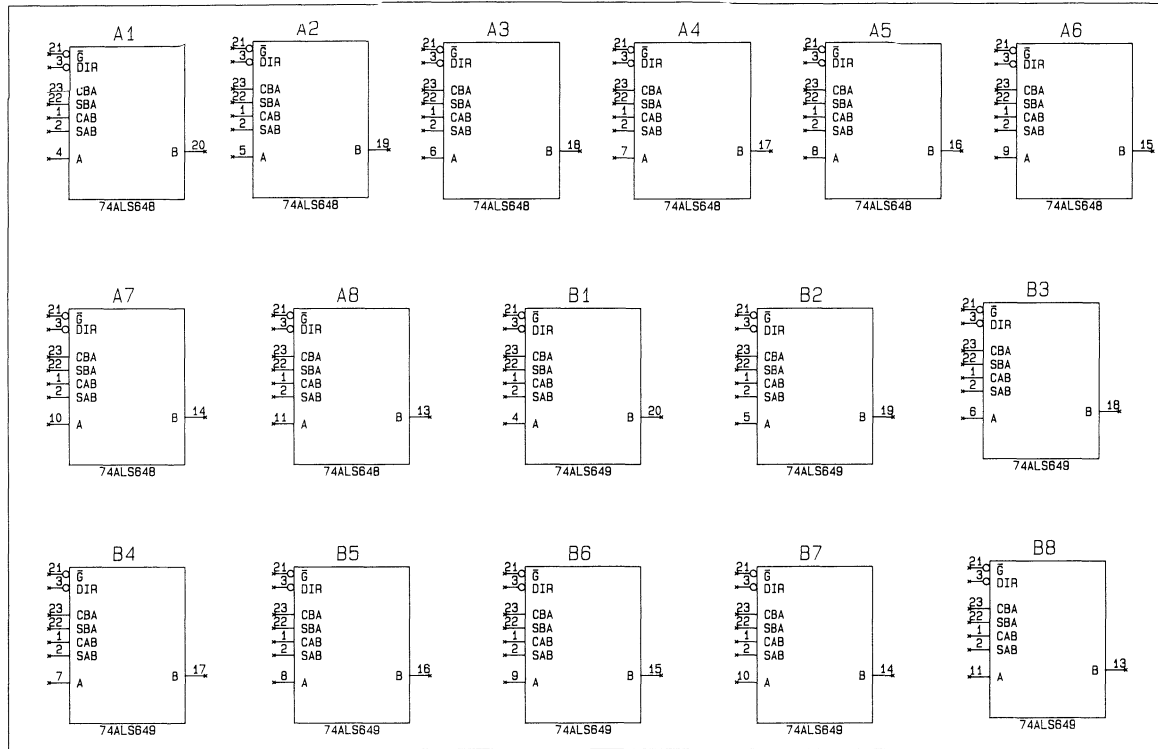
PLOT ALS12



ALS12

000-0065-03

ADVANCED LOW POWER SCHOTTKY COMPONENT
 SYMBOL PLOTS

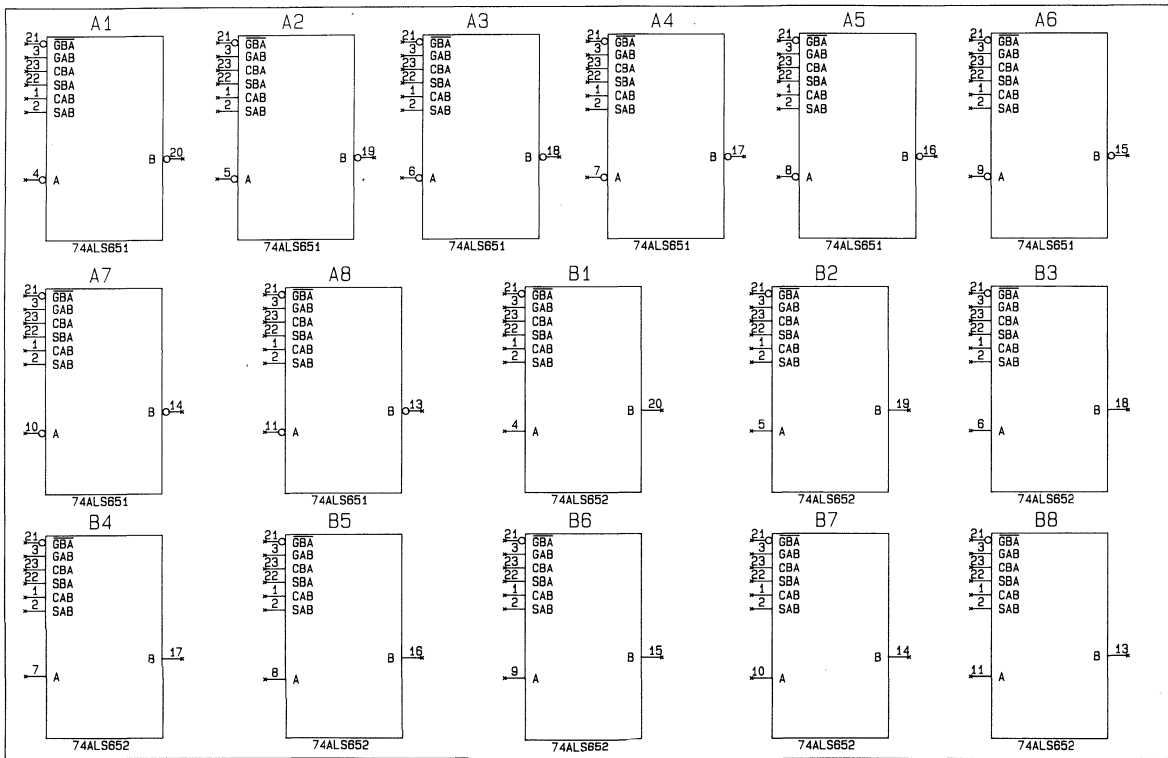


ALS13

PLOT ALS13

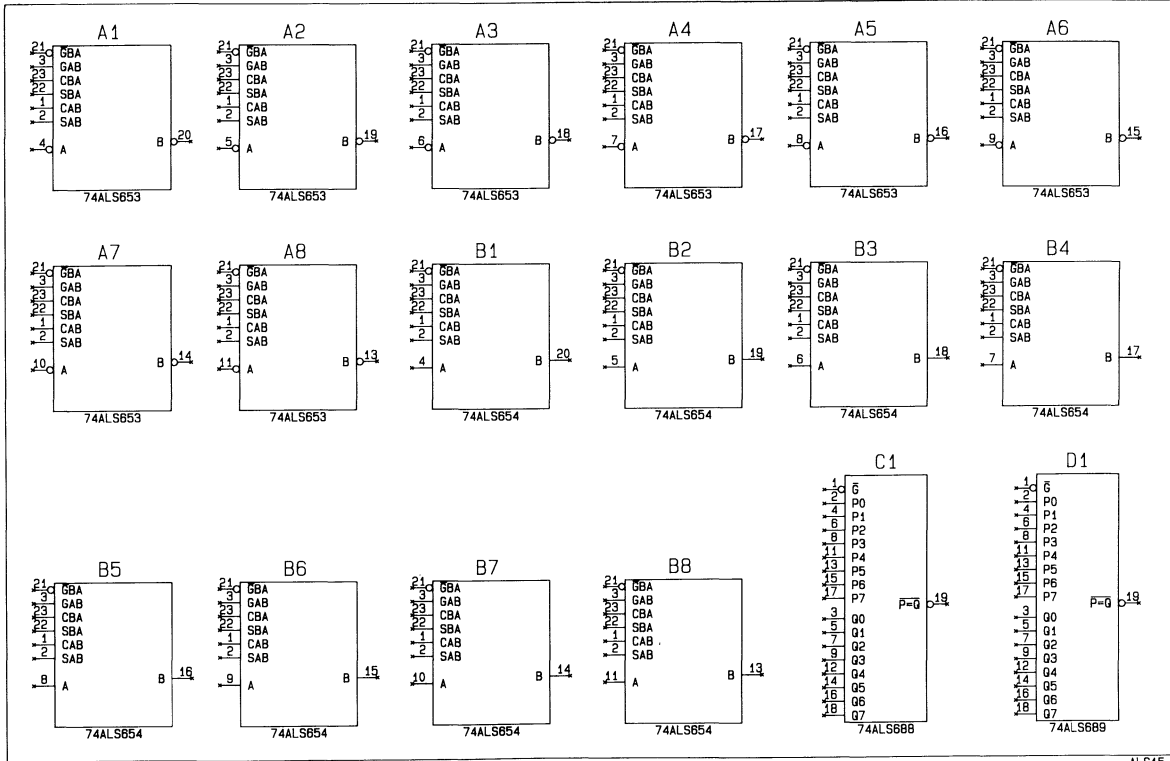
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS14



ALS14

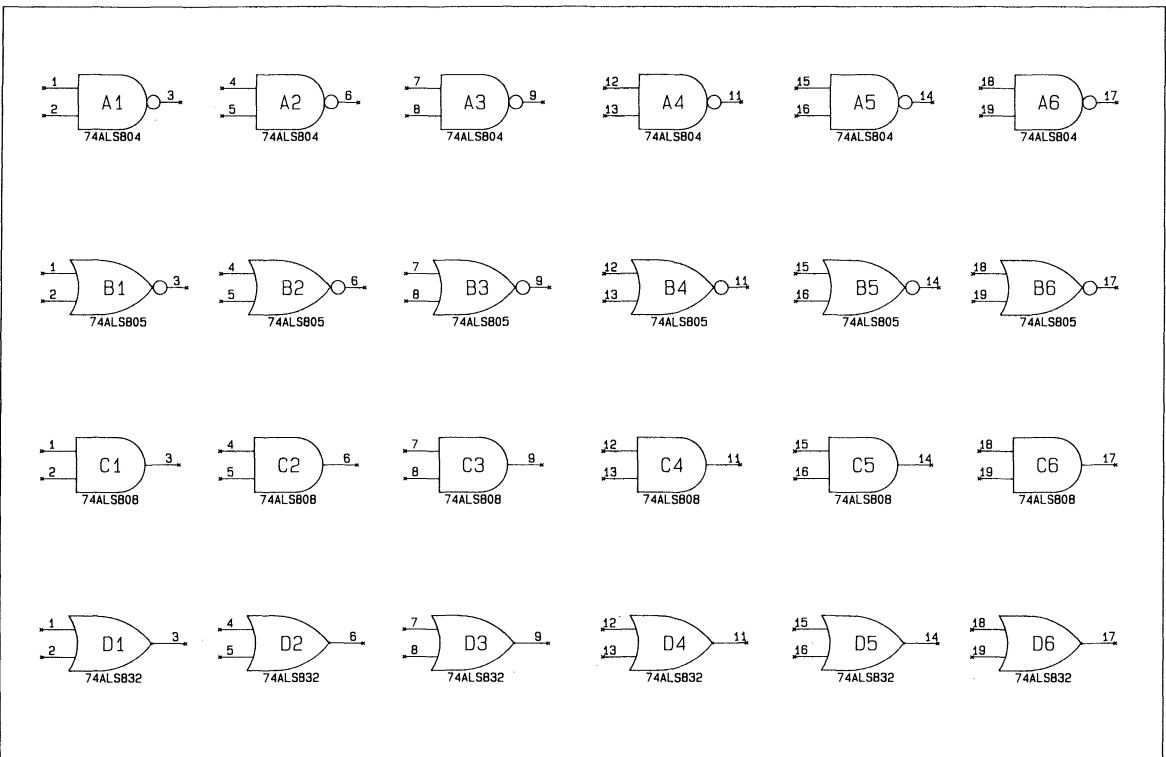
000-0065-03



ALS15

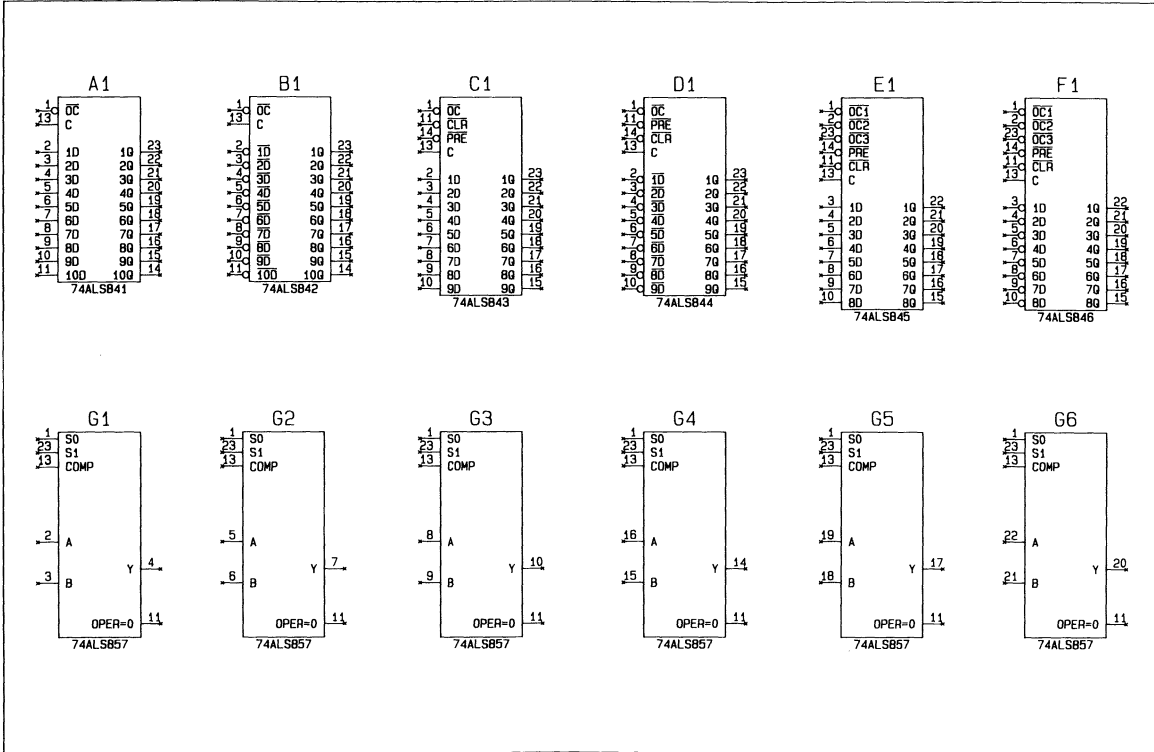
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS16



000-0065-03

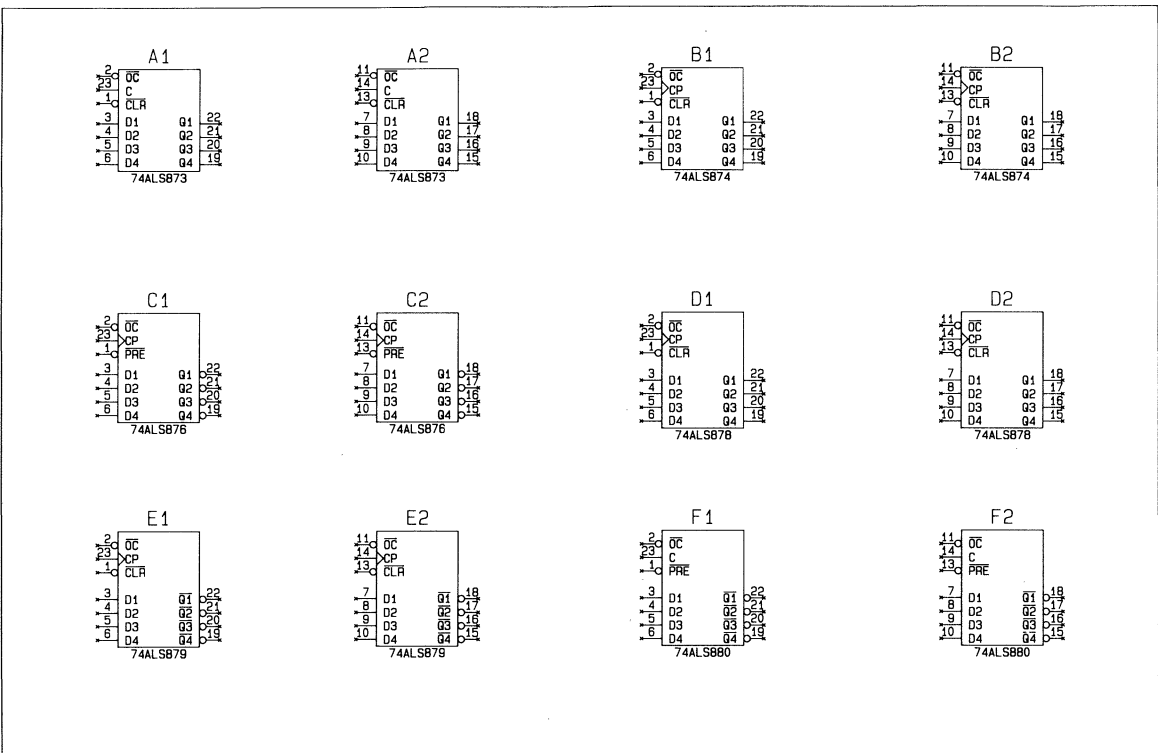
ALS16



ALS17

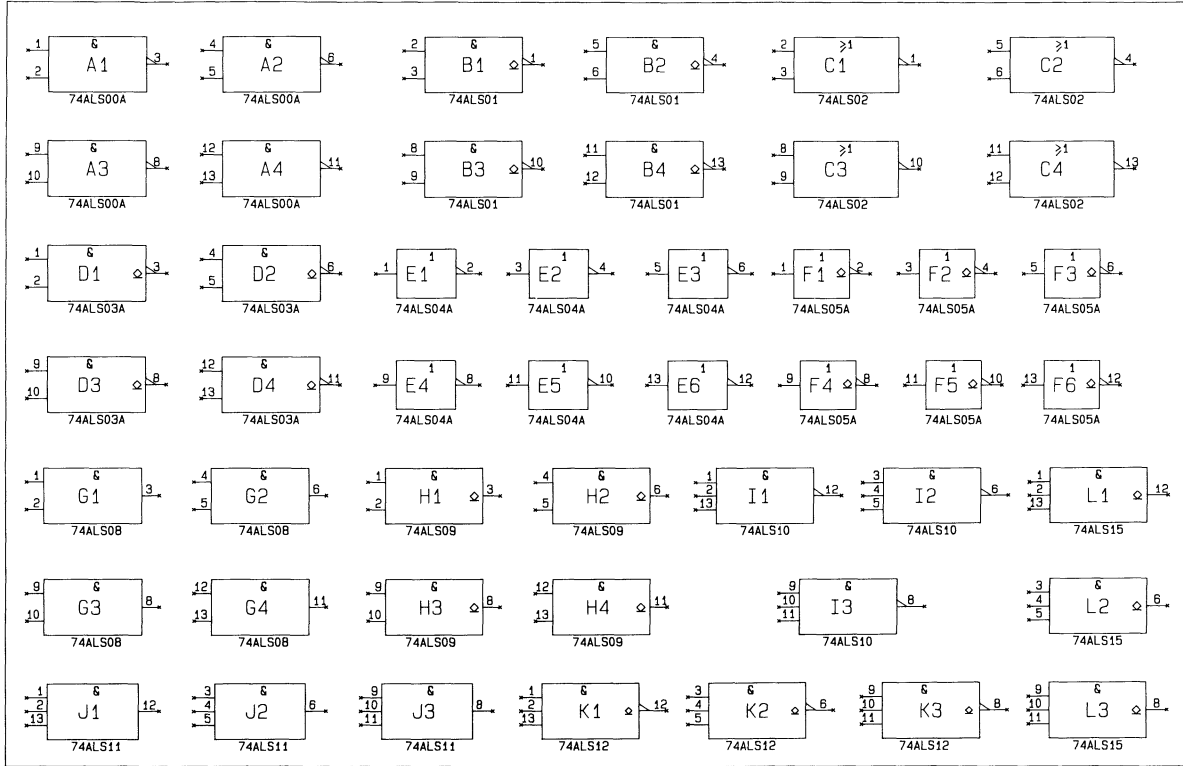
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS18



ALS18

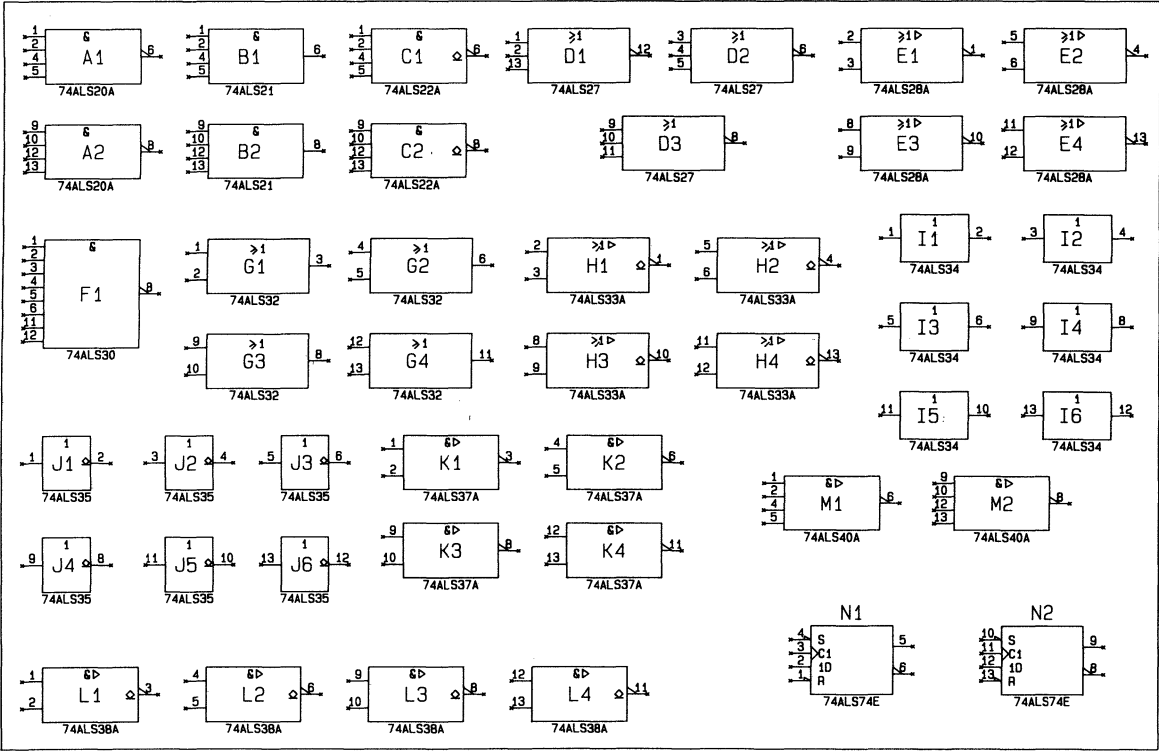
000-0065-03



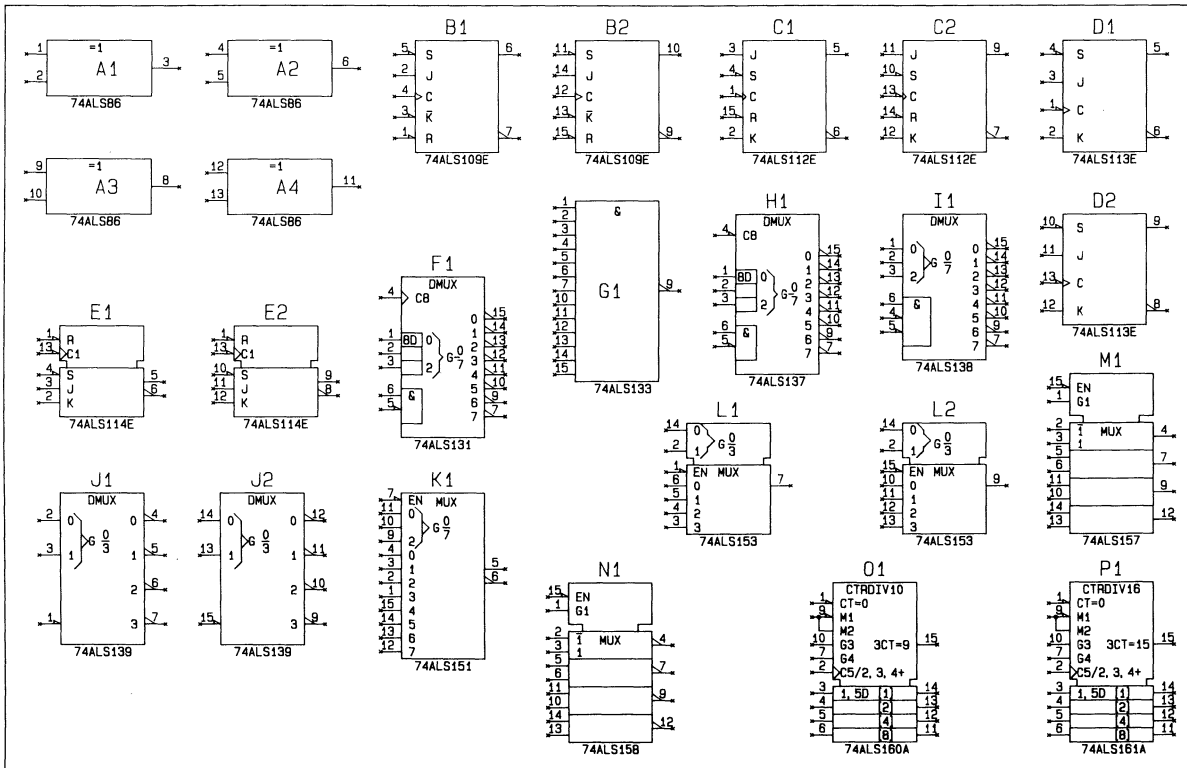
ALS1A

ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS2E



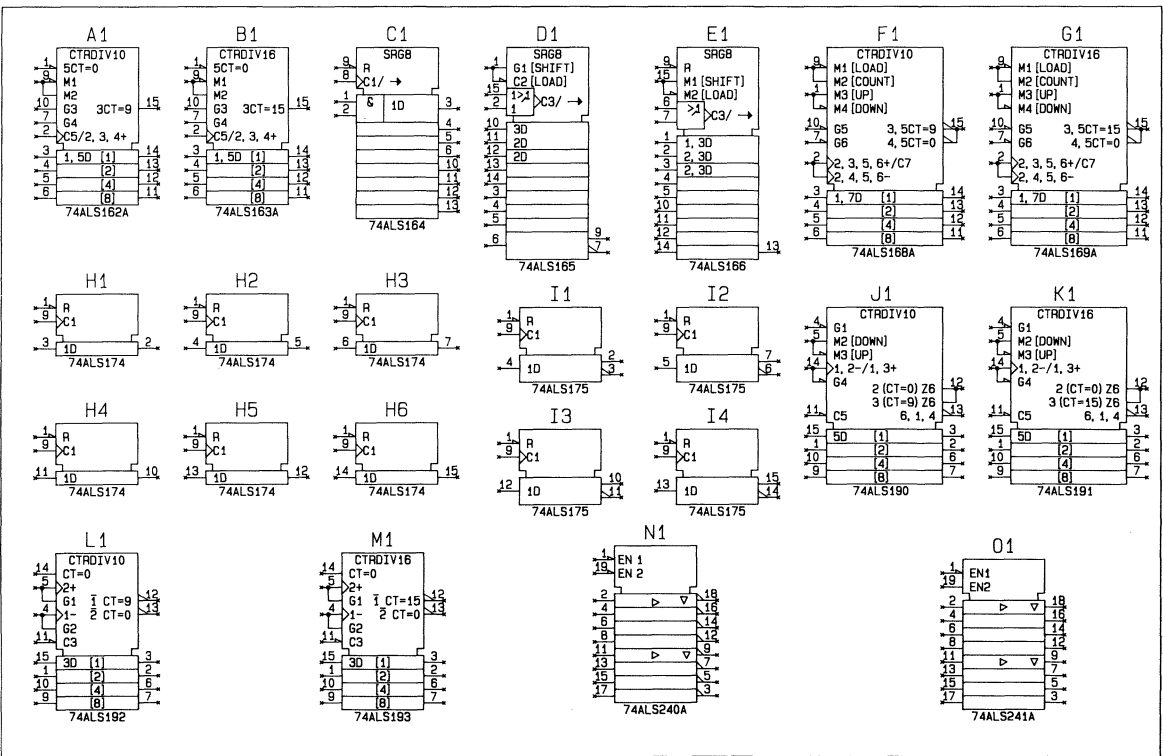
000-0065-03



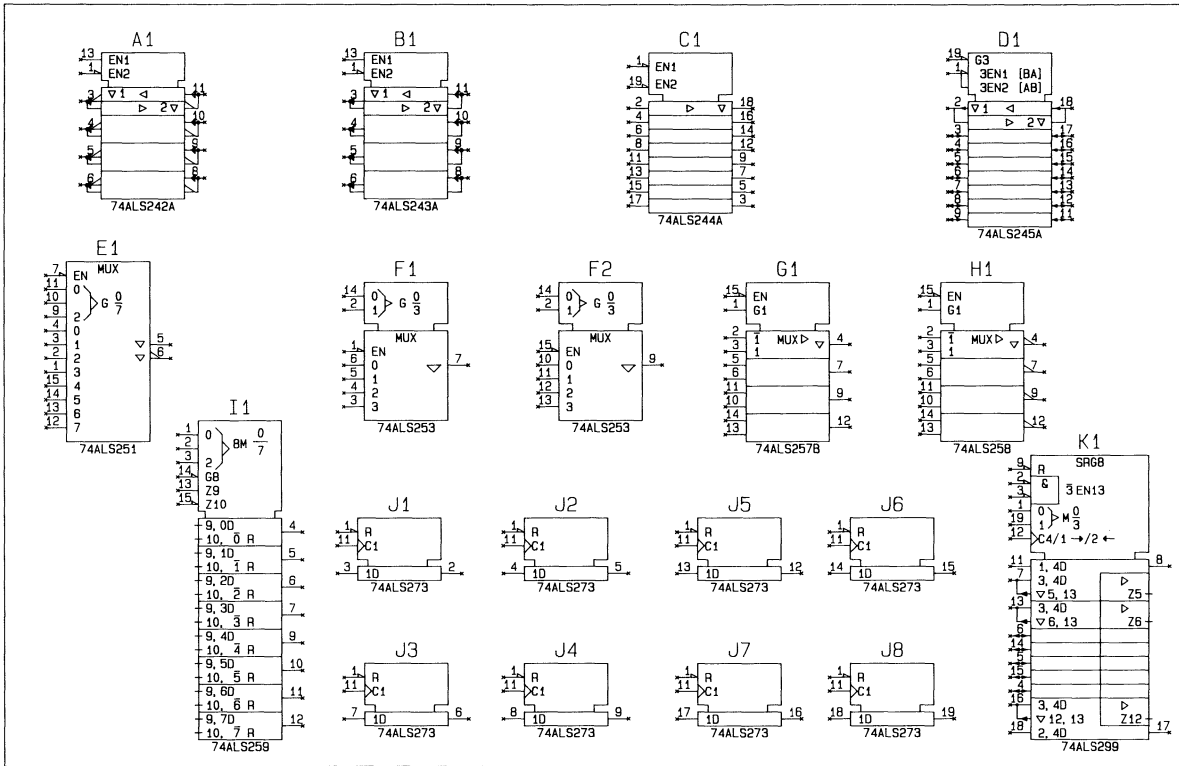
ALS3A

ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS4E



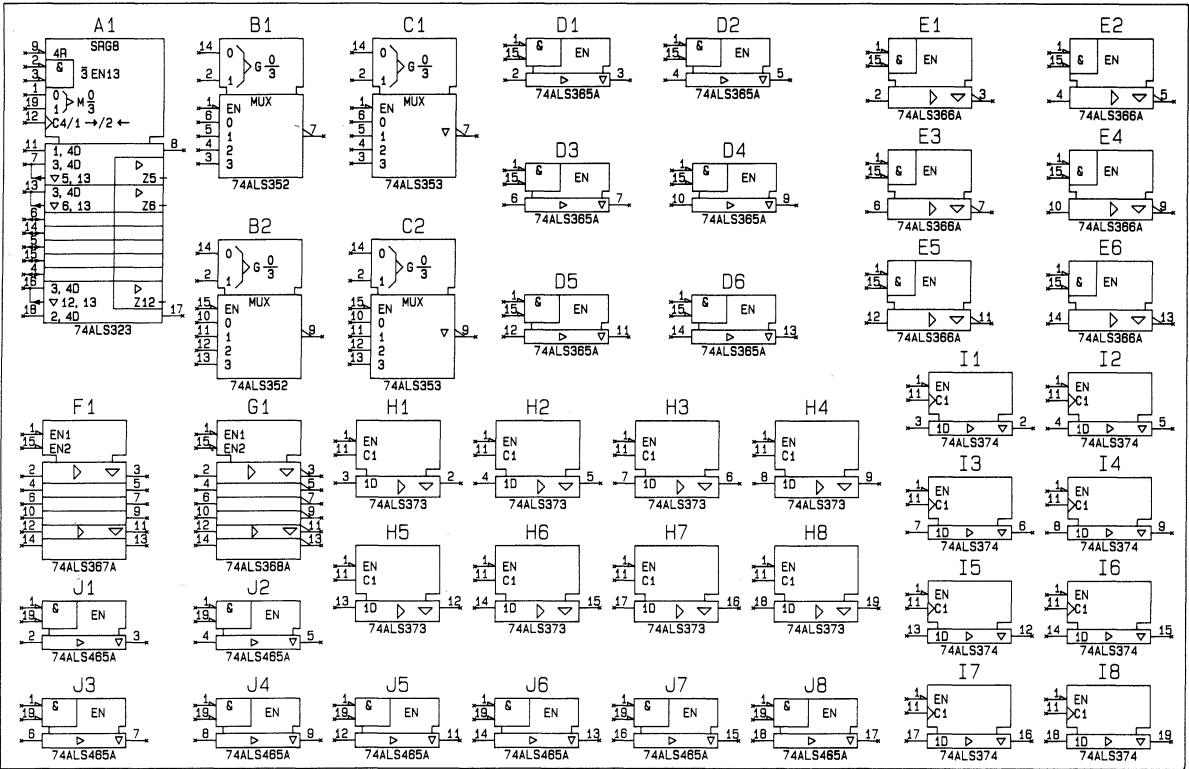
ALS4A



ALS5A

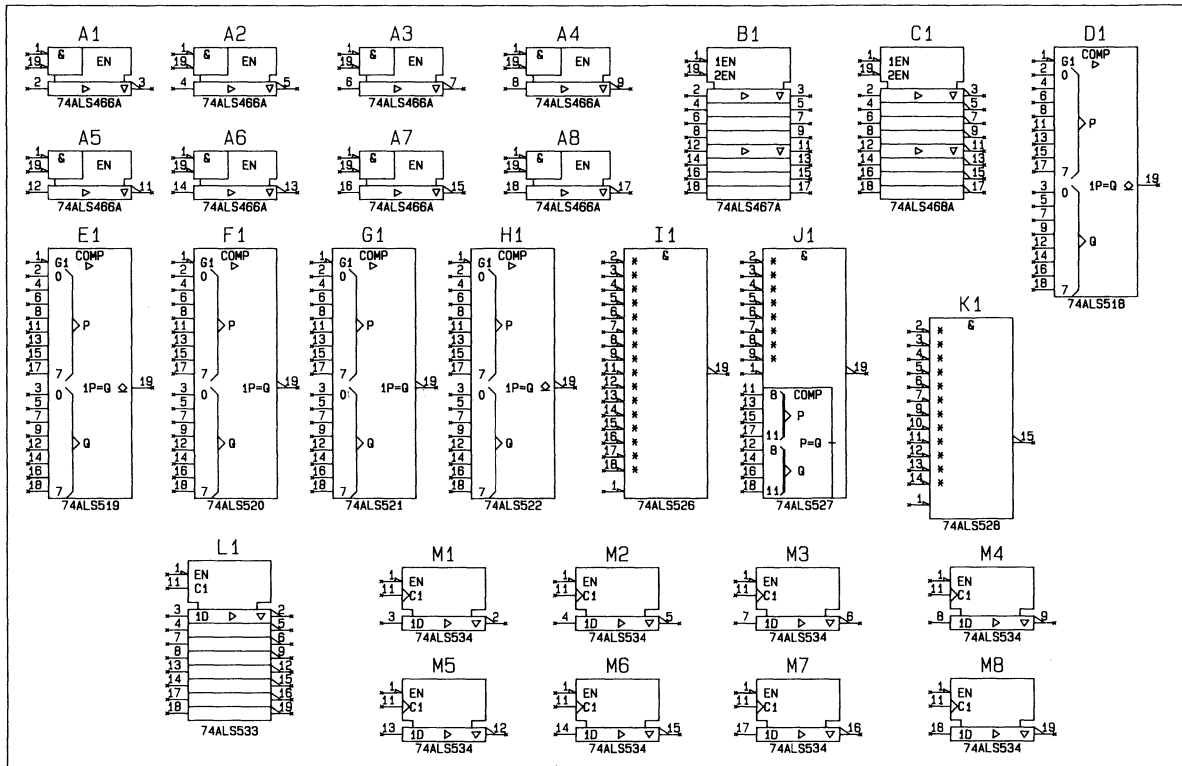
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS6E



ALS6A

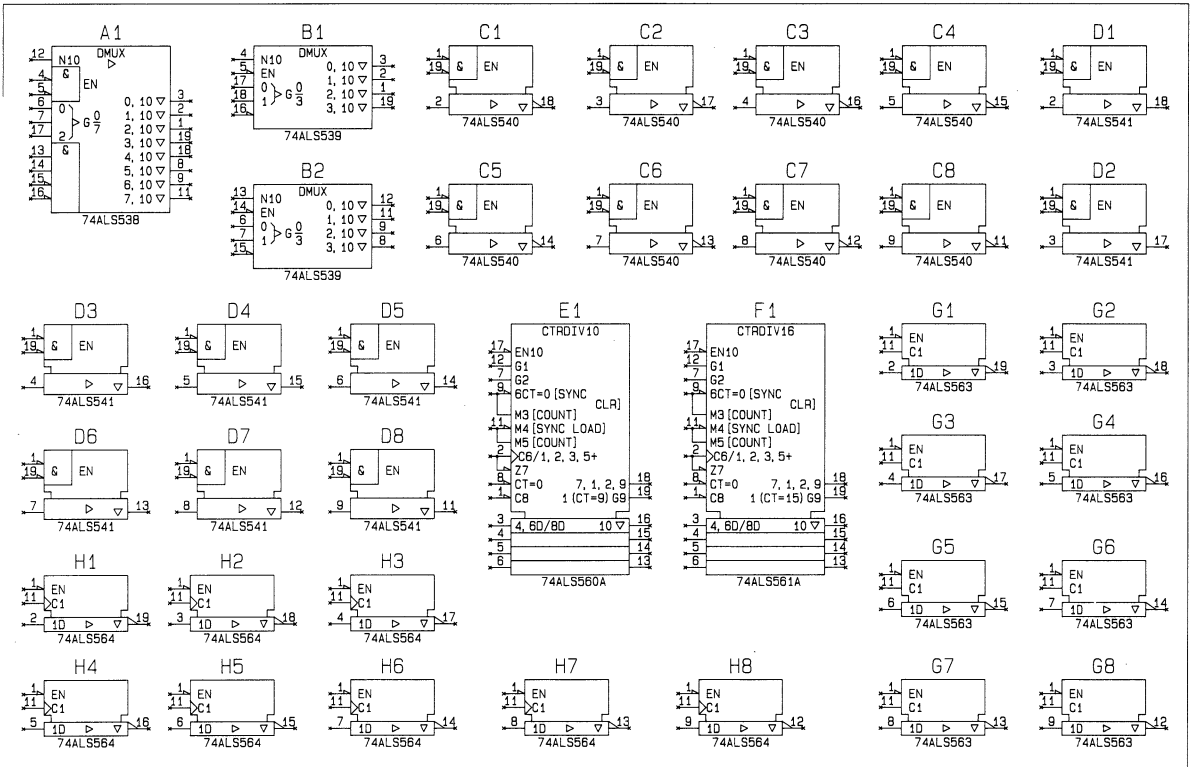
000-0065-03



ALS7A

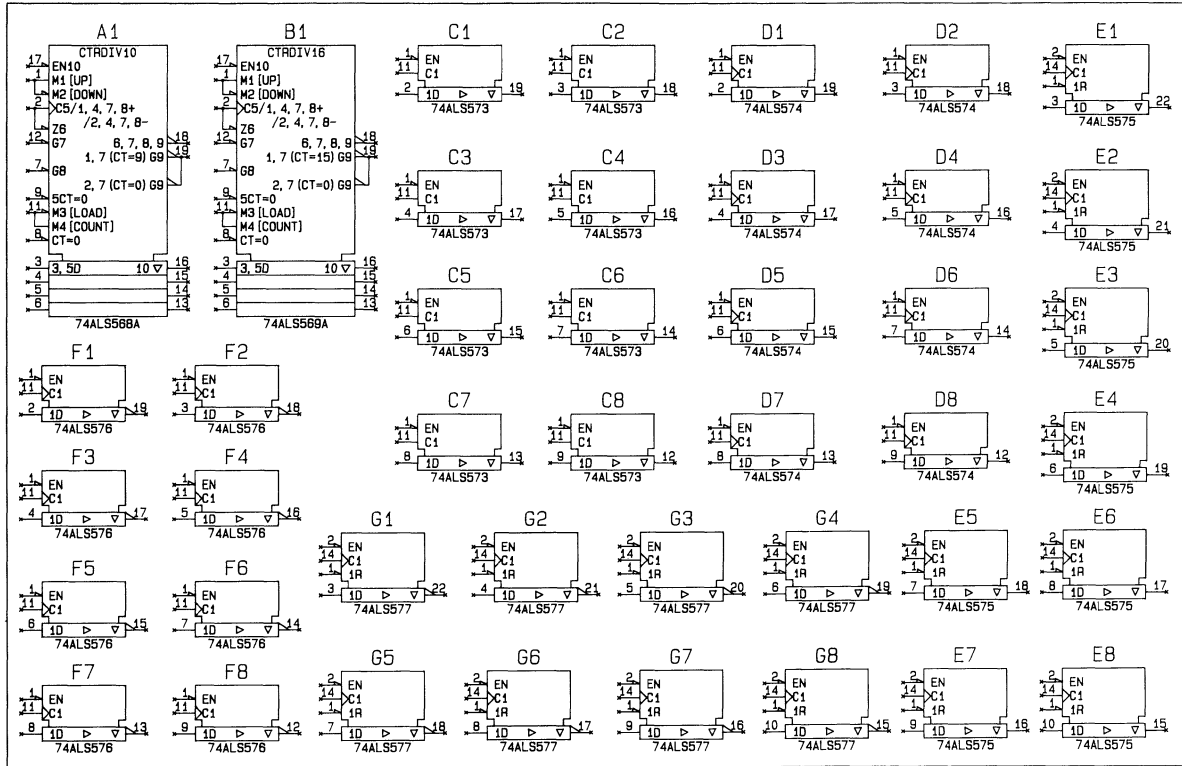
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS8E

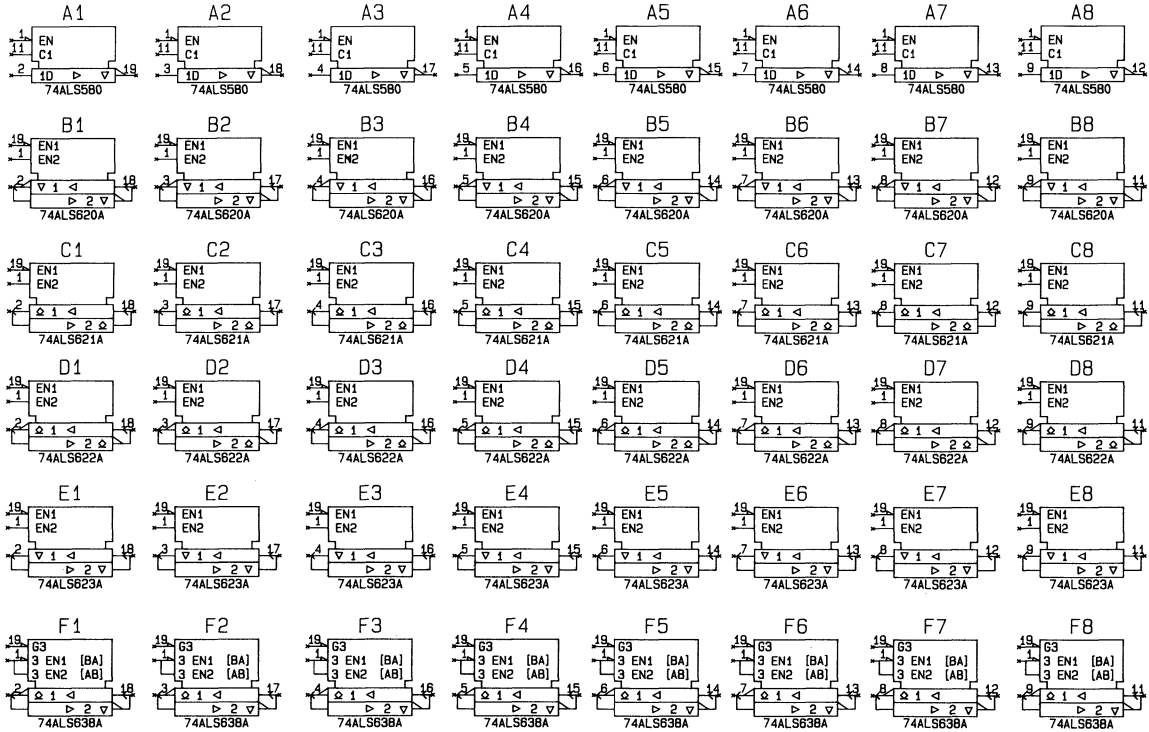


ALS8A

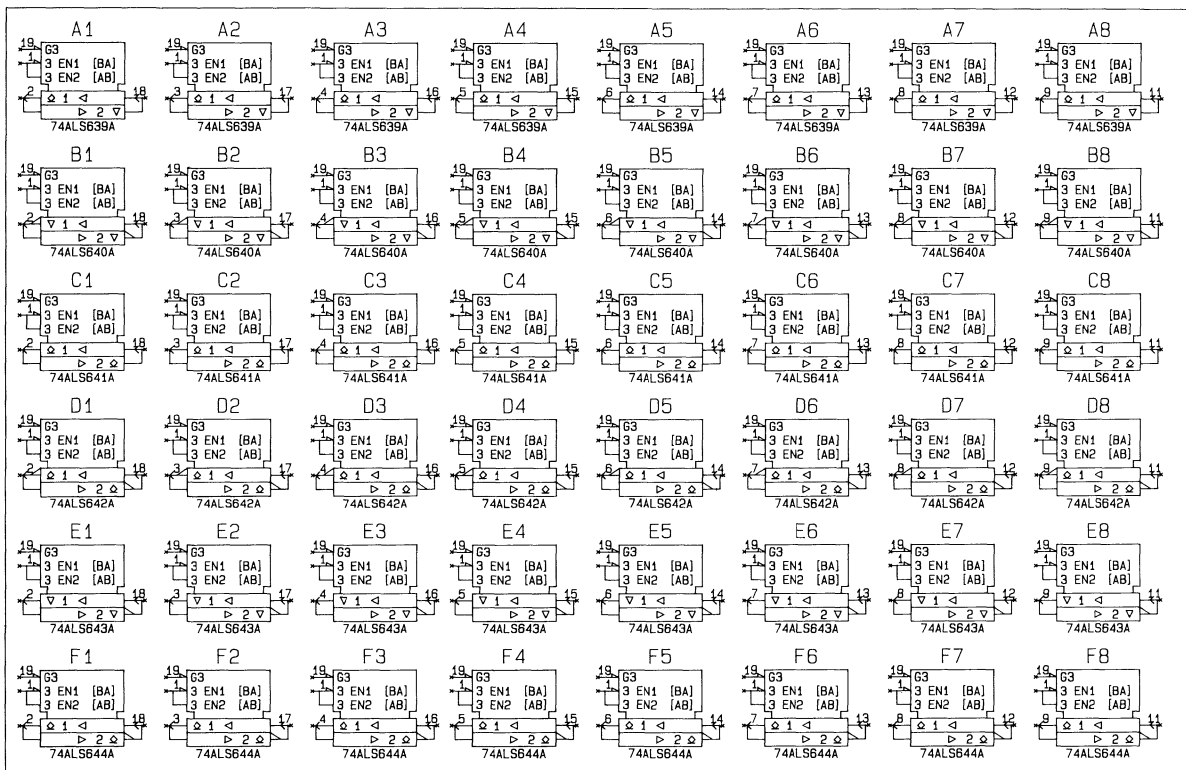
000-0065-03



ALS9A



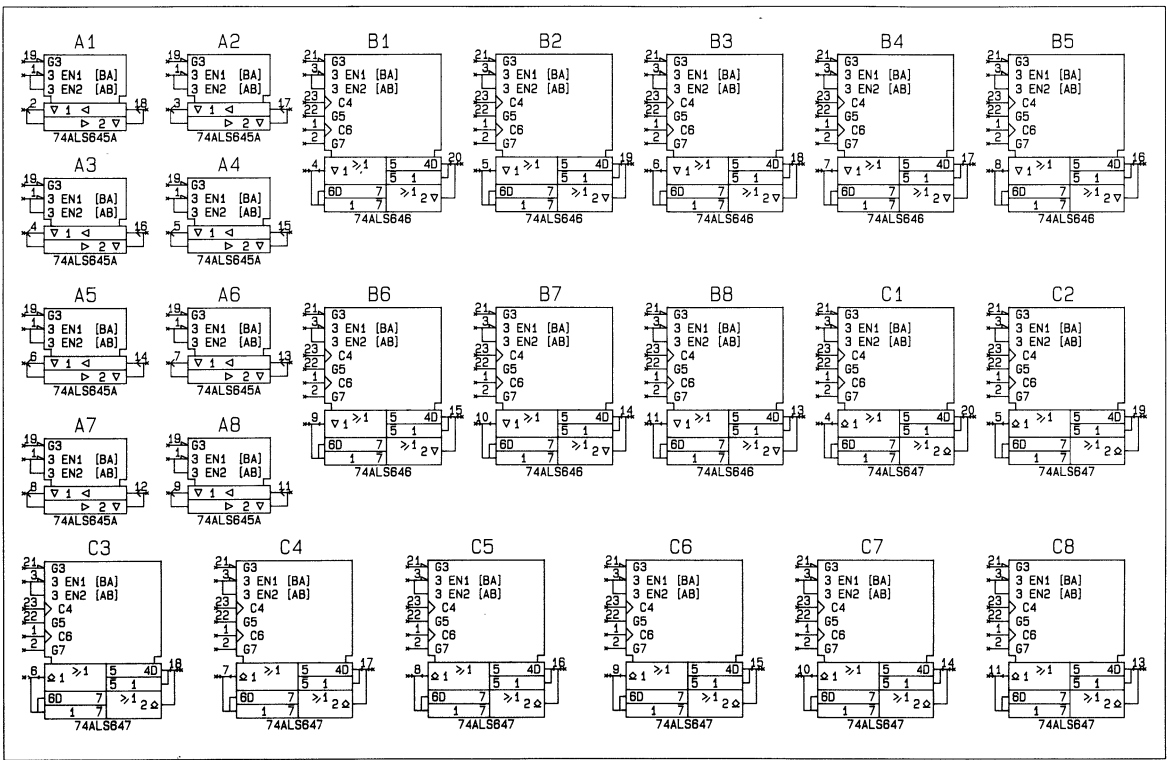
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS



ALS11A

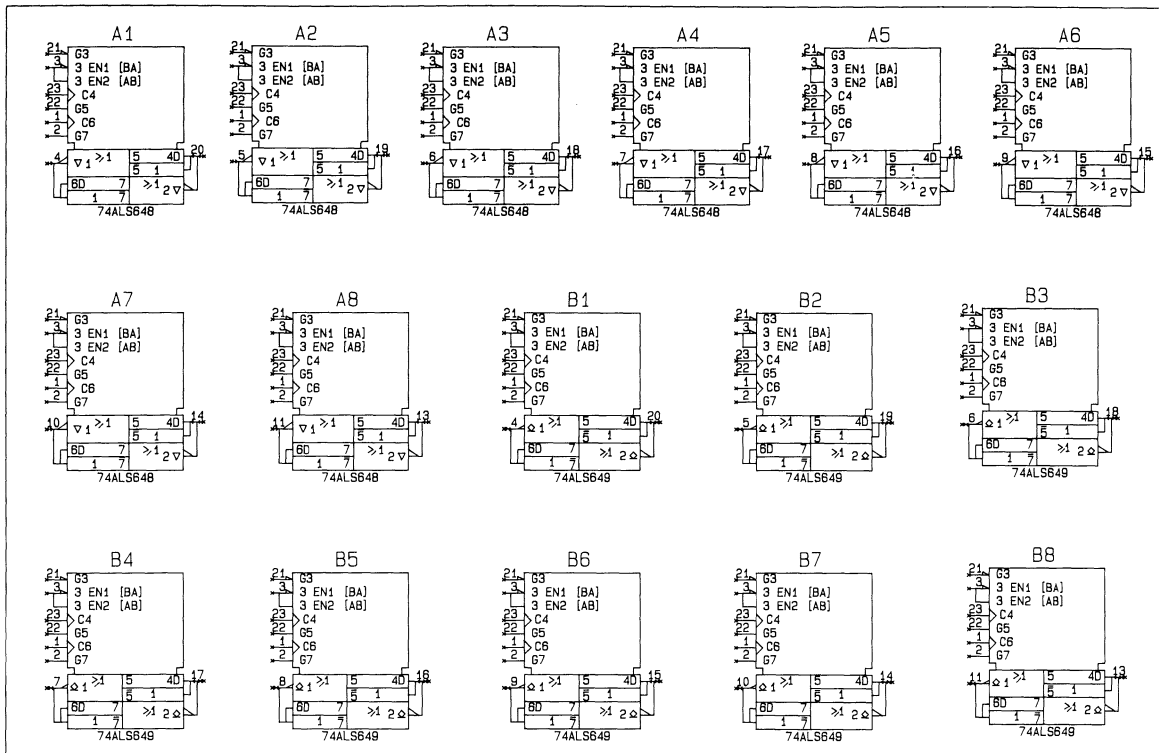
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS12E



ALS12A

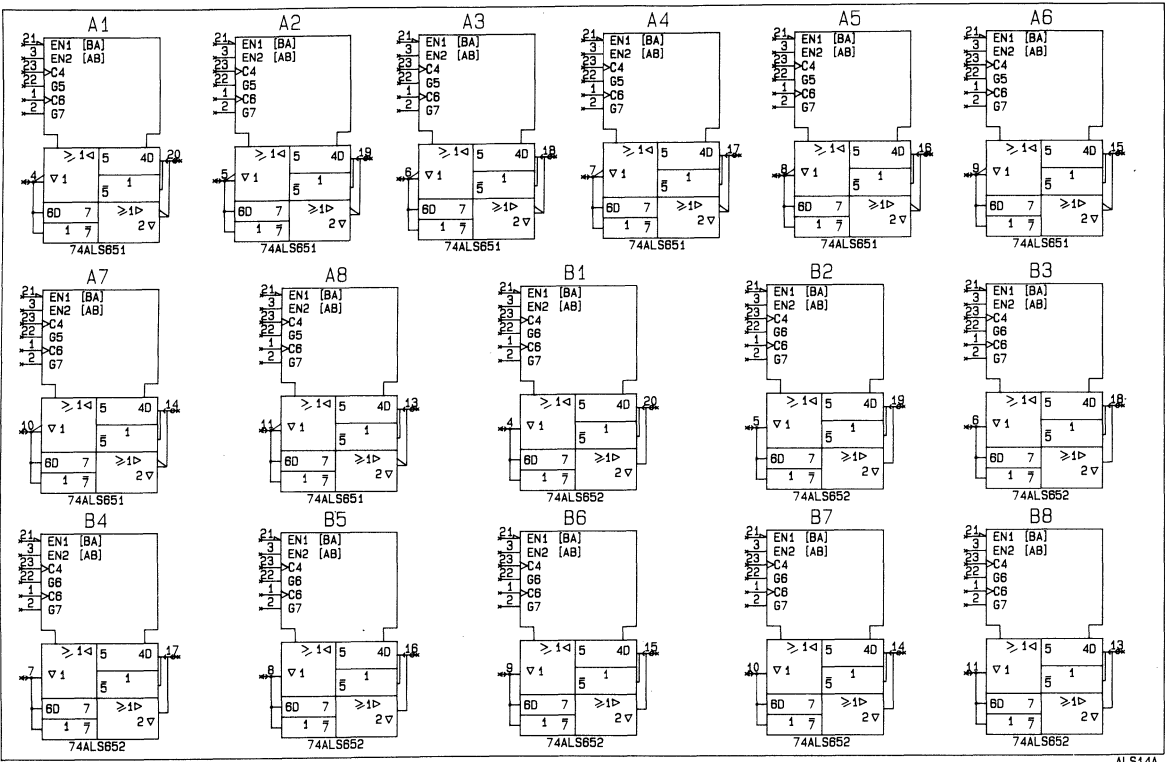
000-0065-03



ALS13A

ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

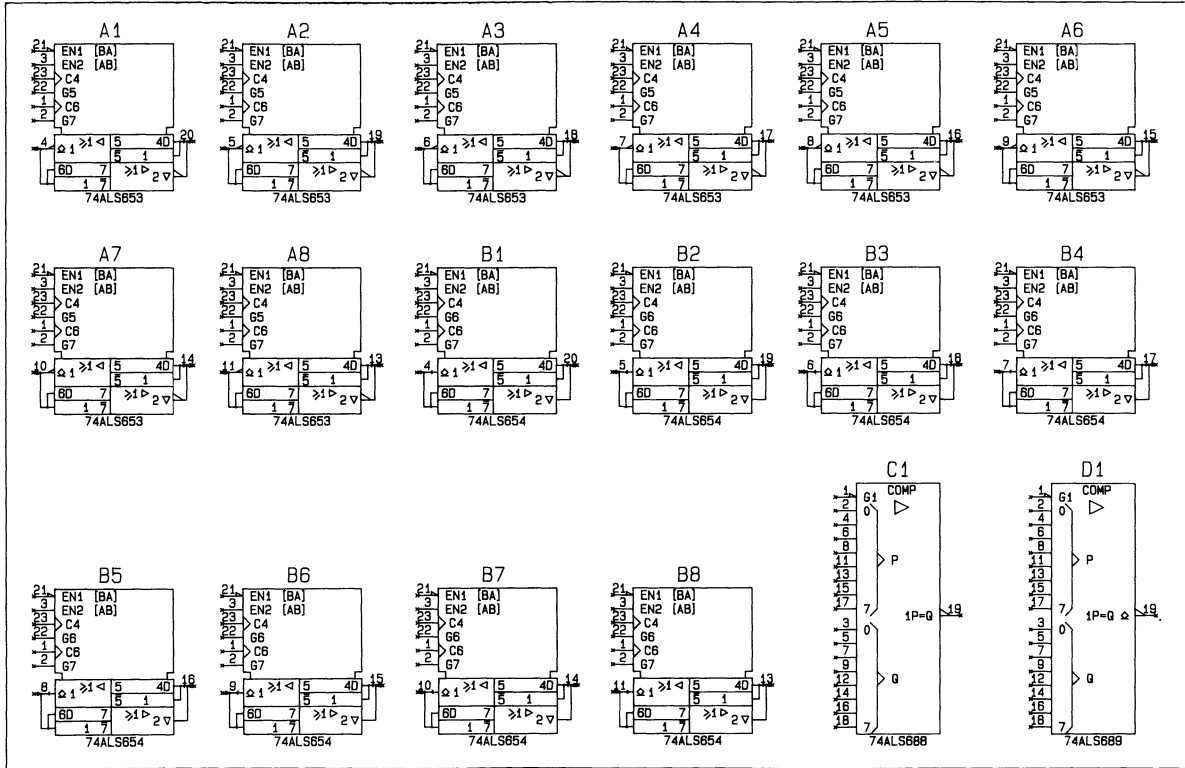
PLOT ALS14E



ALS14A

000-0065-03

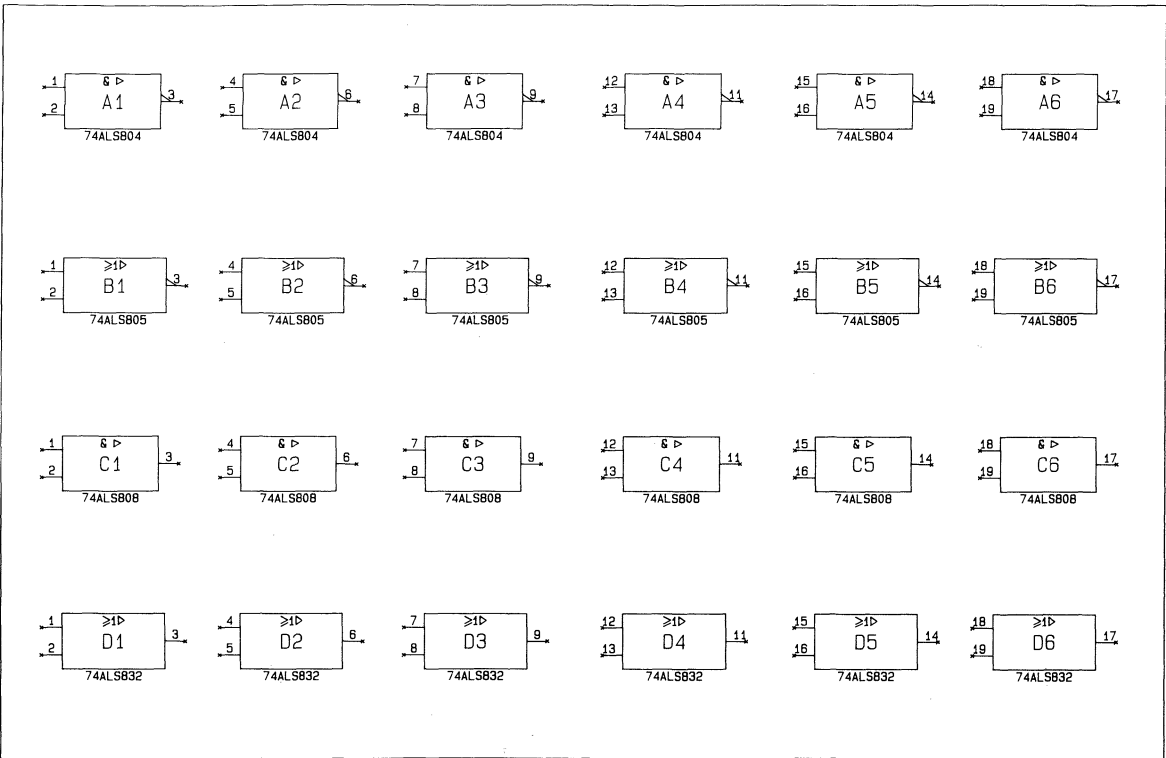
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS



ALS15A

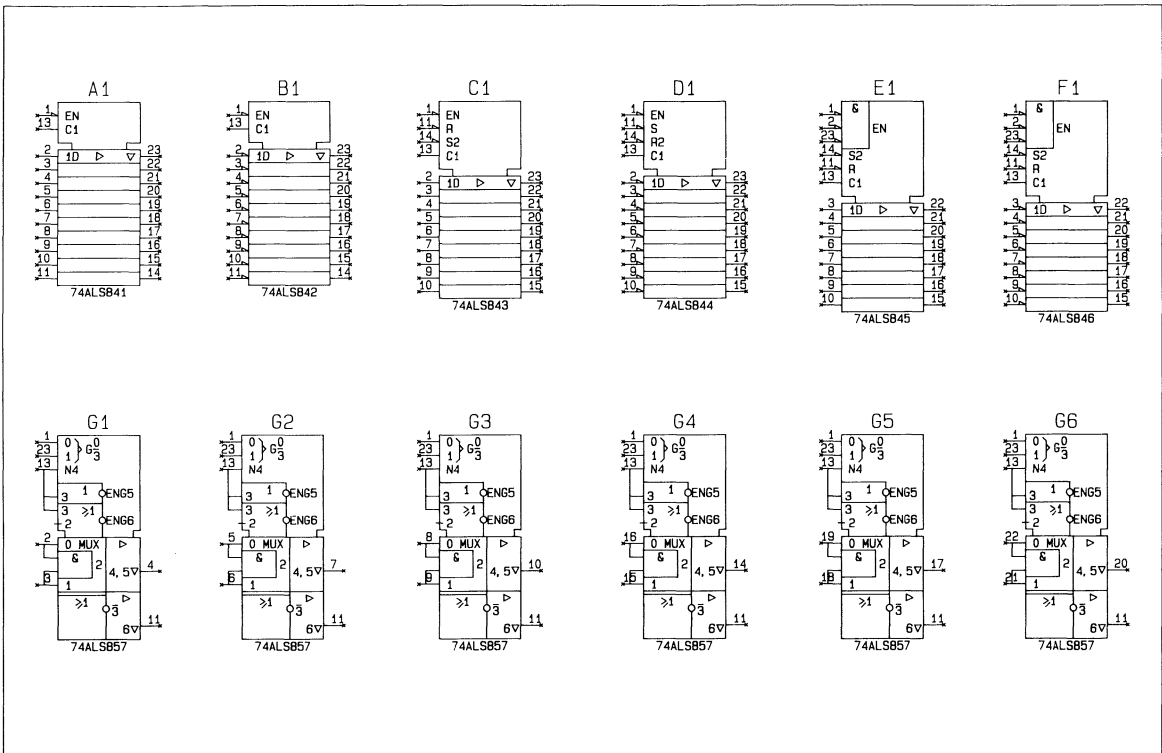
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT AL16E



ALS16A

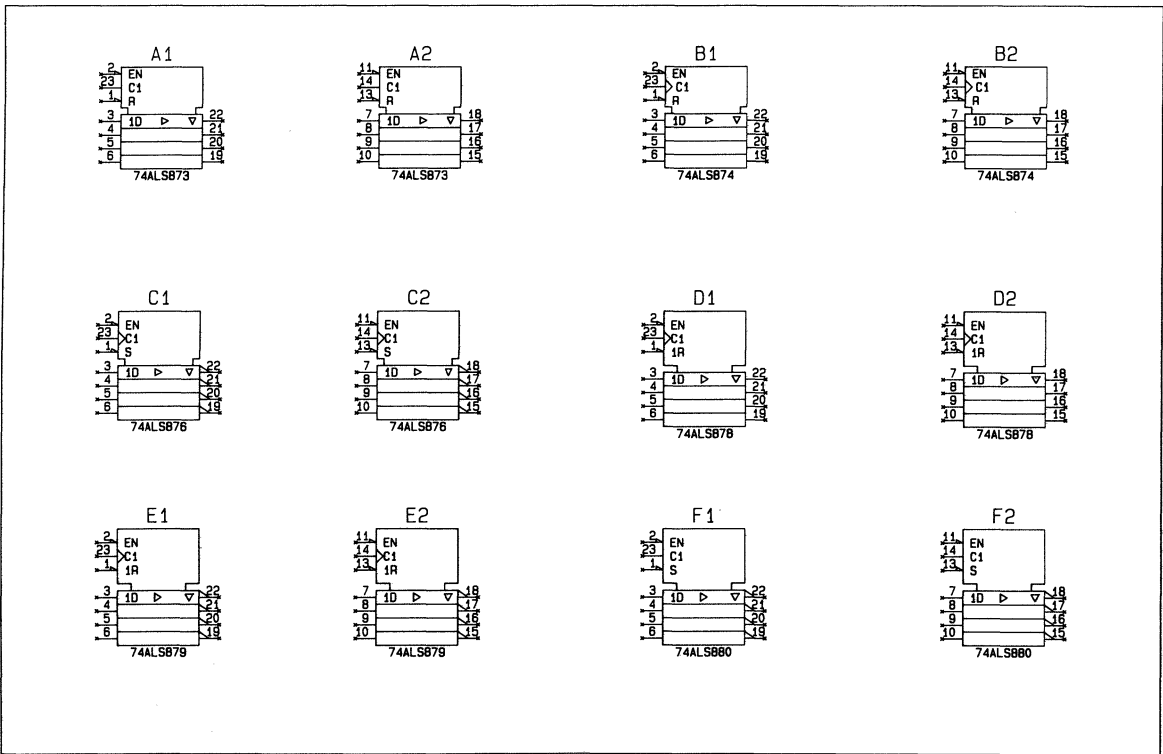
000-0065-03



ALS174

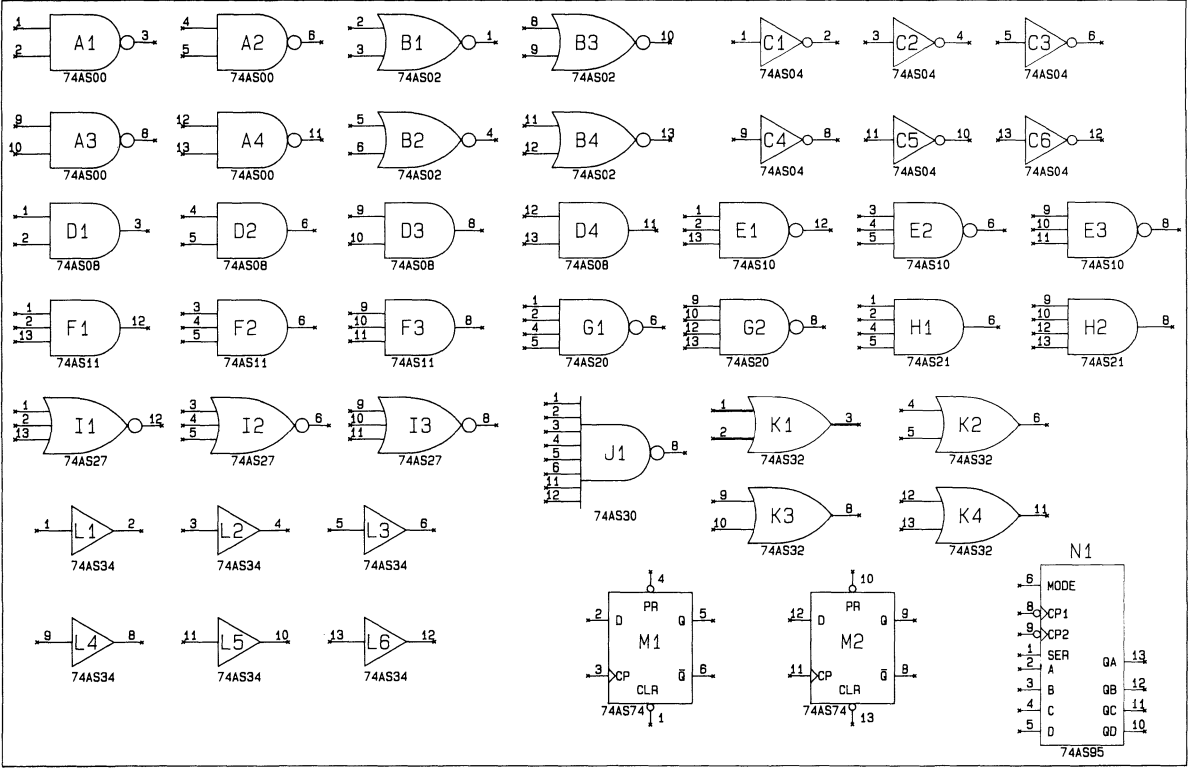
ADVANCED LOW POWER SCHOTTKY COMPONENT
SYMBOL PLOTS

PLOT ALS18E



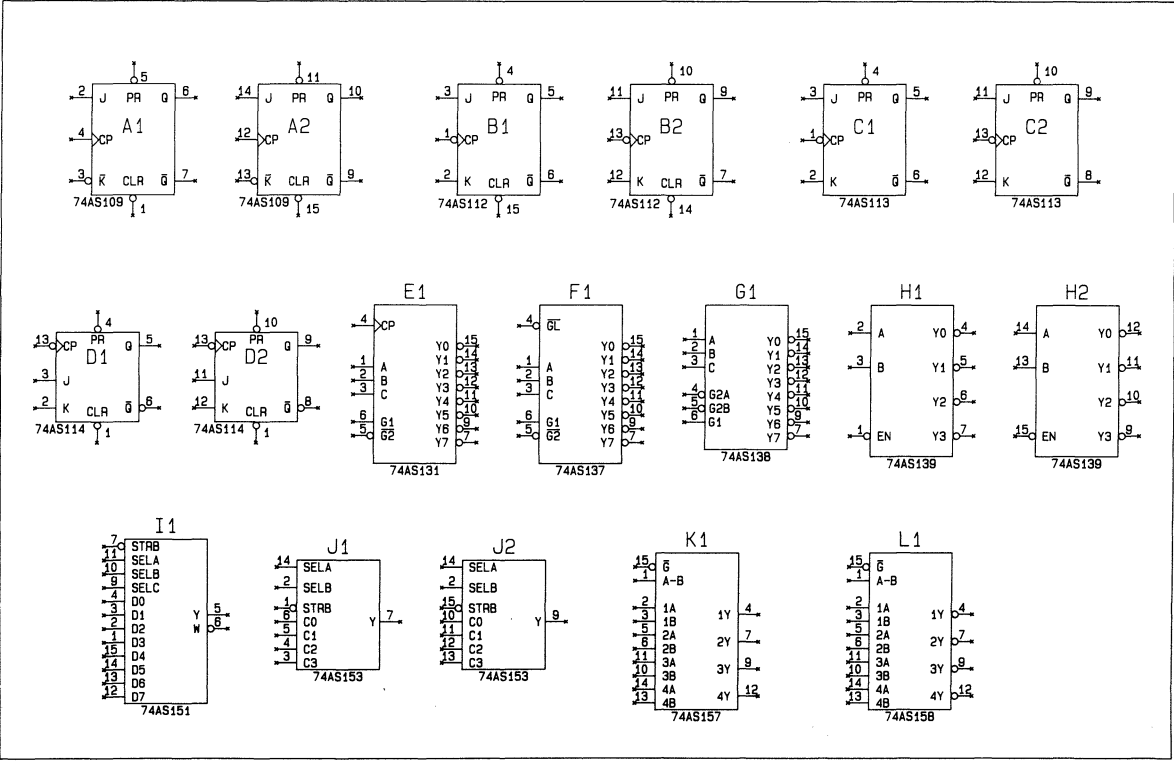
ALS18A

000-0065-03



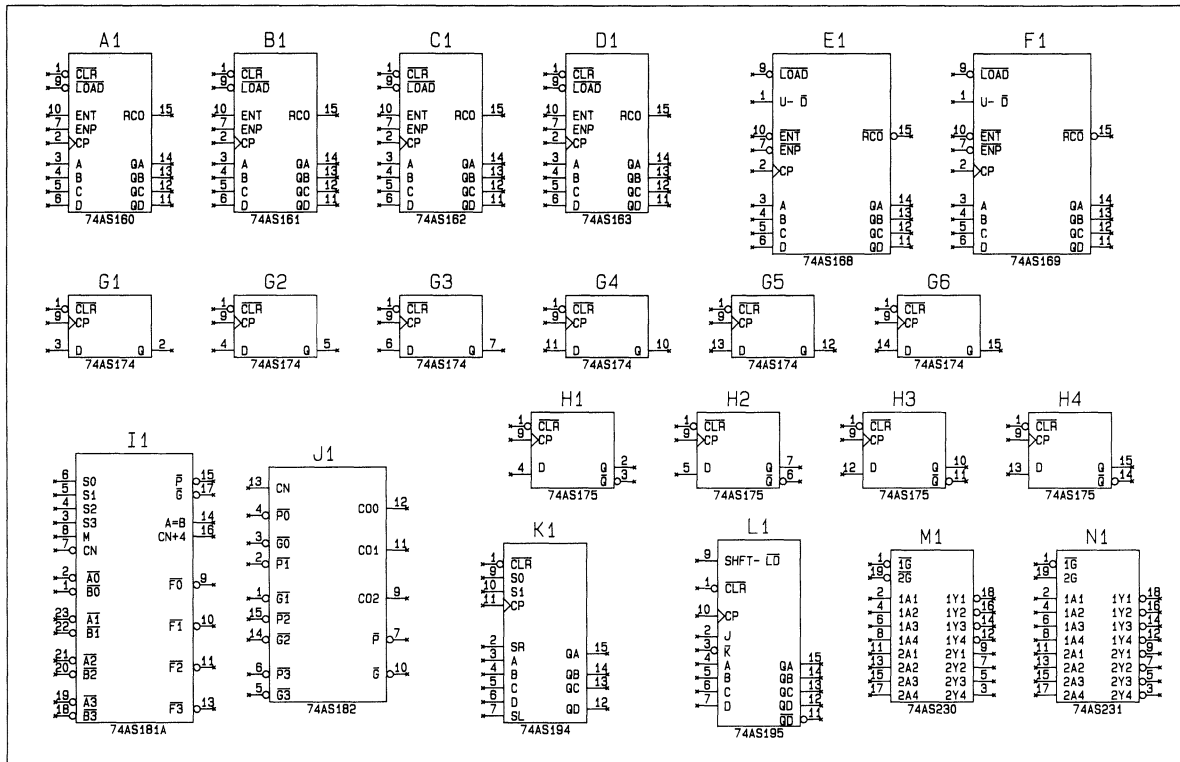
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT AS1



AS2

000-0065-03

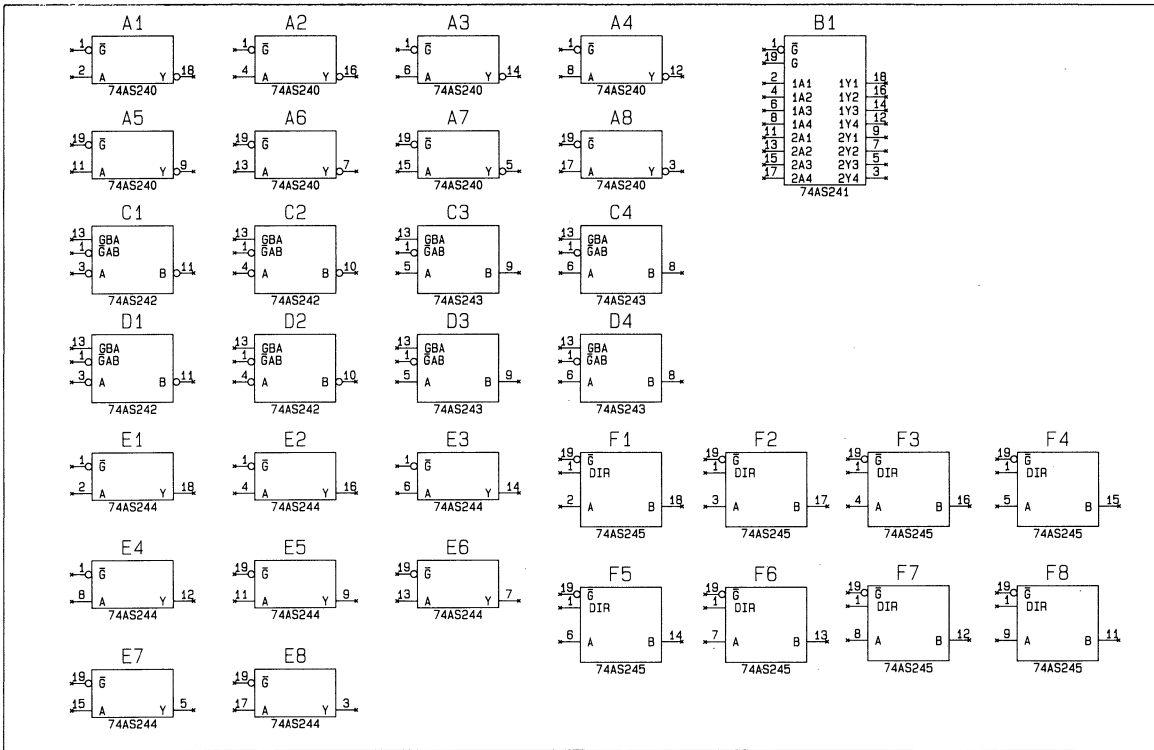


AS3

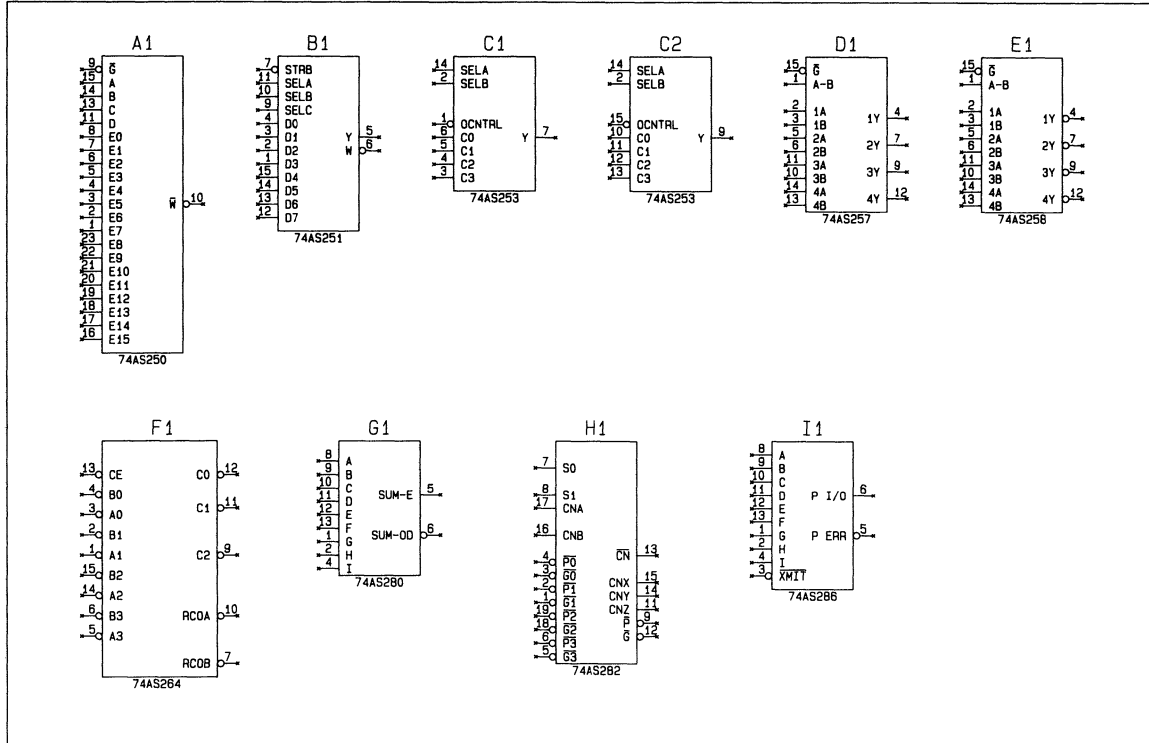
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

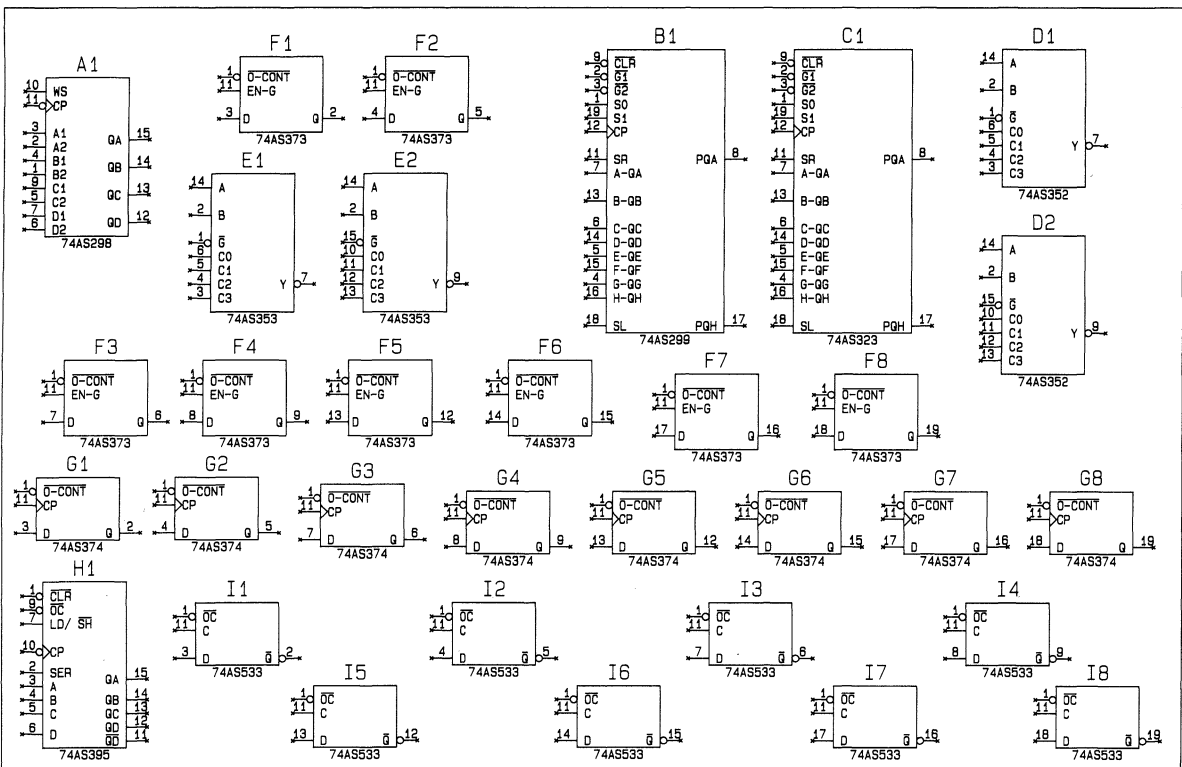
PLOT AS3

Schematic Symbols 197



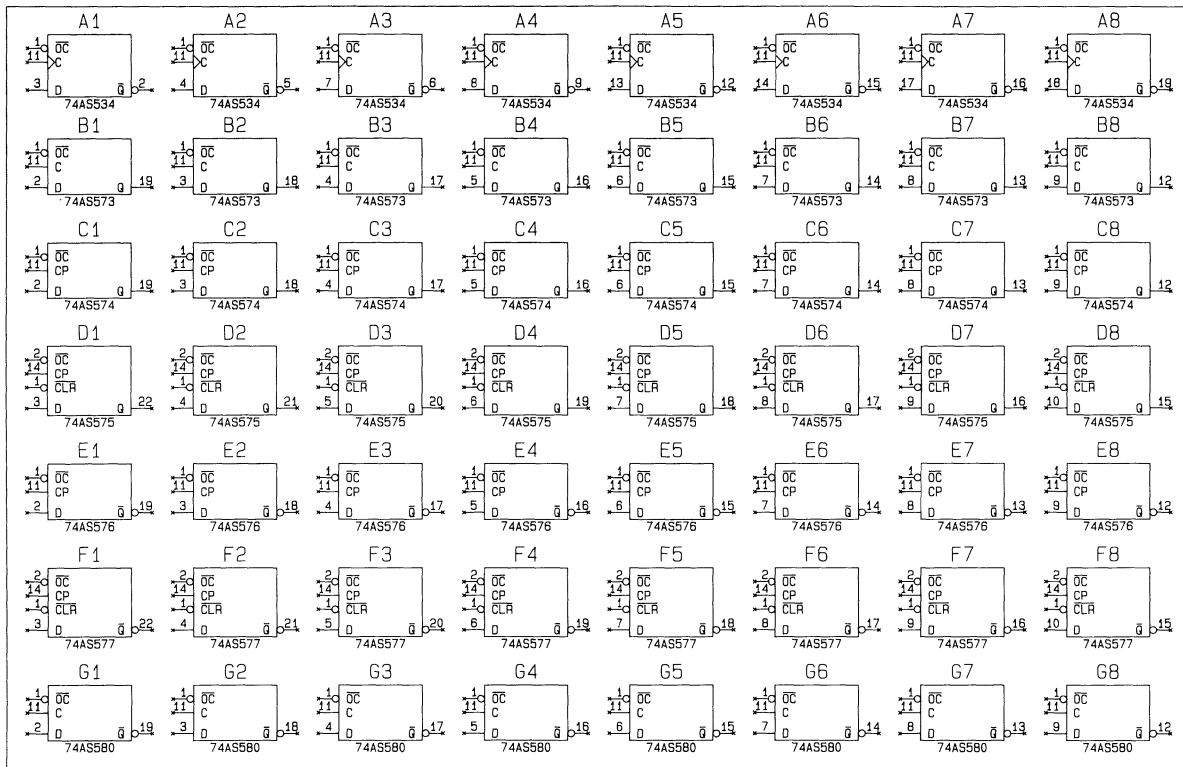
AS4





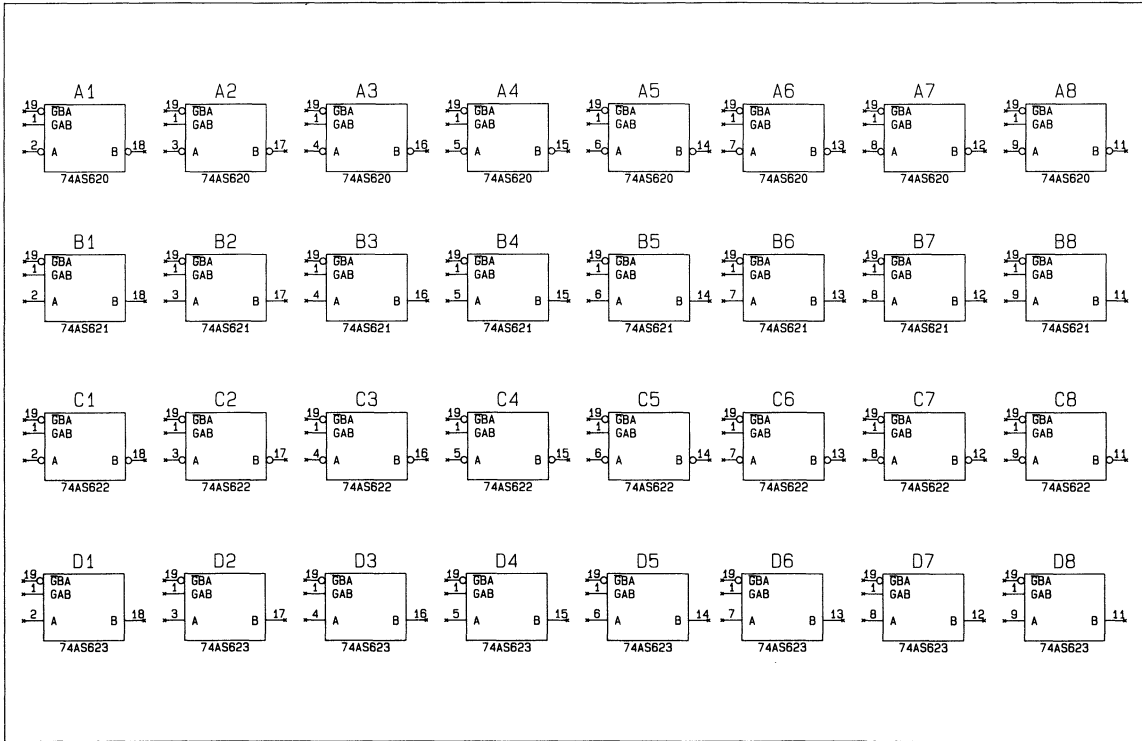
ASS

000-0065-03



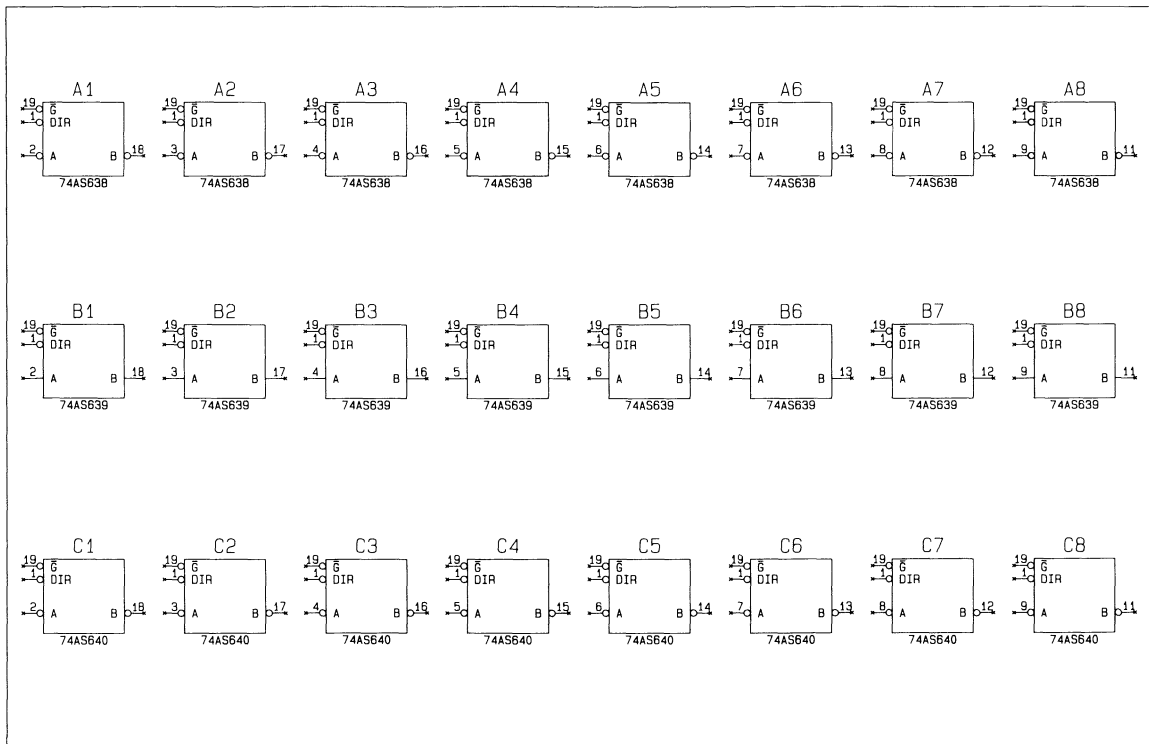
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT AS8



AS7

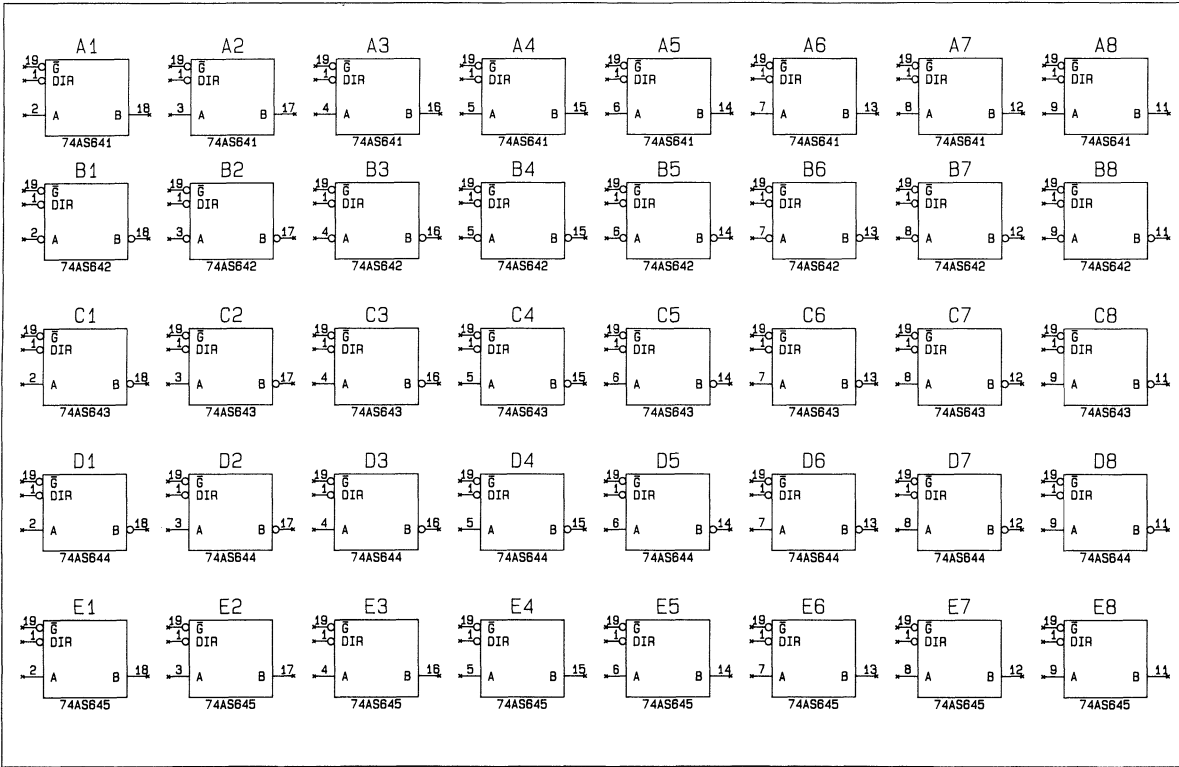
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ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

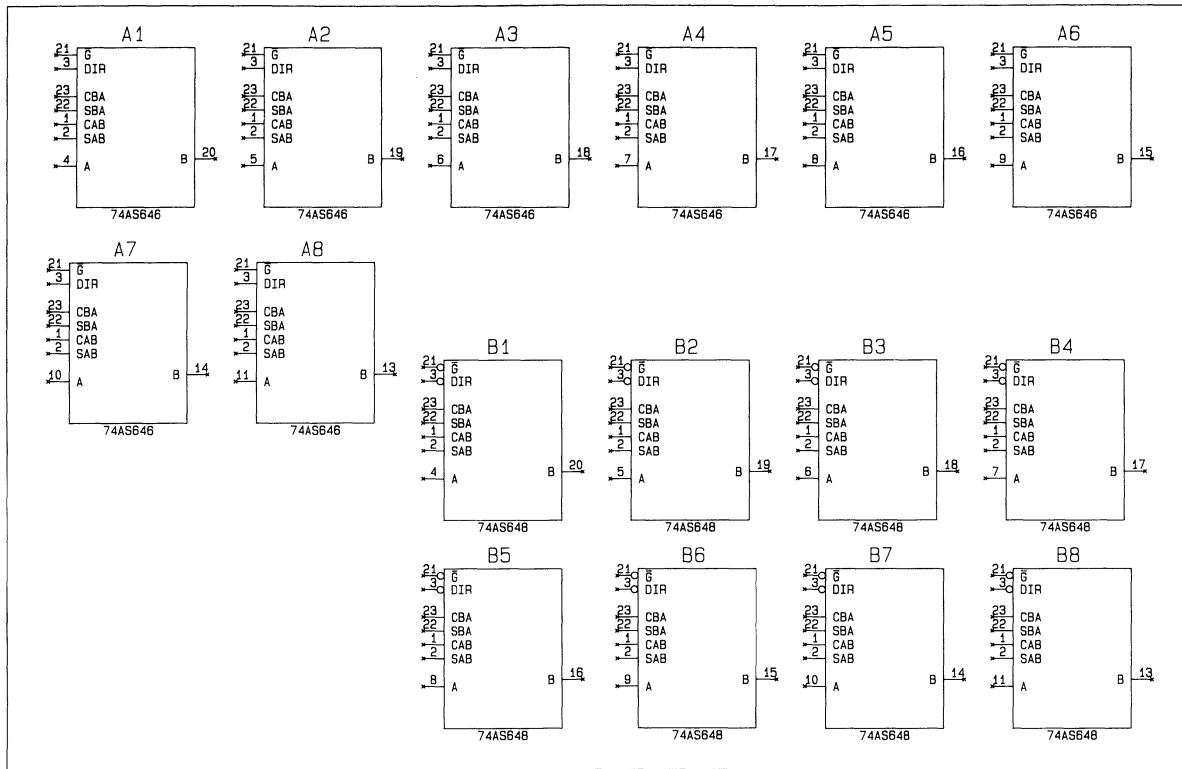
PLOT ASS

AS7X



ASB

000-0065-03



ASG

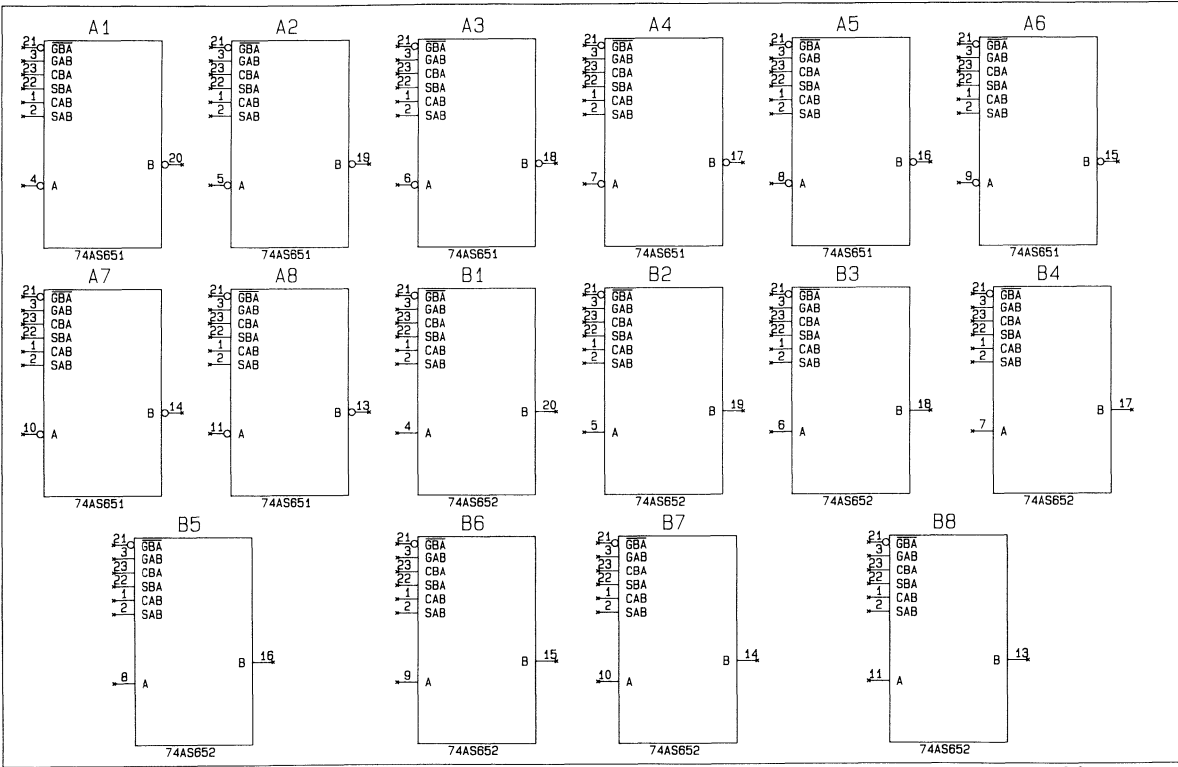
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT AS11

Schematic Symbols 205

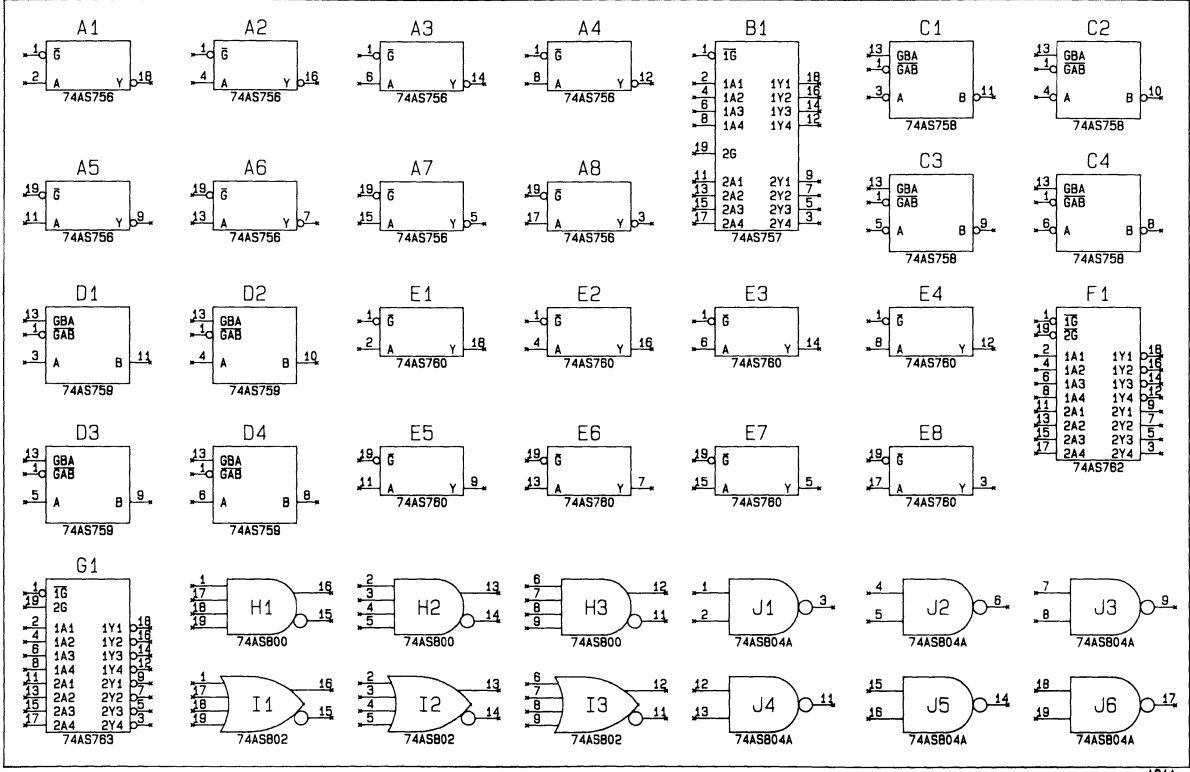
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT AS12



AS10

000-0065-03



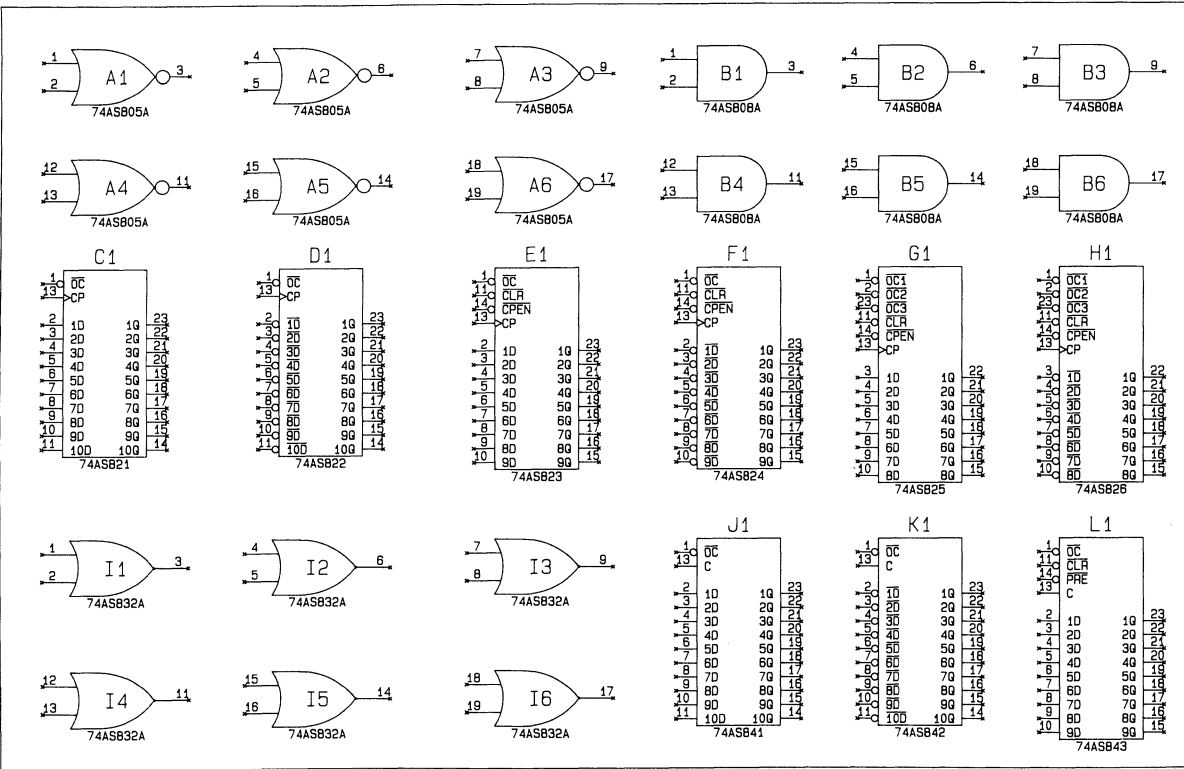
AS11

ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT AS13

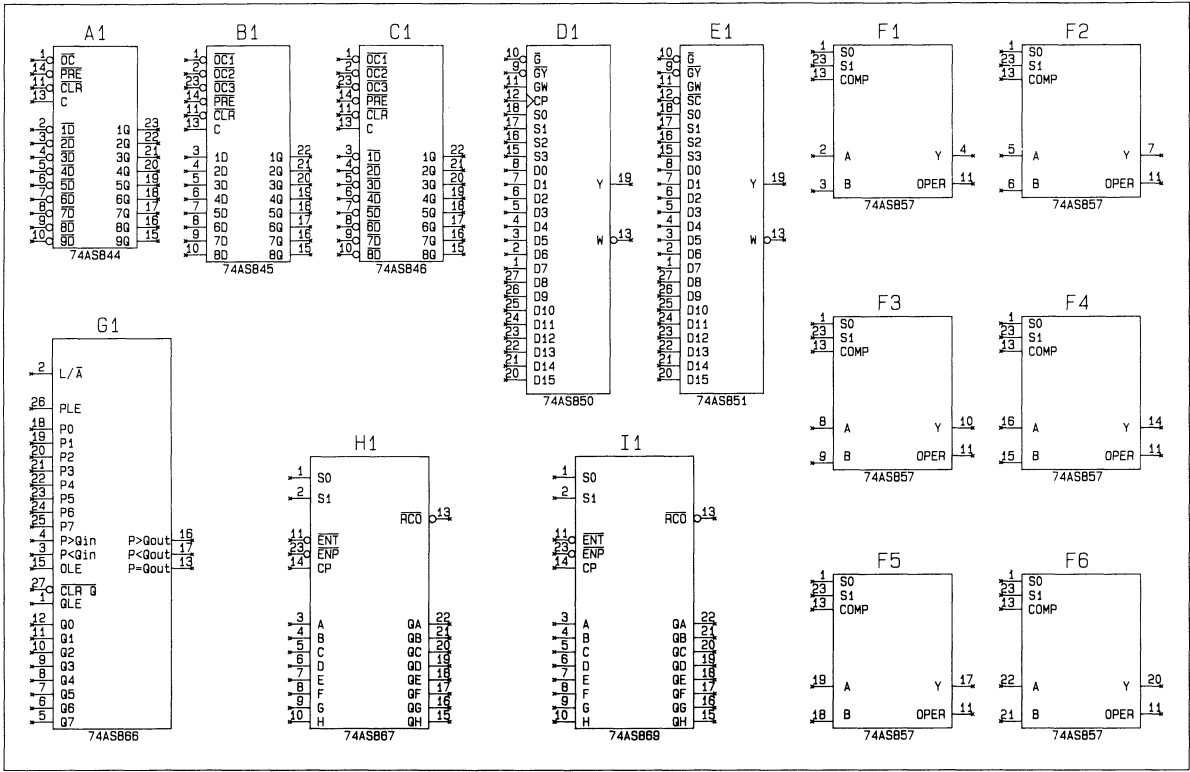
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT AS14



000-0065-03

AS12



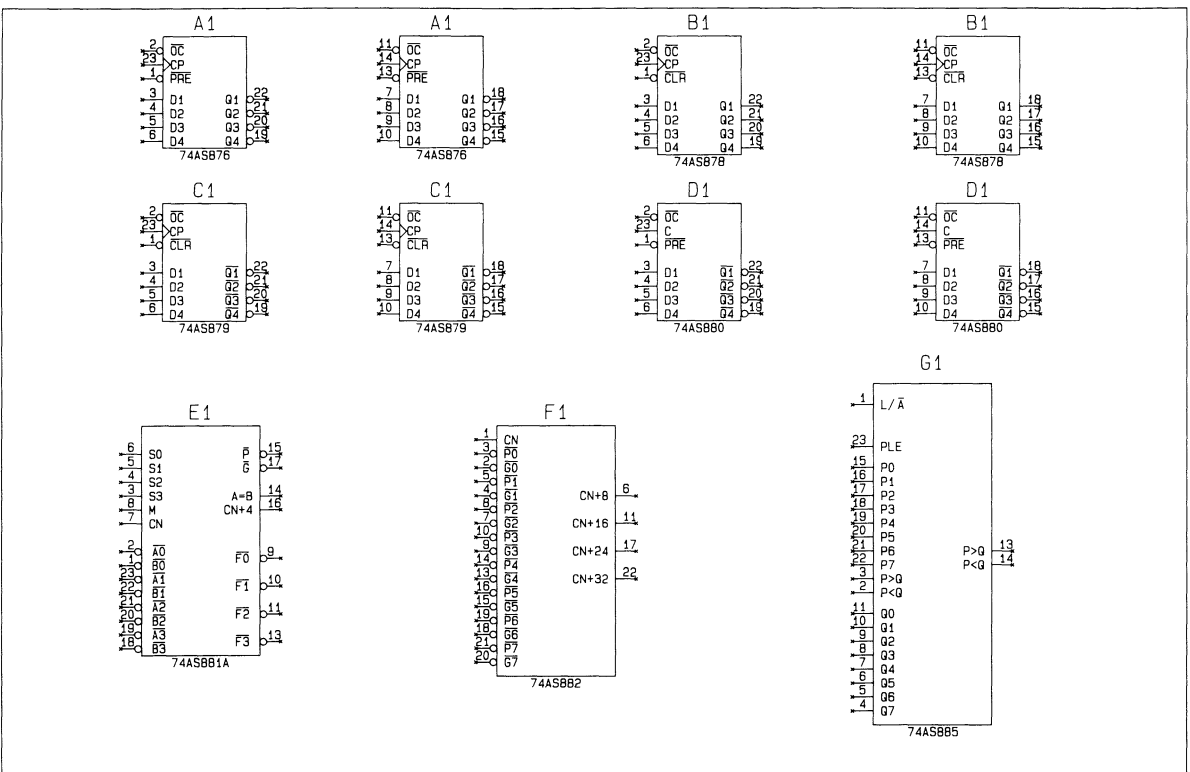
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

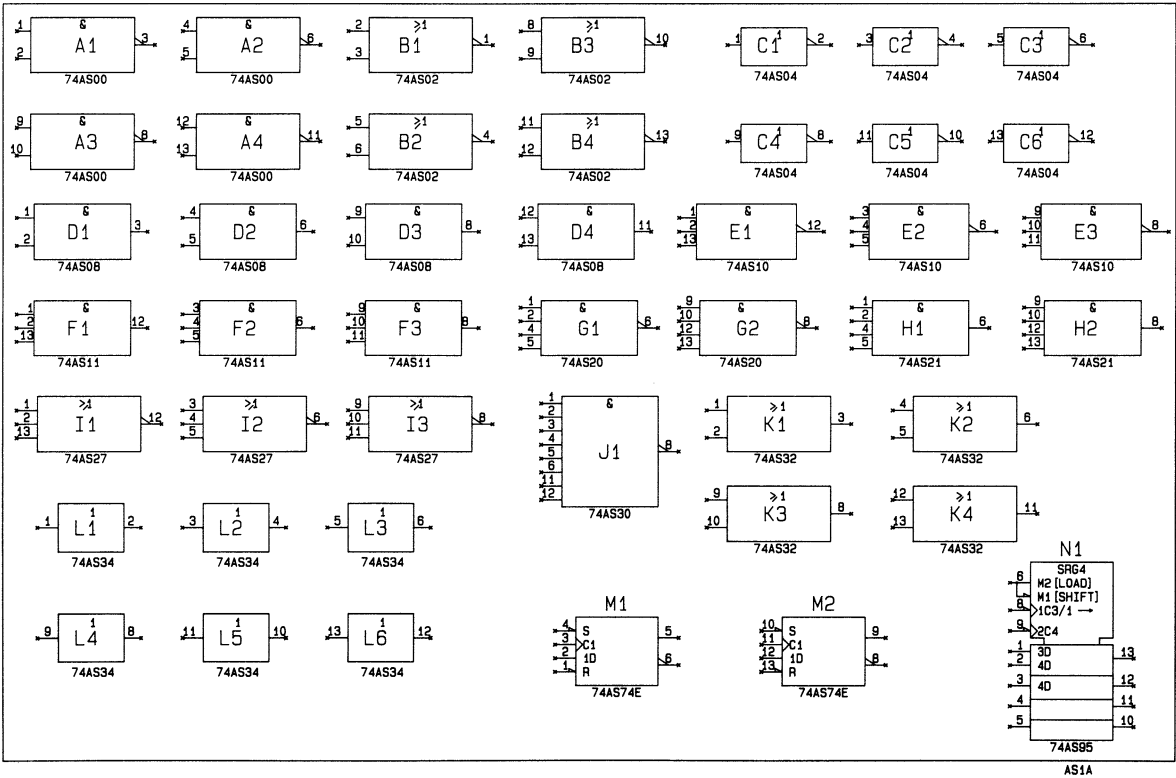
PLOT AS15

Schematic Symbols 209

ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

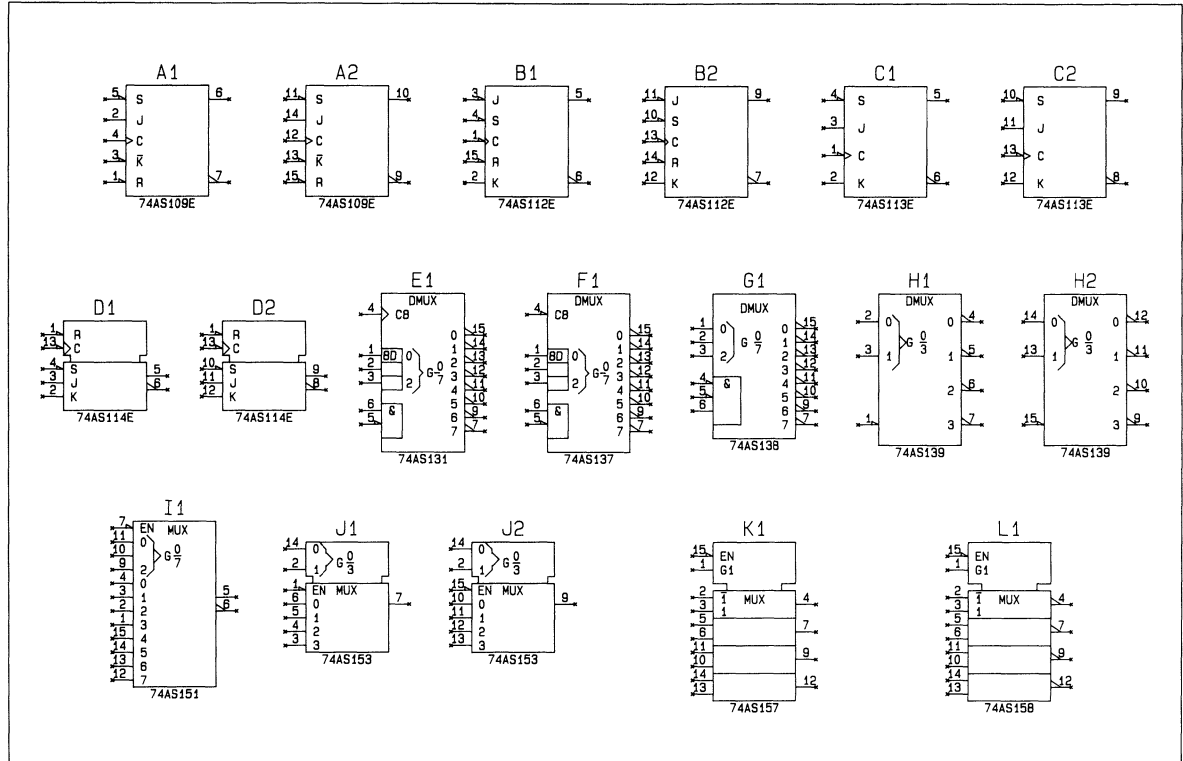
PLOT AS17



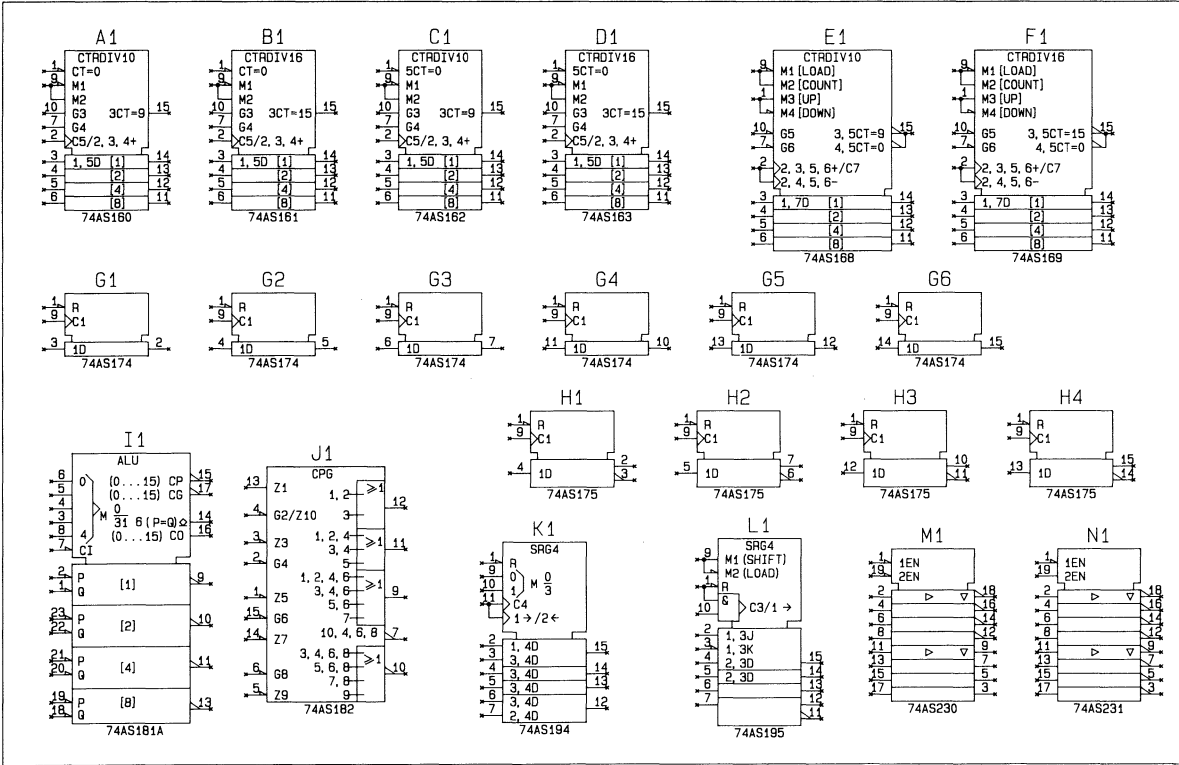


000-0065-03

AS1A

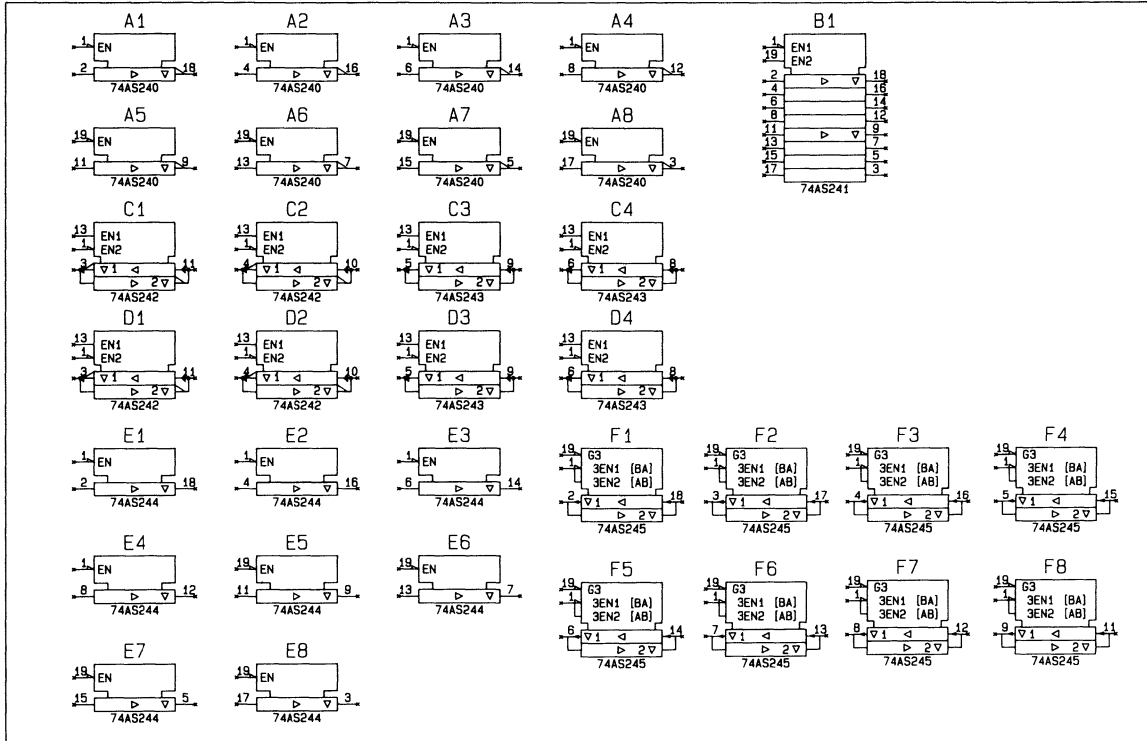


AS2A



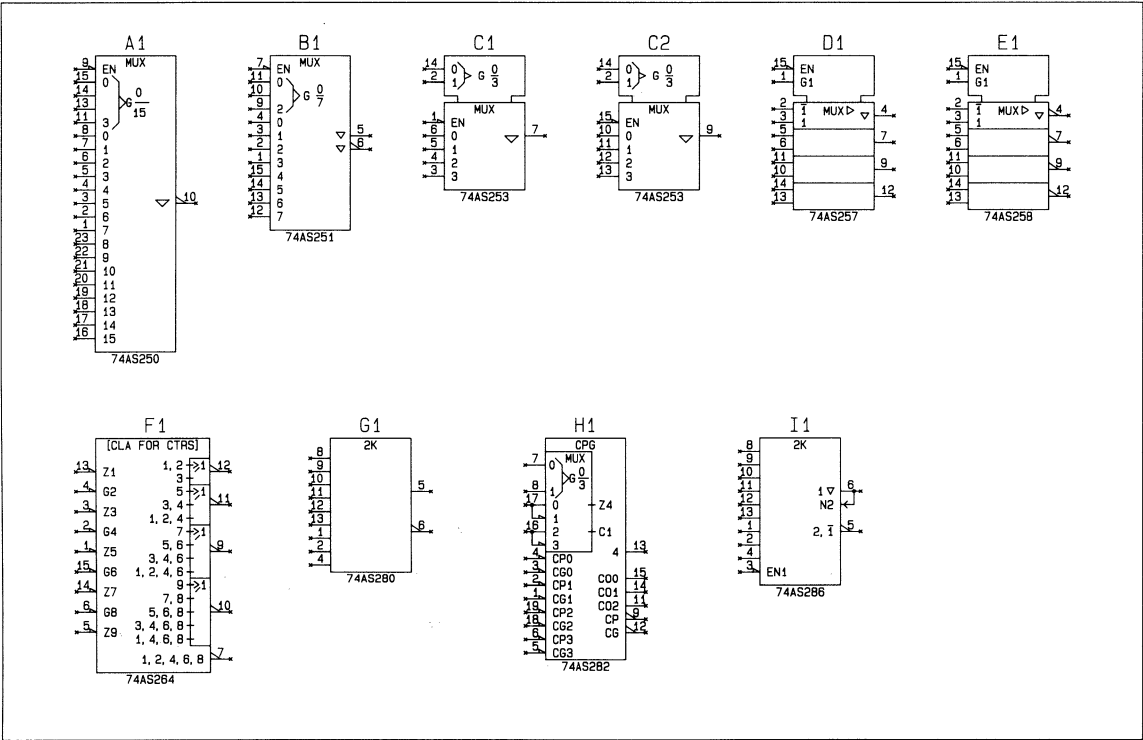
AS3A

000-0065-03



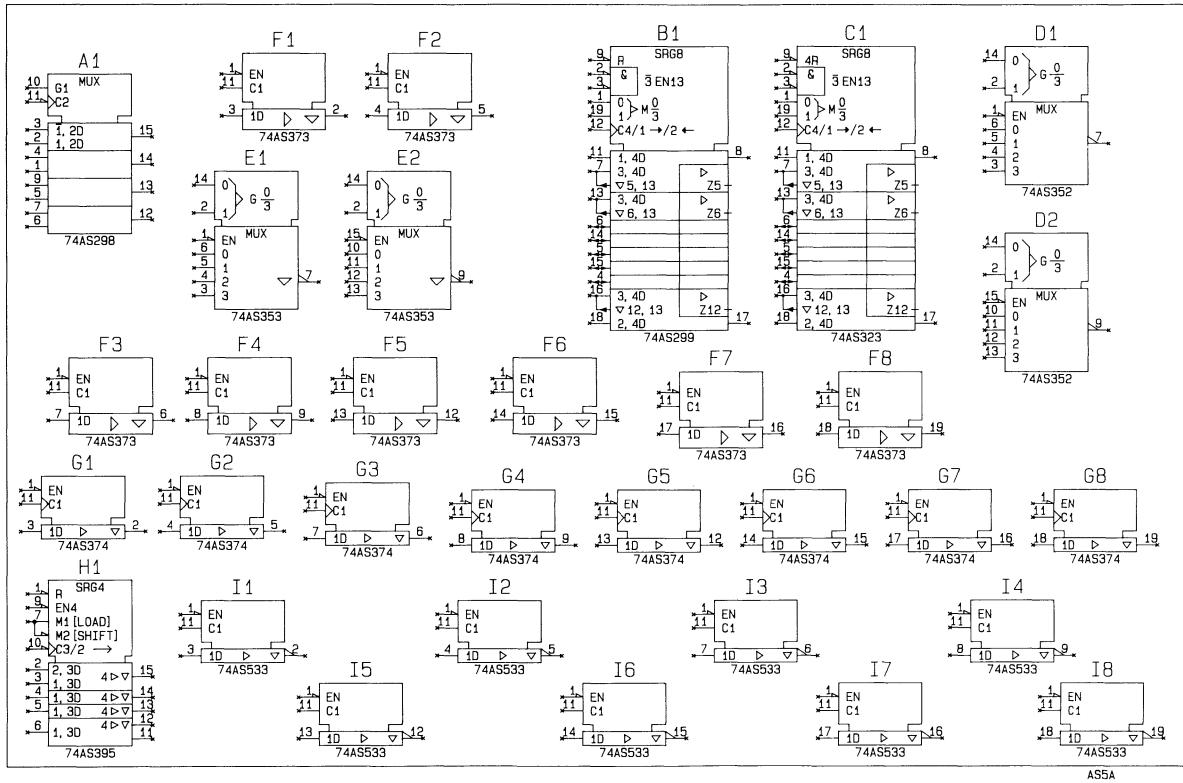
ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT ASSE



AS4X

000-0065-03

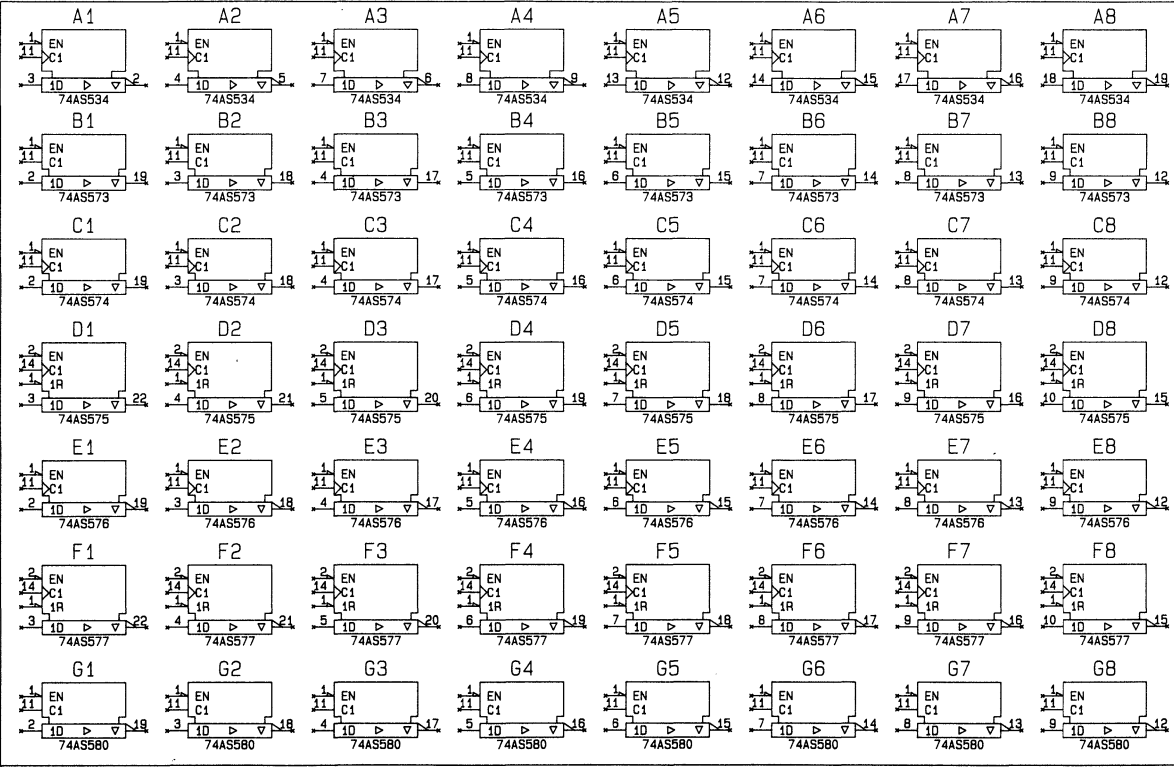


AS5A

ADVANCED SCHOTTKY COMPONENT SYMBOL PLOTS

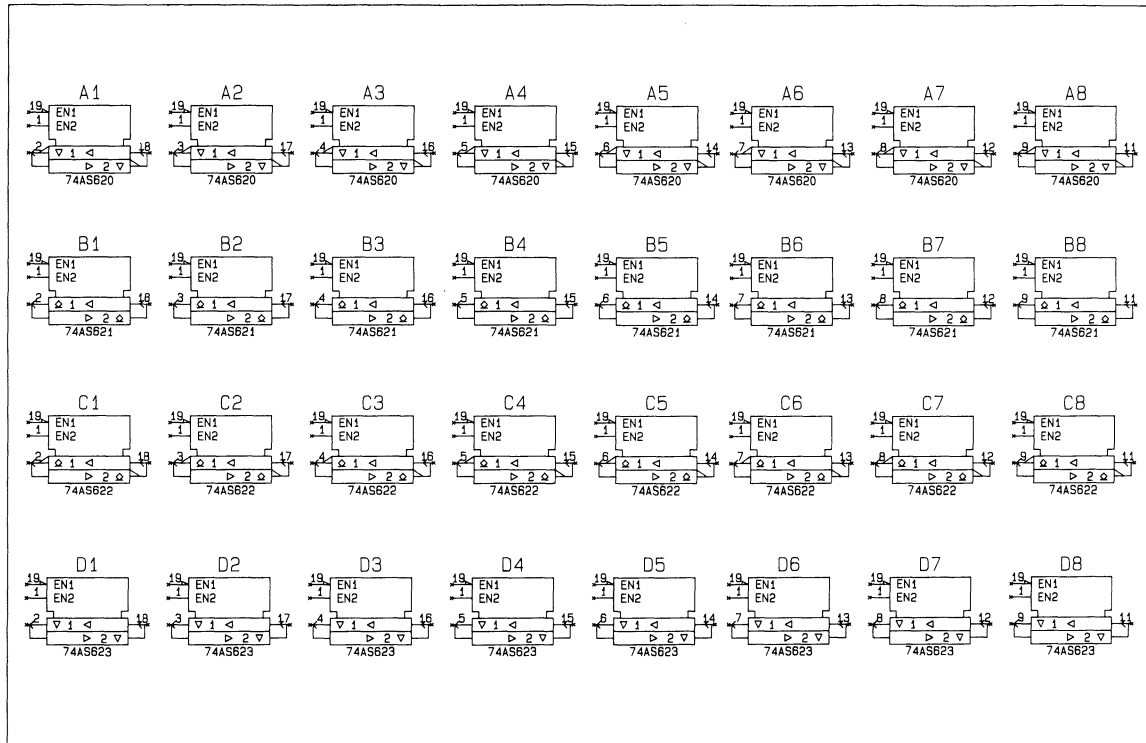
PLOT AS6E

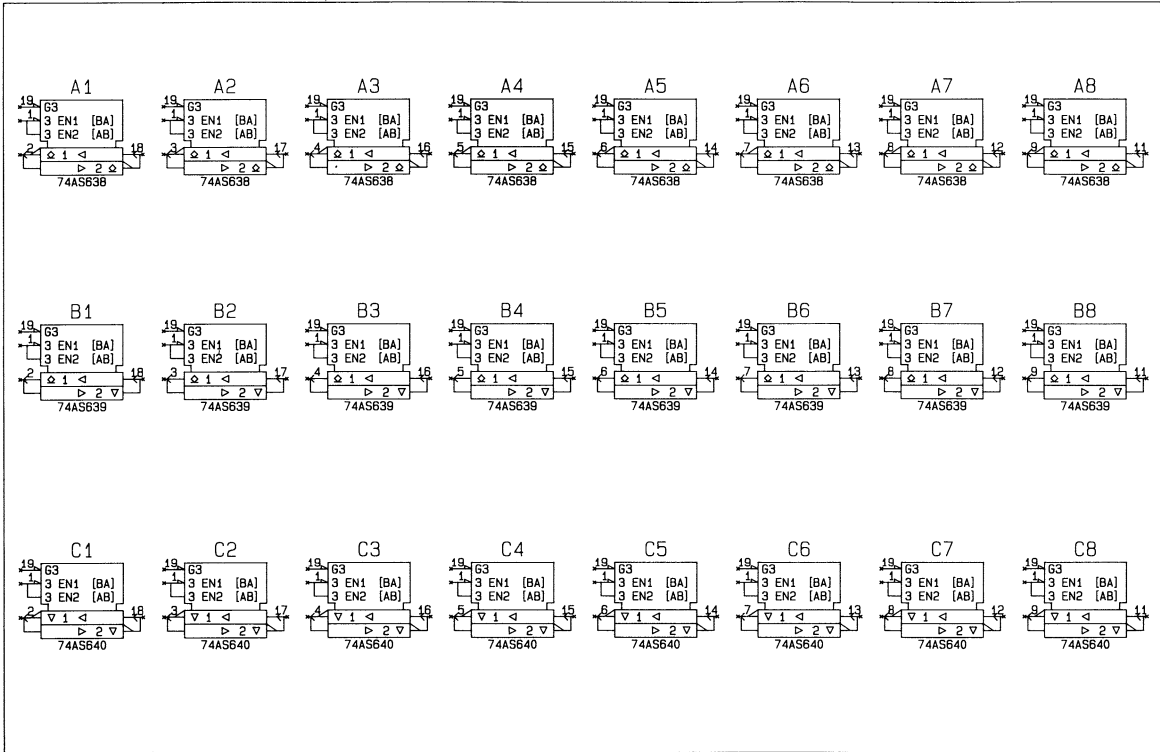
Schematic Symbols 217



AS6A

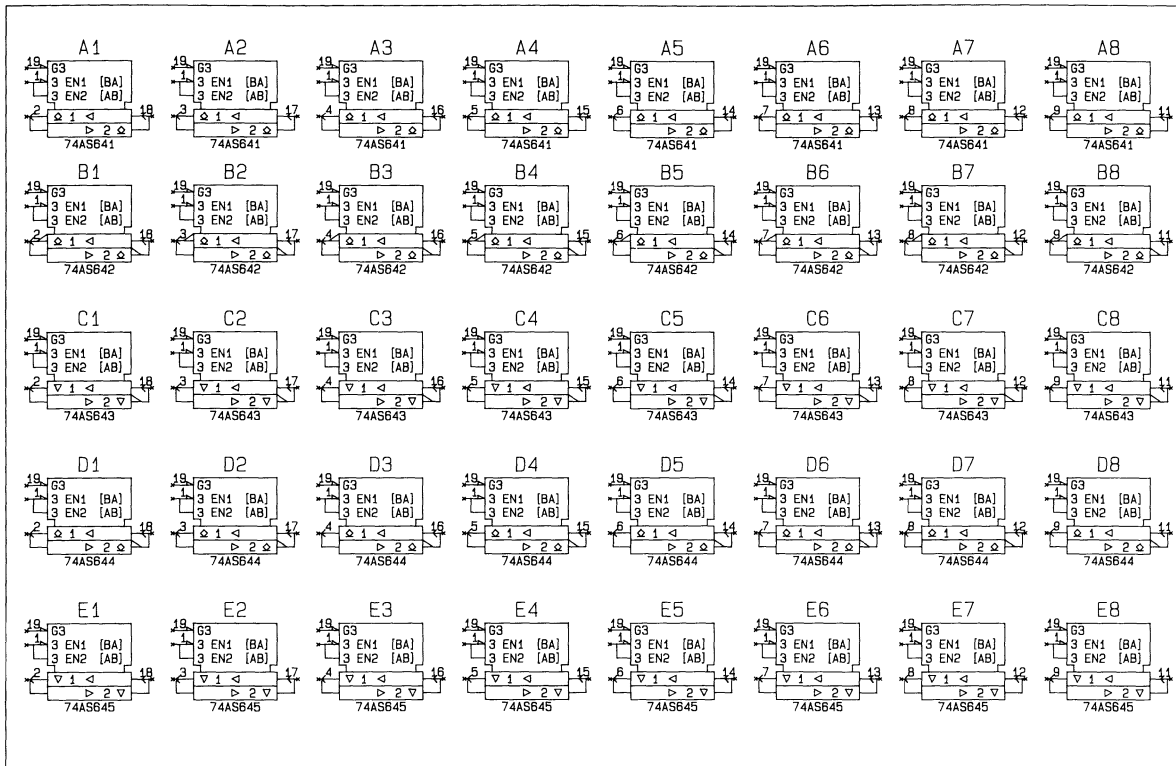
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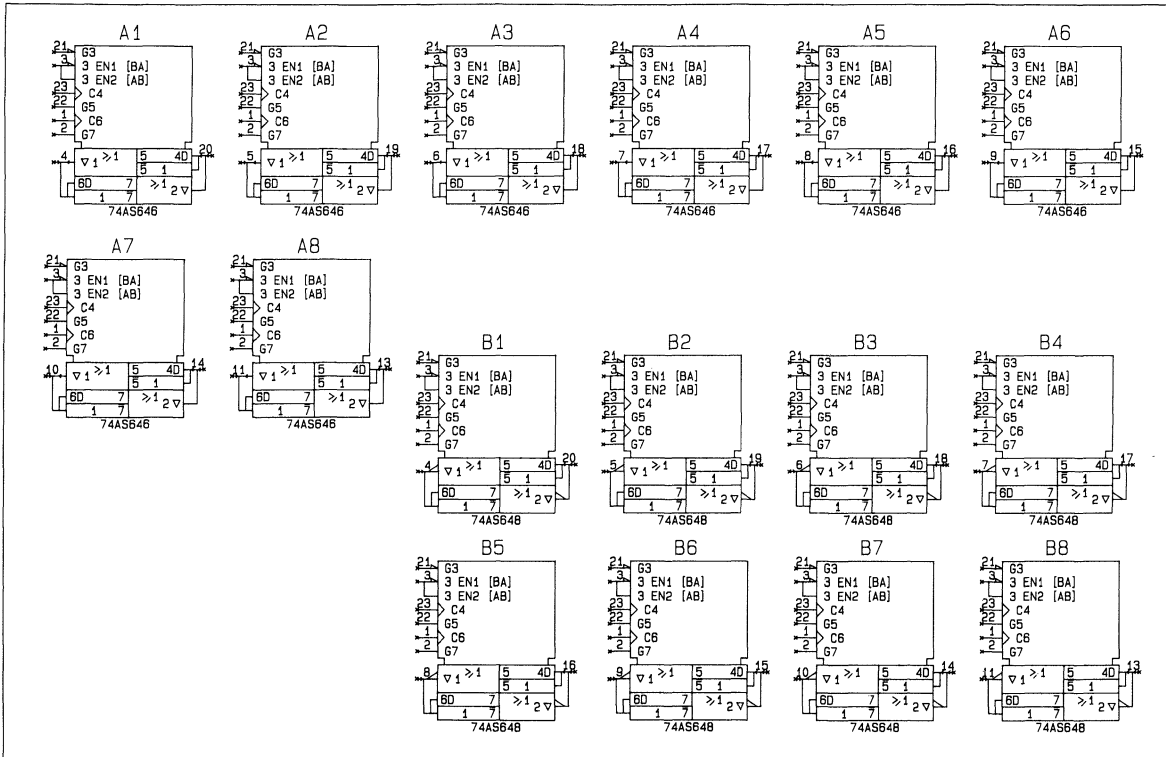


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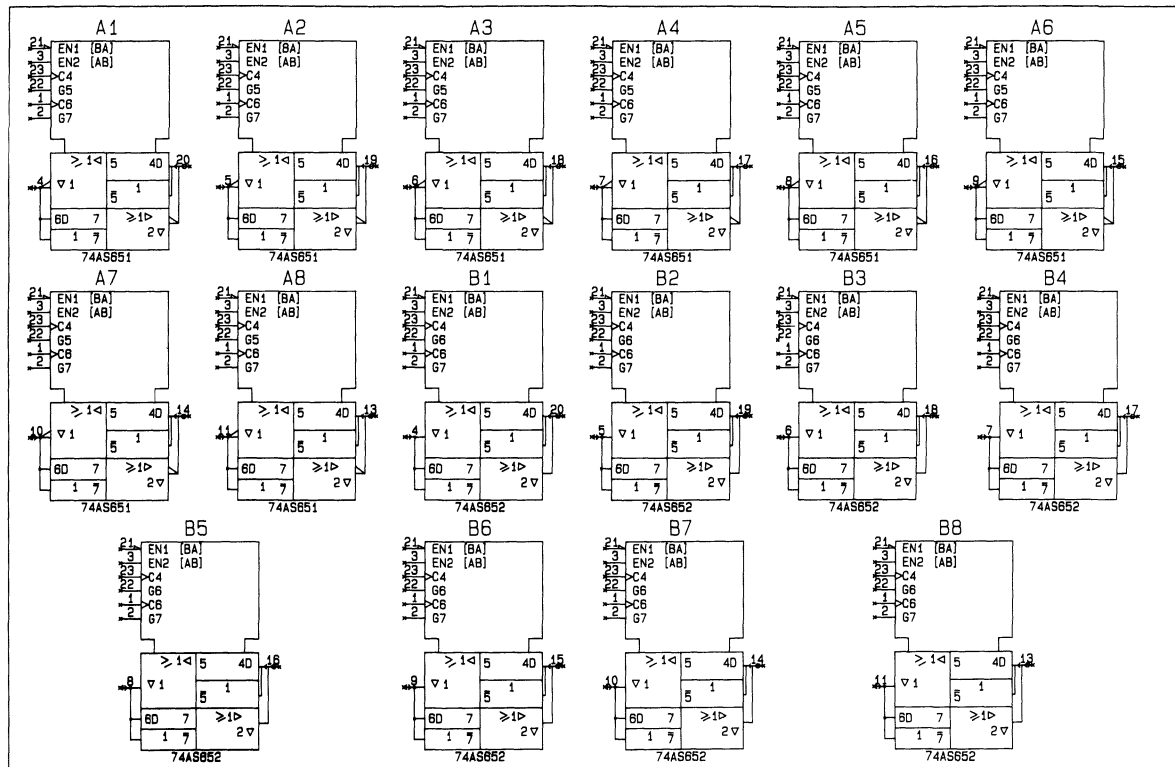
AS7X



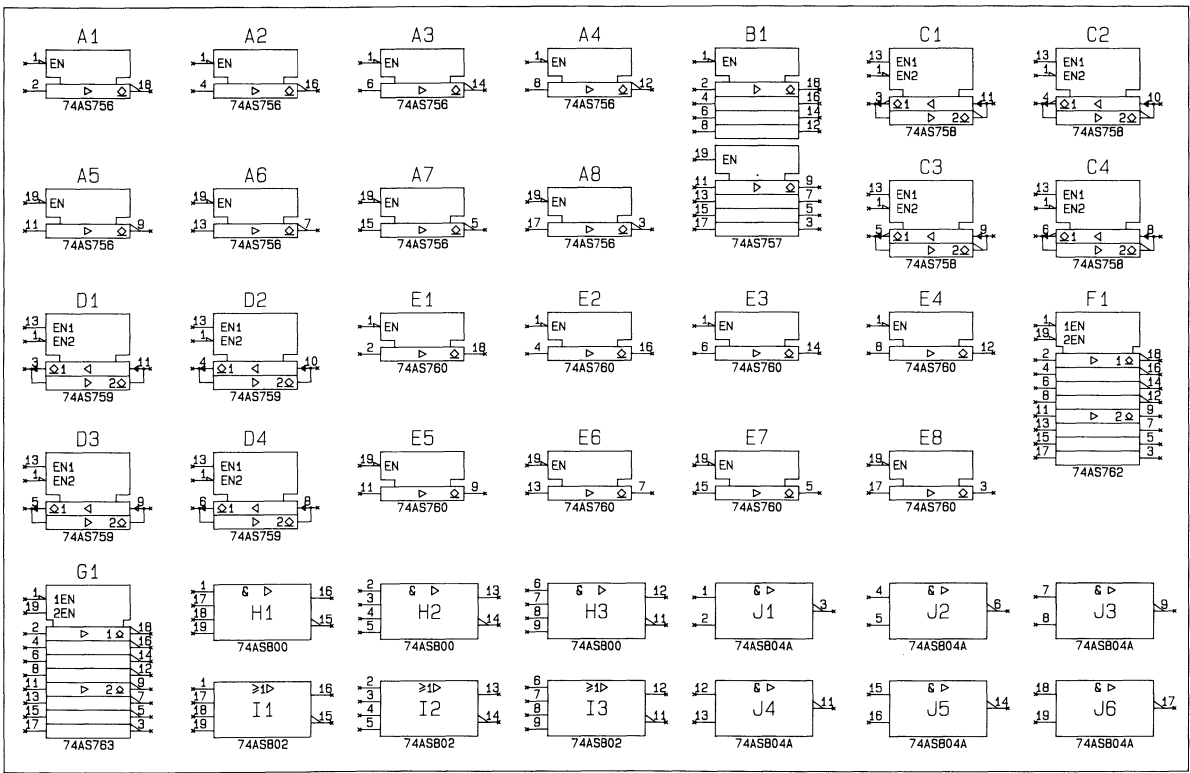
ASBA



AS9A

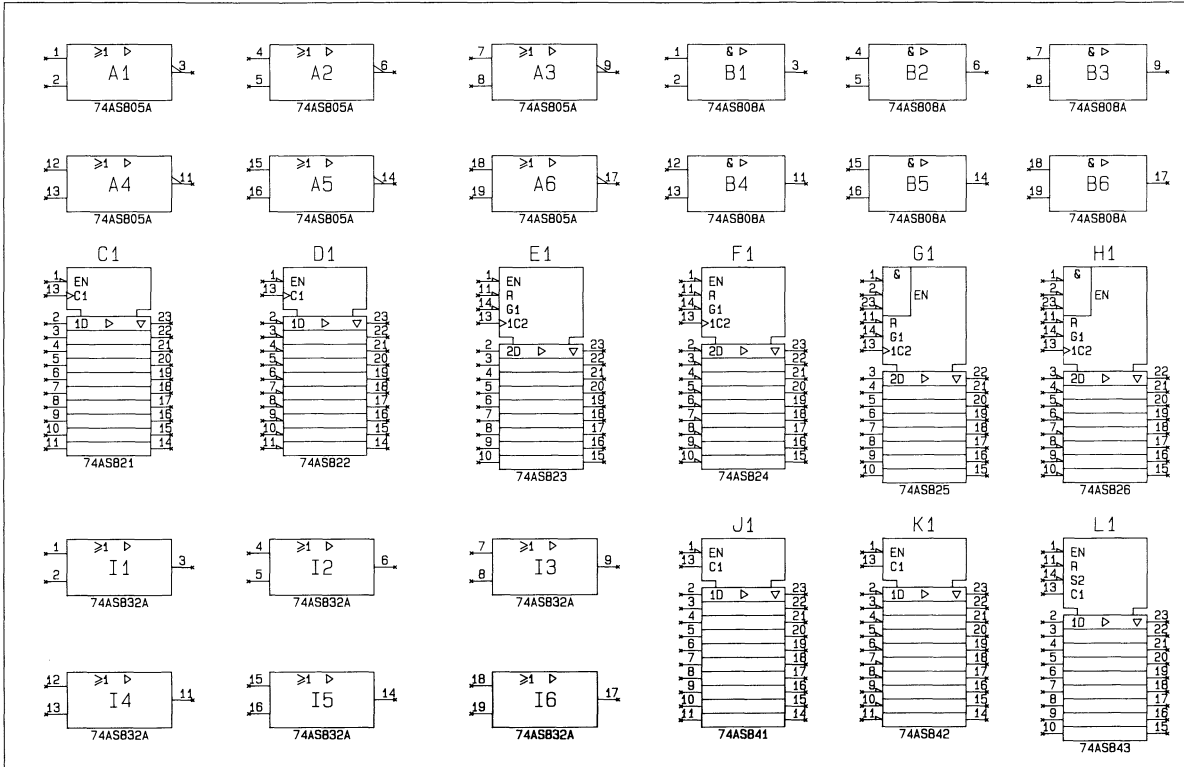


AS10A

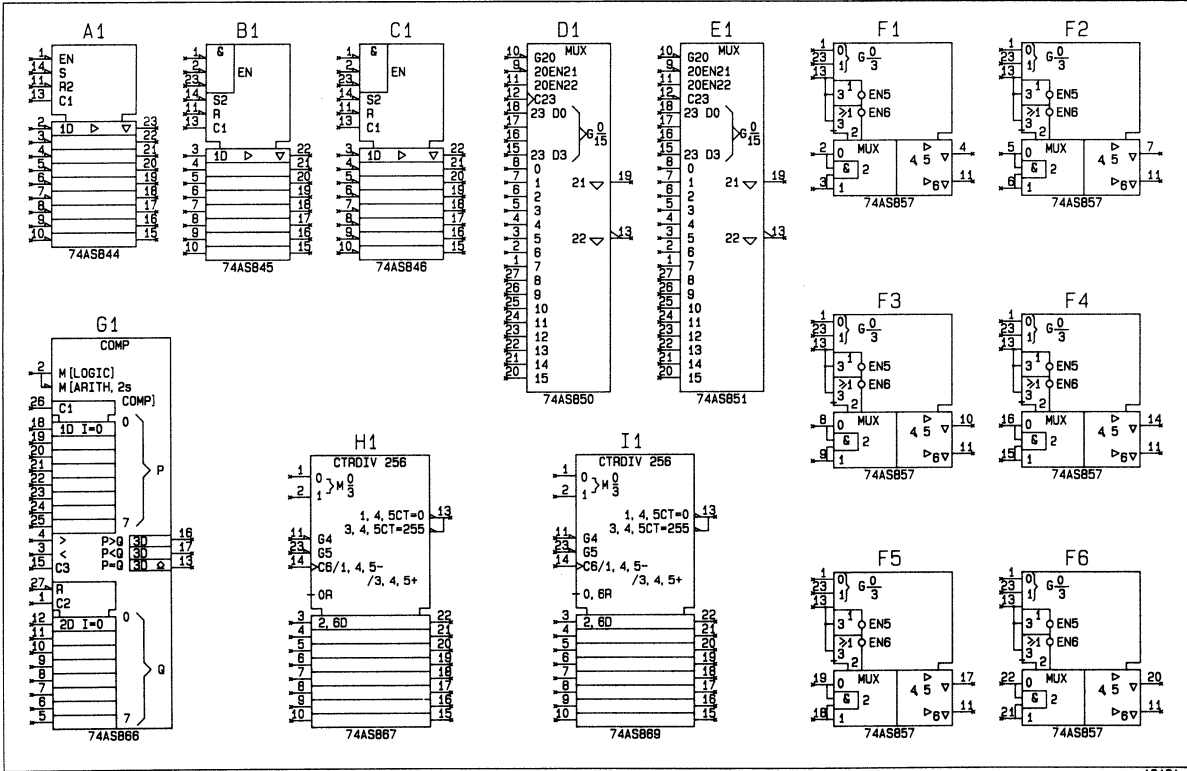


AS11A

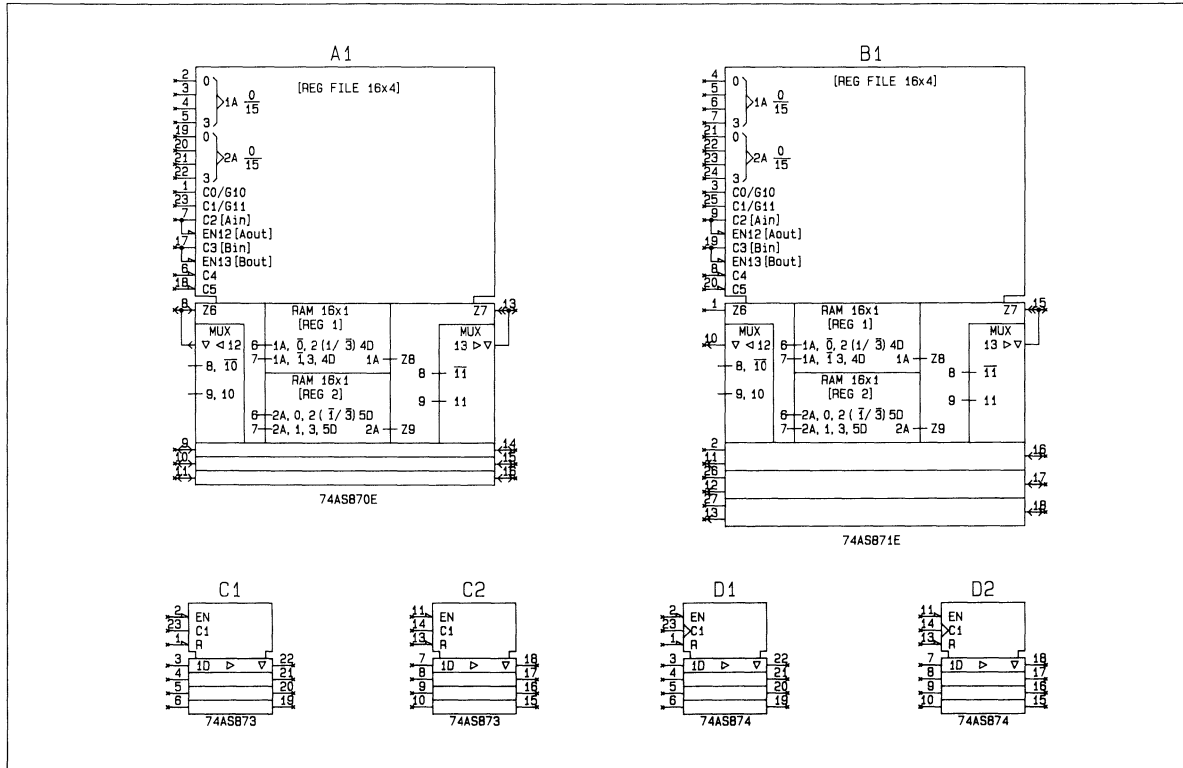
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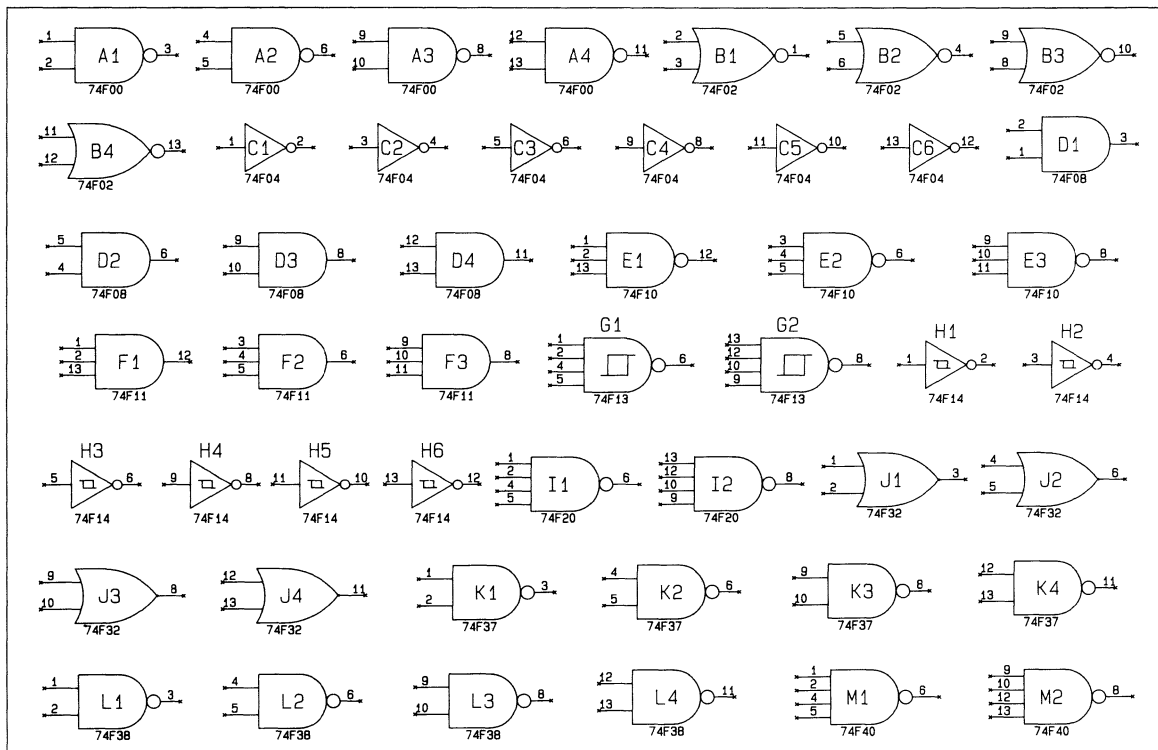
AS12A



AS13A



AS14A



F0

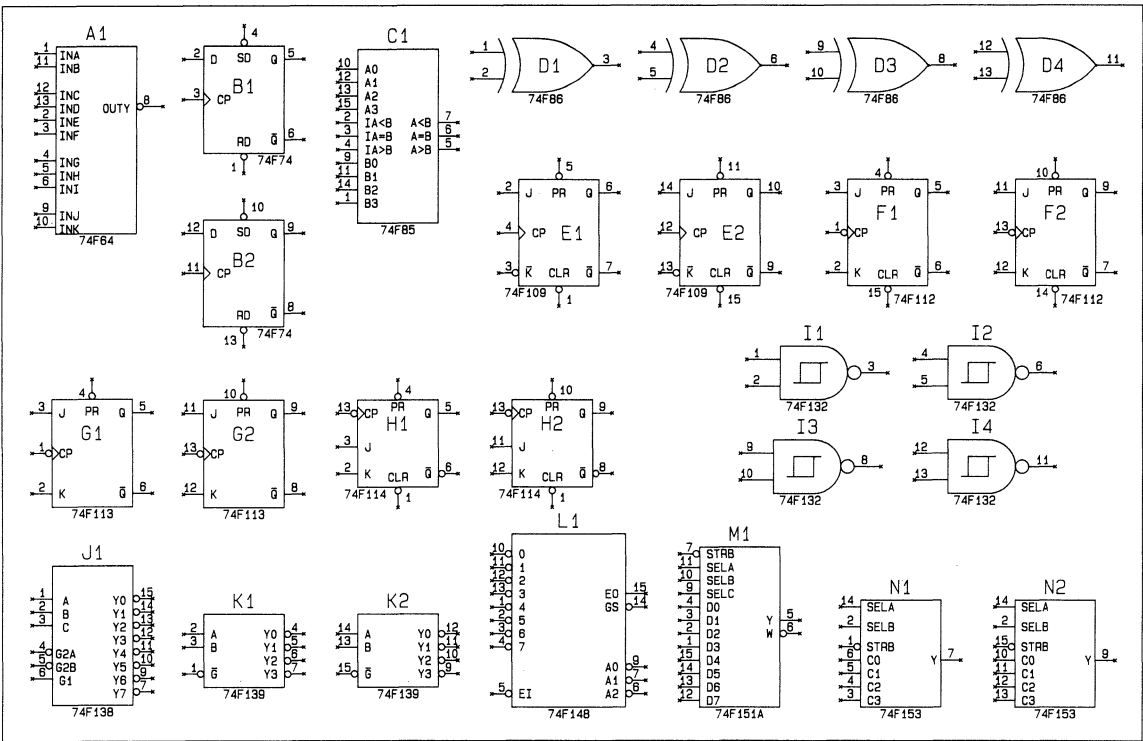
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F1

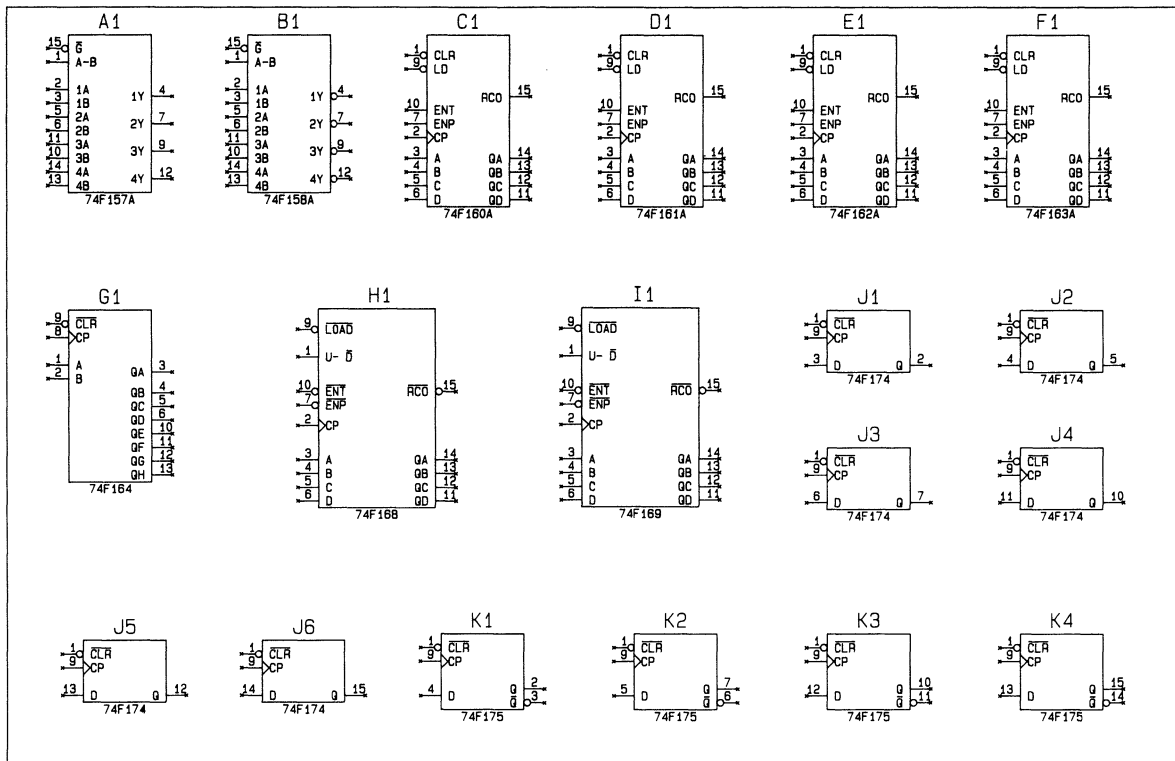
Schematic Symbols 229

FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F2



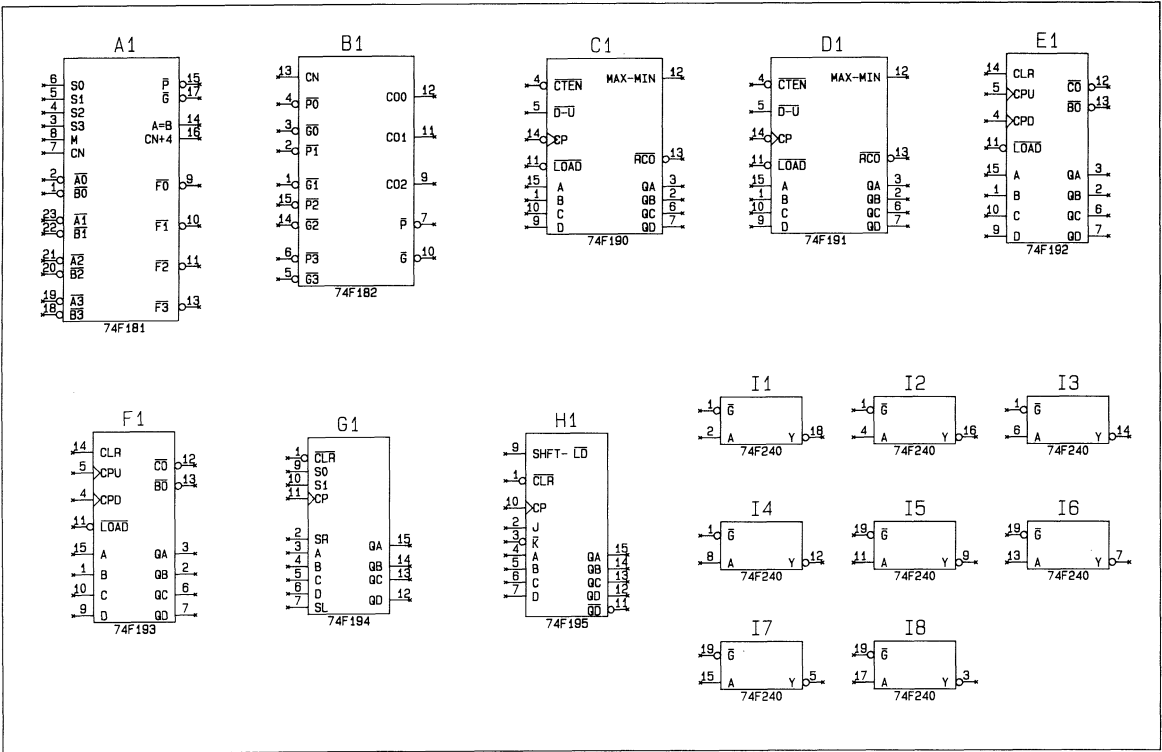
F1



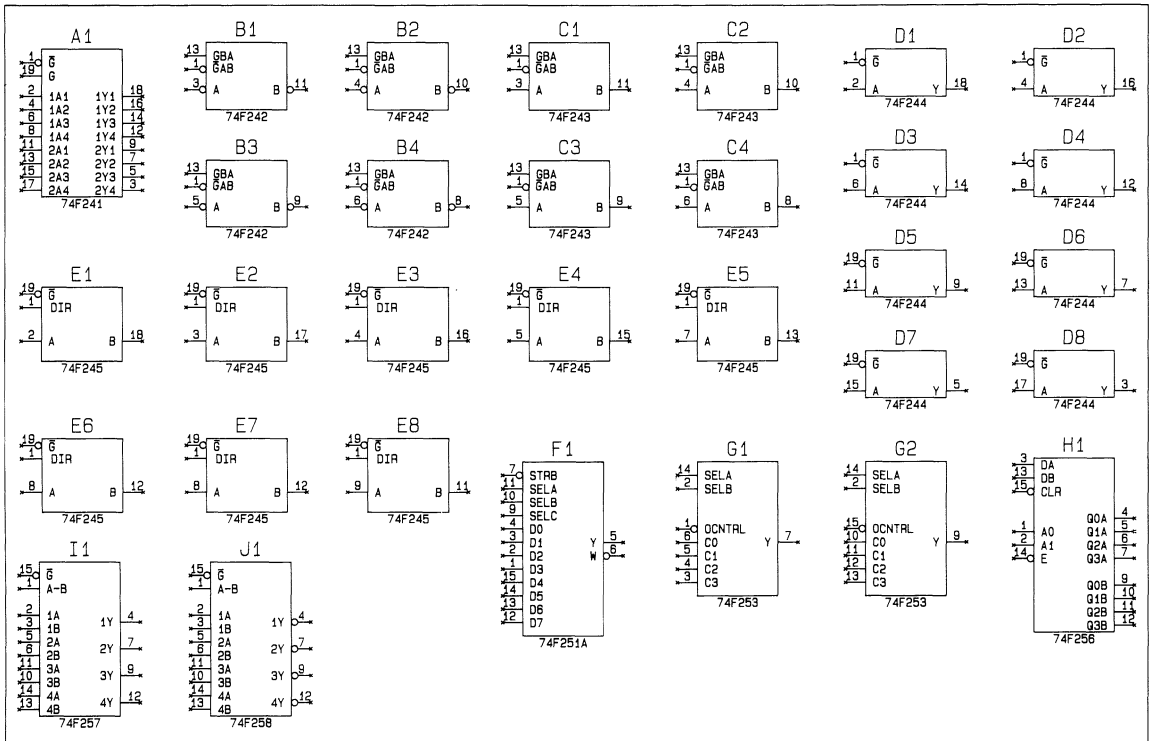
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

Schematic Symbols 231

PLOT F3



F3



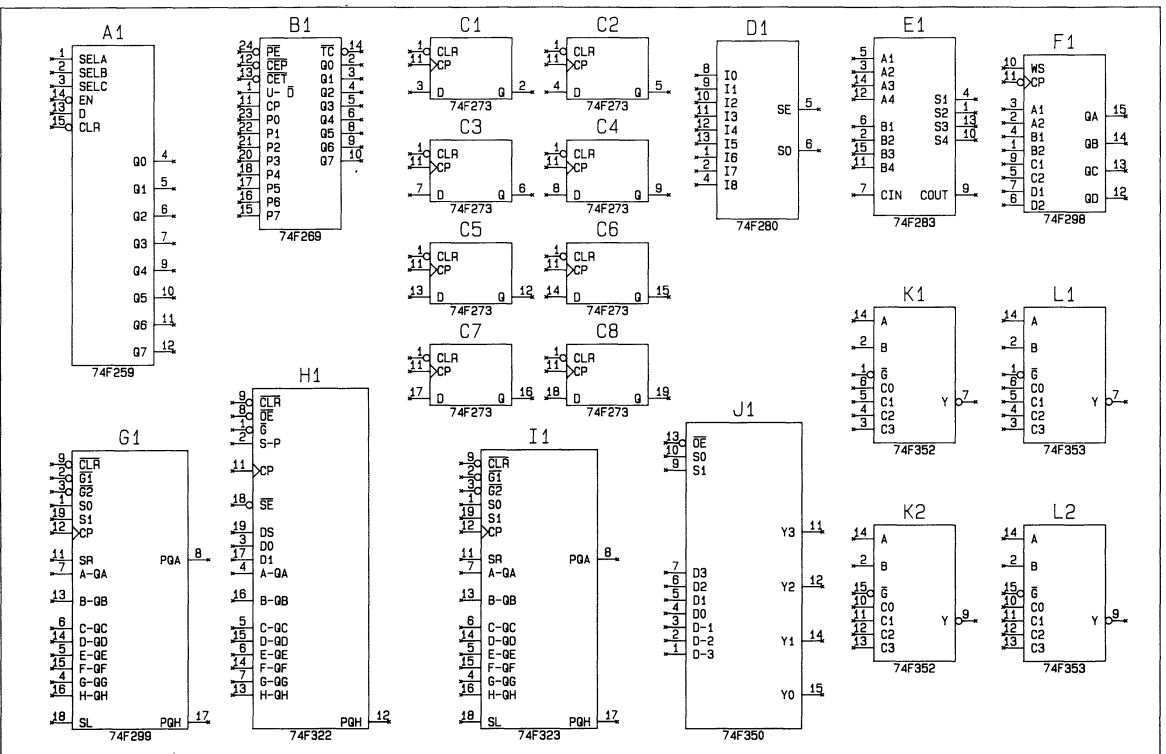
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F5

Schematic Symbols 233

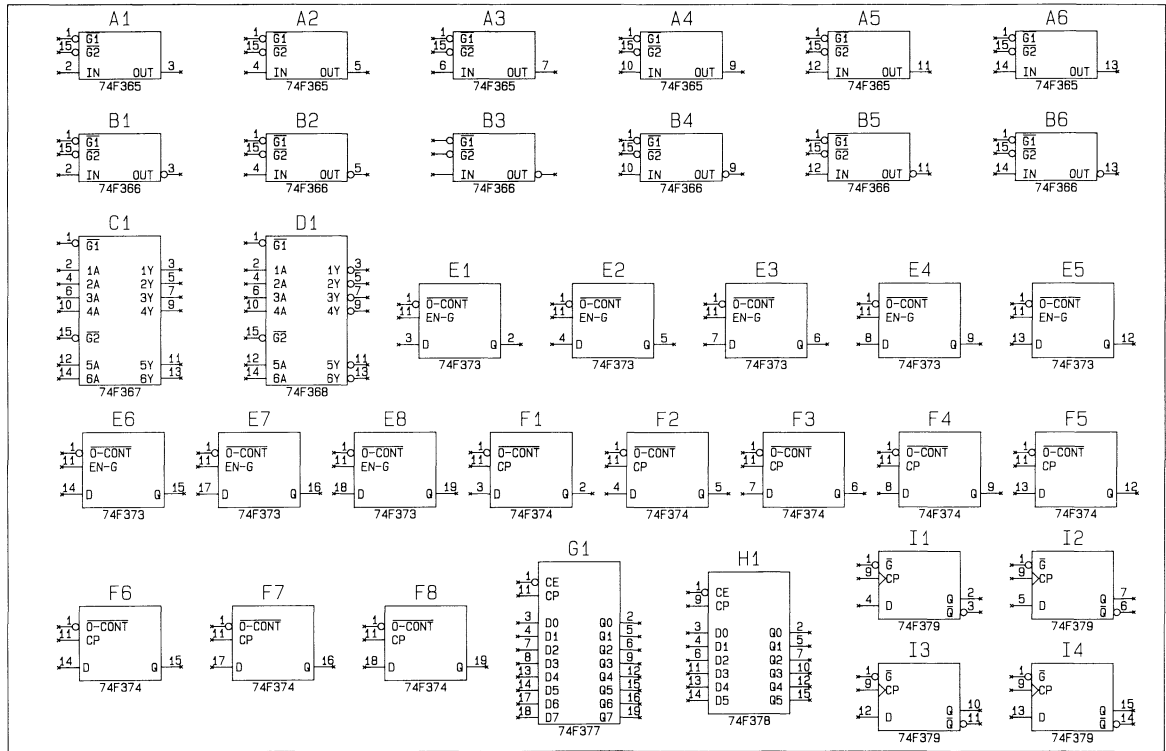
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F6

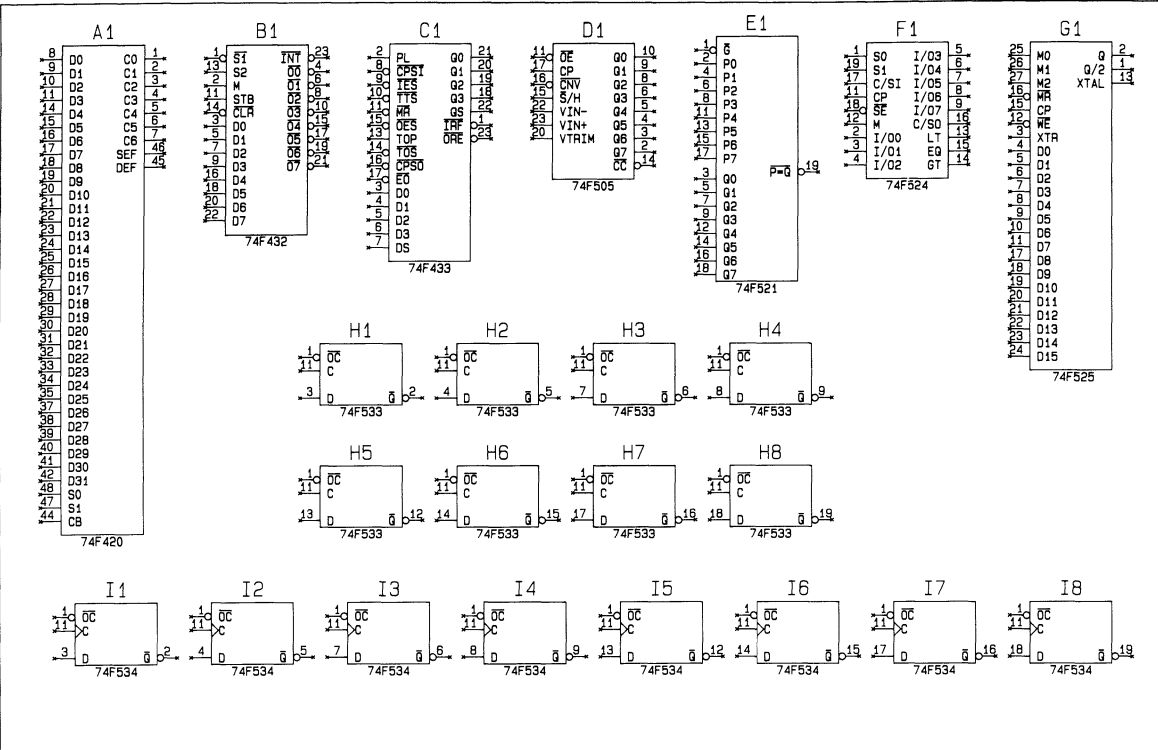


000-0065-03

F5



F6



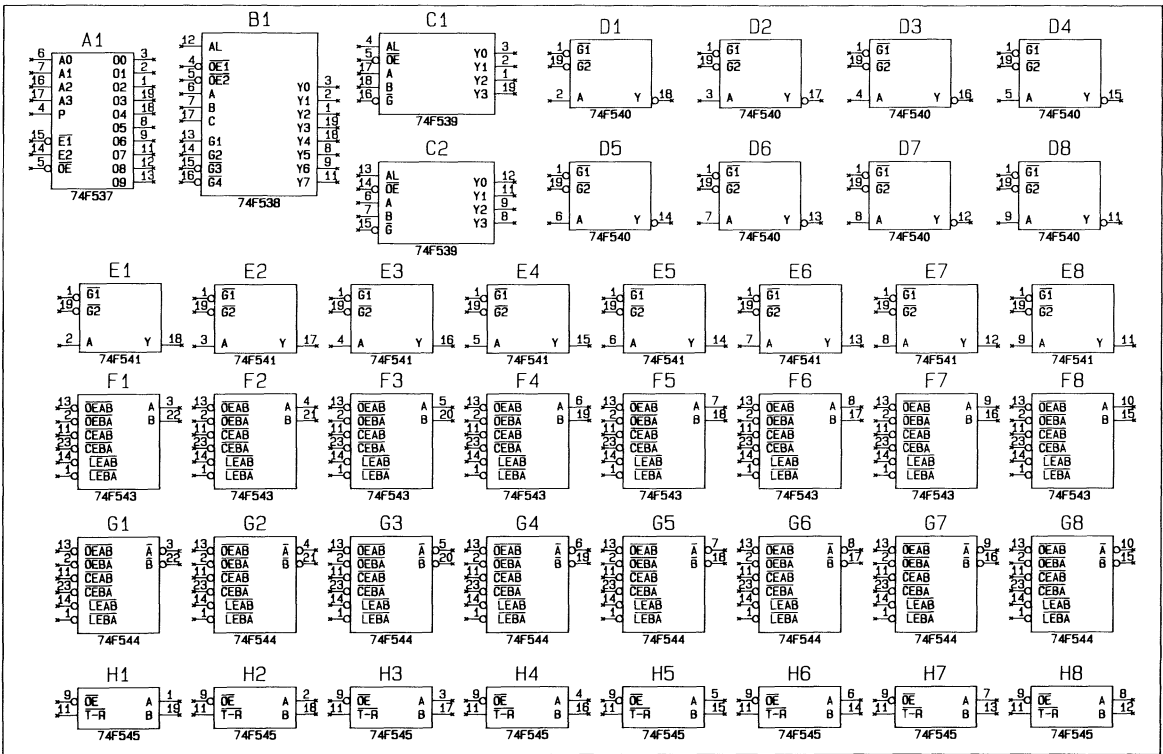
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F9

F8

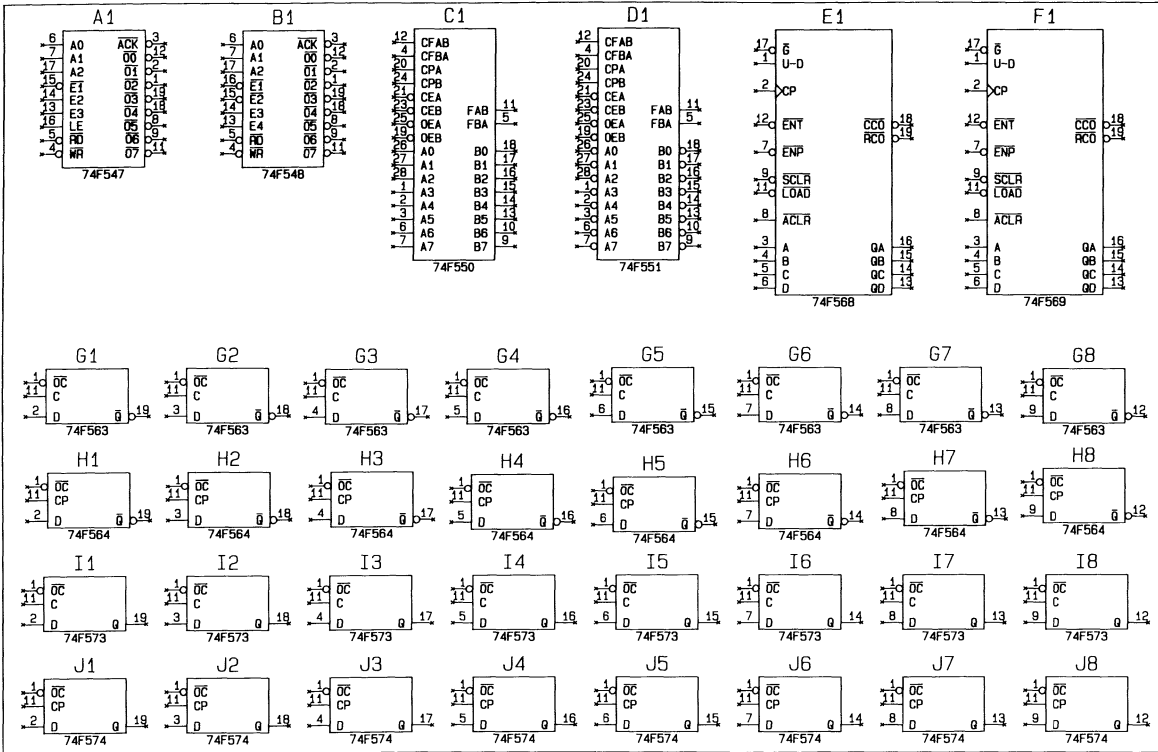
FAIRCHILD ADVANCED SCHOTTY
TTL COMPONENT SYMBOL PLOTS

PLOT F10



F8

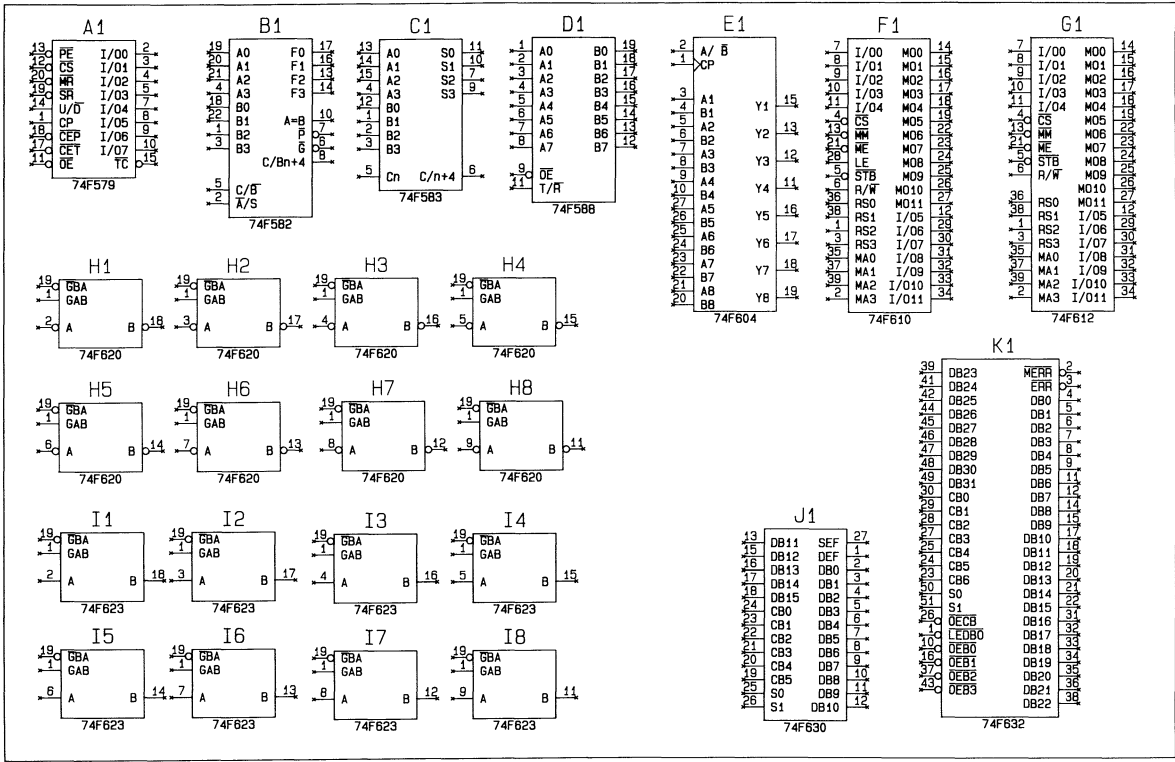
000-0065-03



F10

FAIRCHILD ADVANCED SCHOTTY
TTL COMPONENT SYMBOL PLOTS

PLOT F12

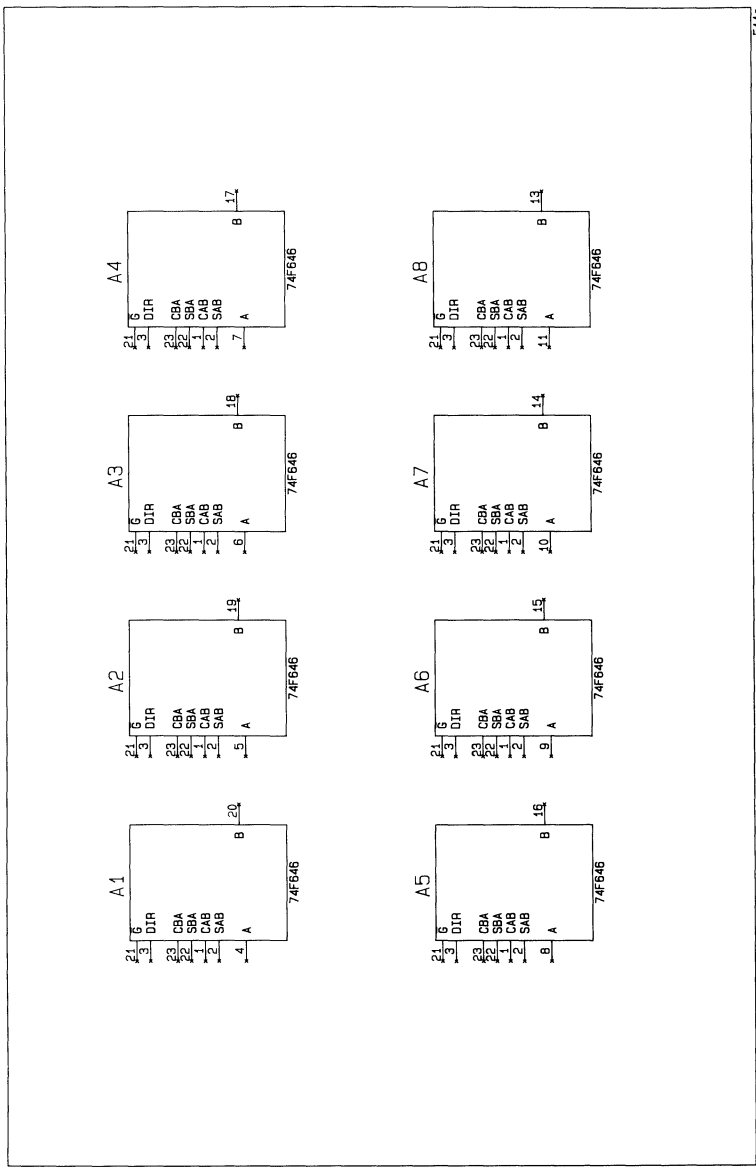


000-0065-03

F11

FAIRCHILD ADVANCED SCHOTTY
TTL COMPONENT SYMBOL PLOTS

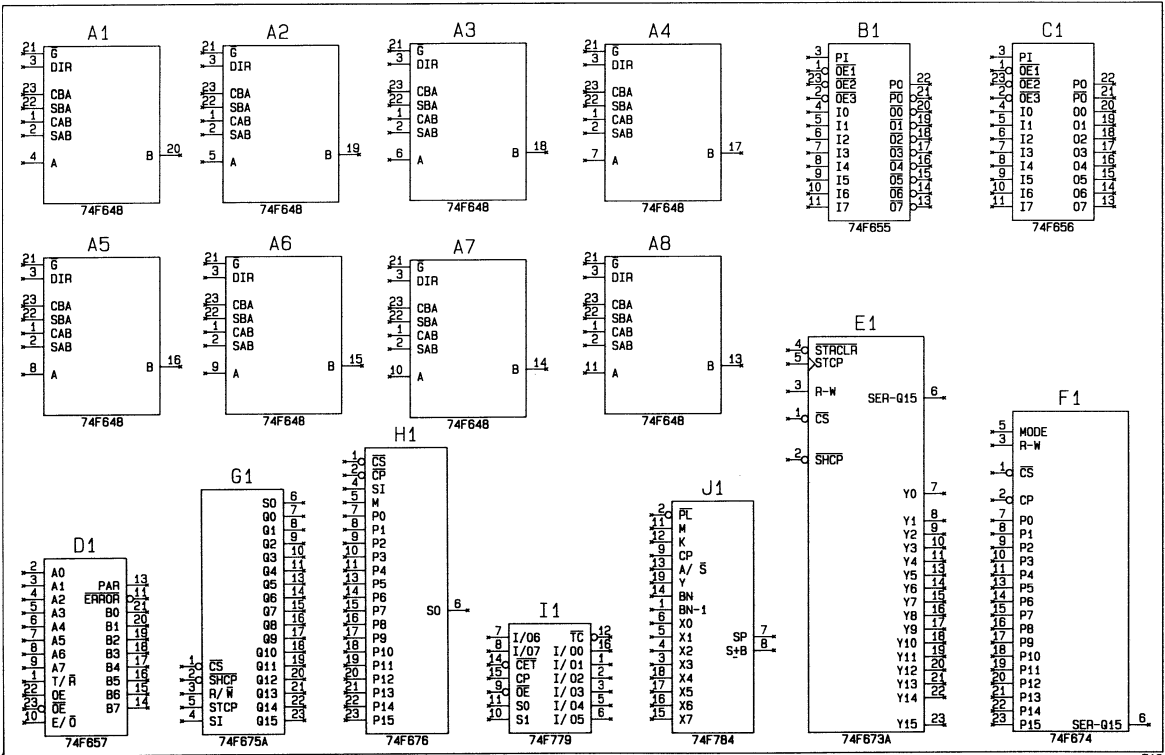
PLOT F13



F113

FAIRCHILD ADVANCED SCHOTTT
TTL COMPONENT SYMBOL PLOTS

PLOT F14

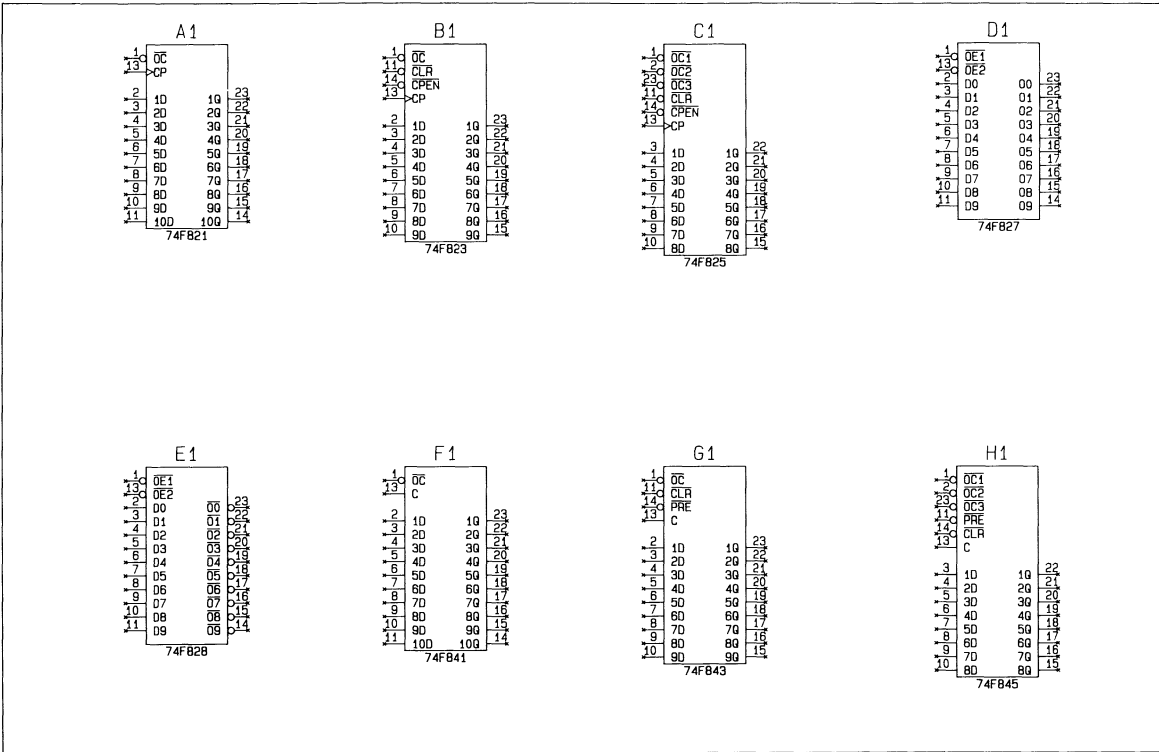


000-0065-03

F12

FAIRCHILD ADVANCED SCHOTTY
TTL COMPONENT SYMBOL PLOTS

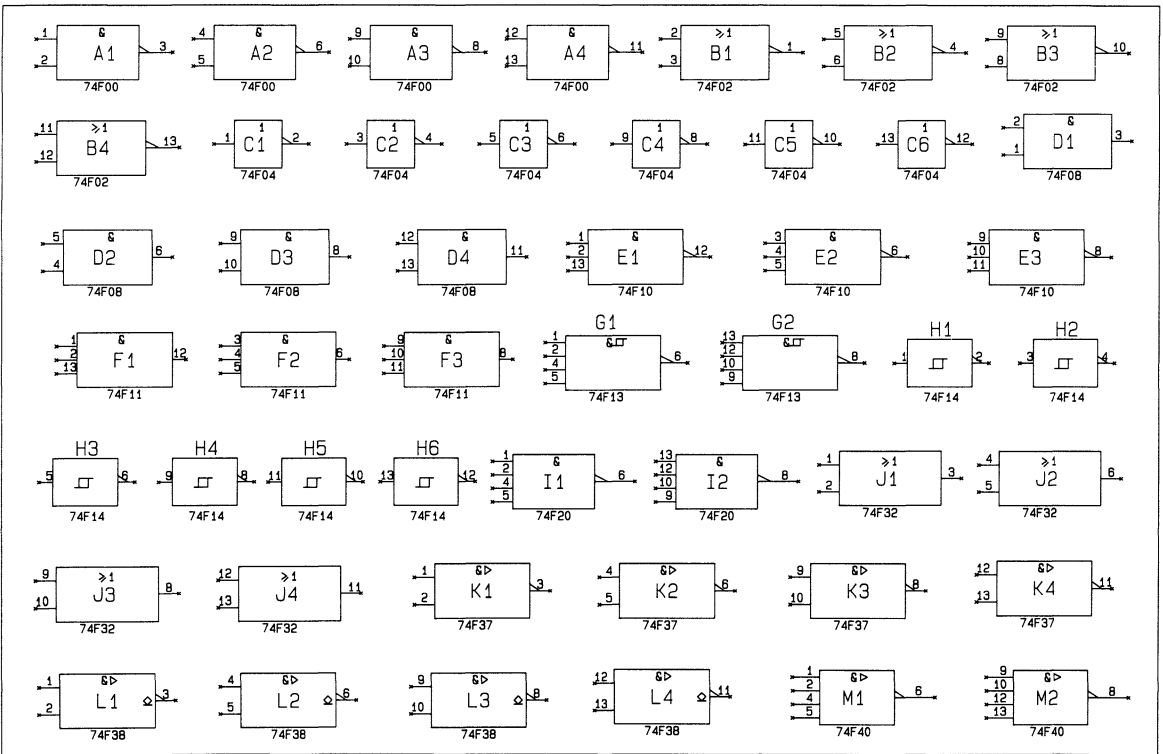
PLOT F15



F13

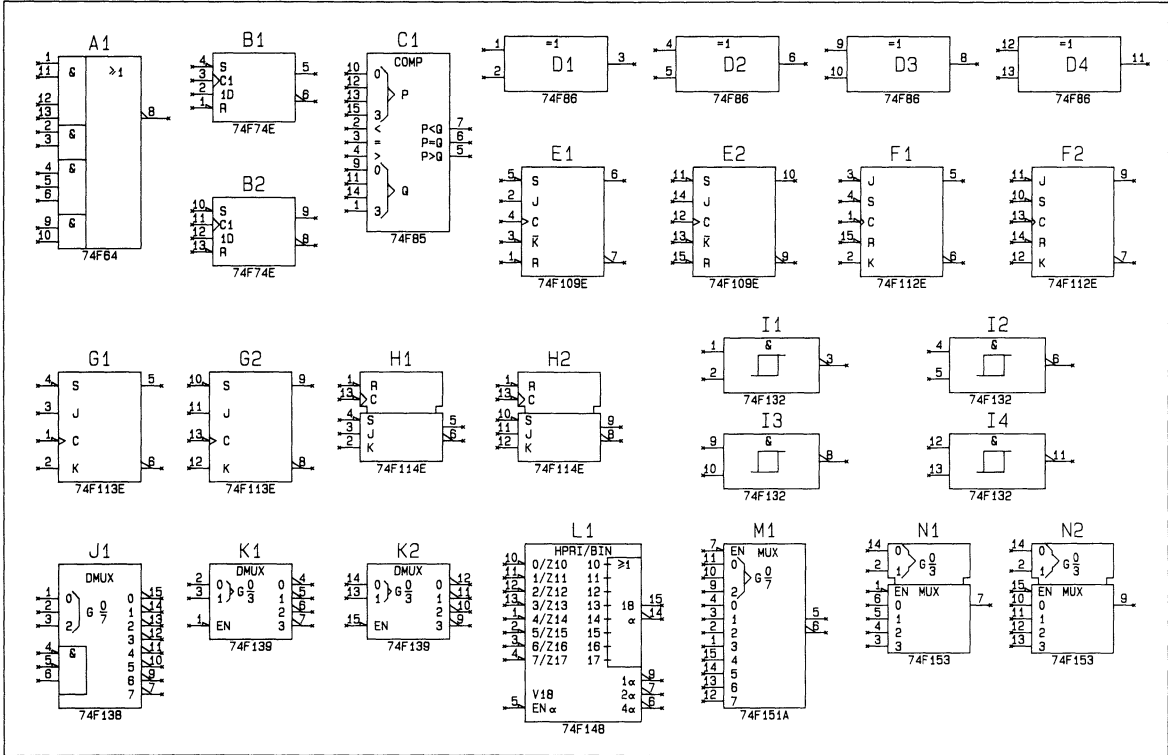
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT FILE



F0

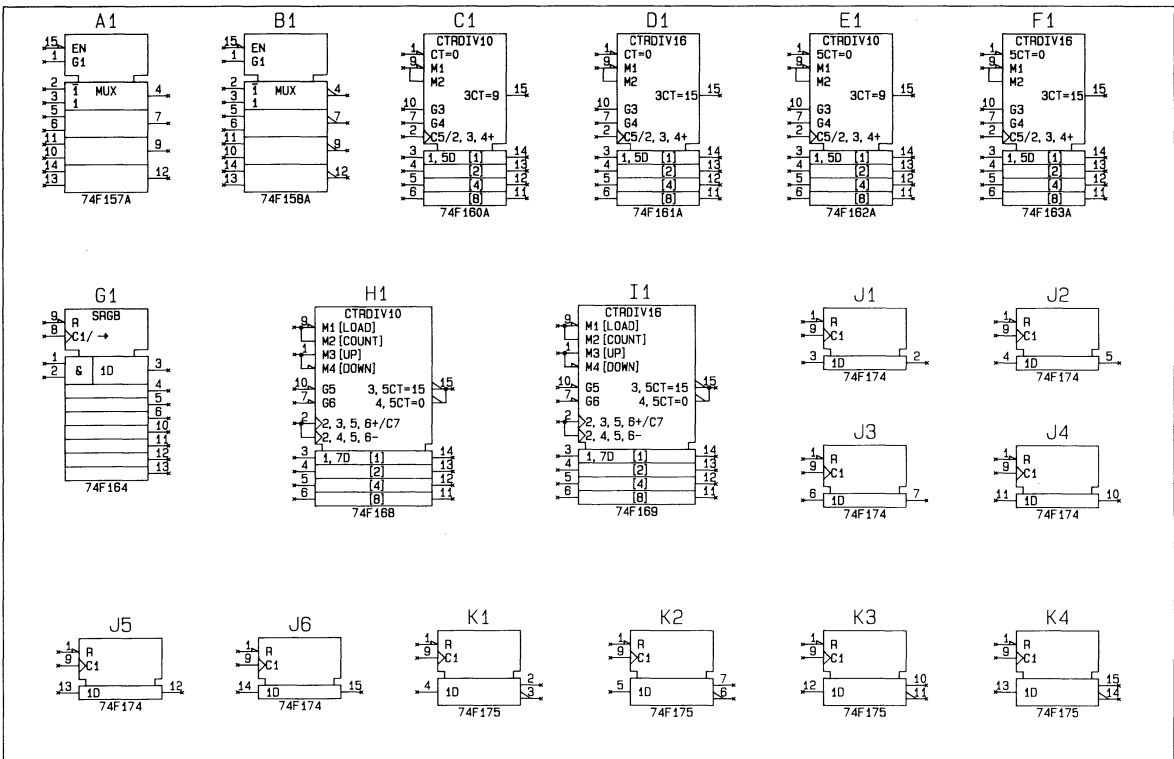
000-0065-03



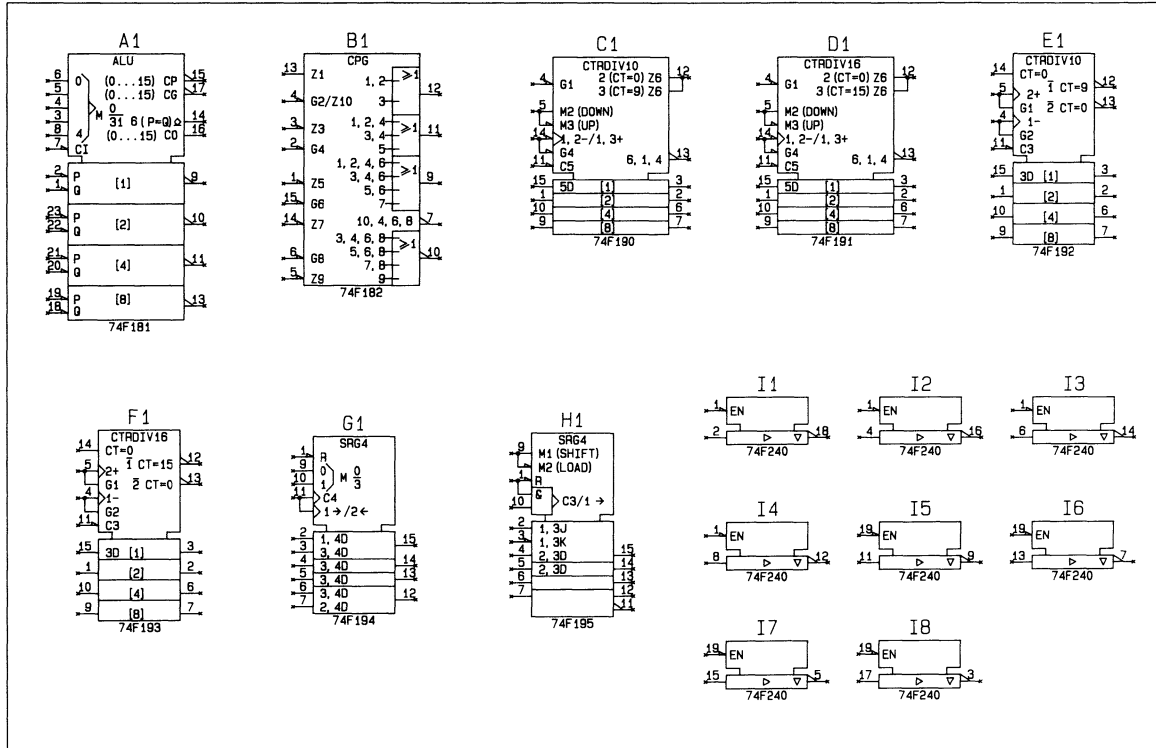
F1A

FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F2E



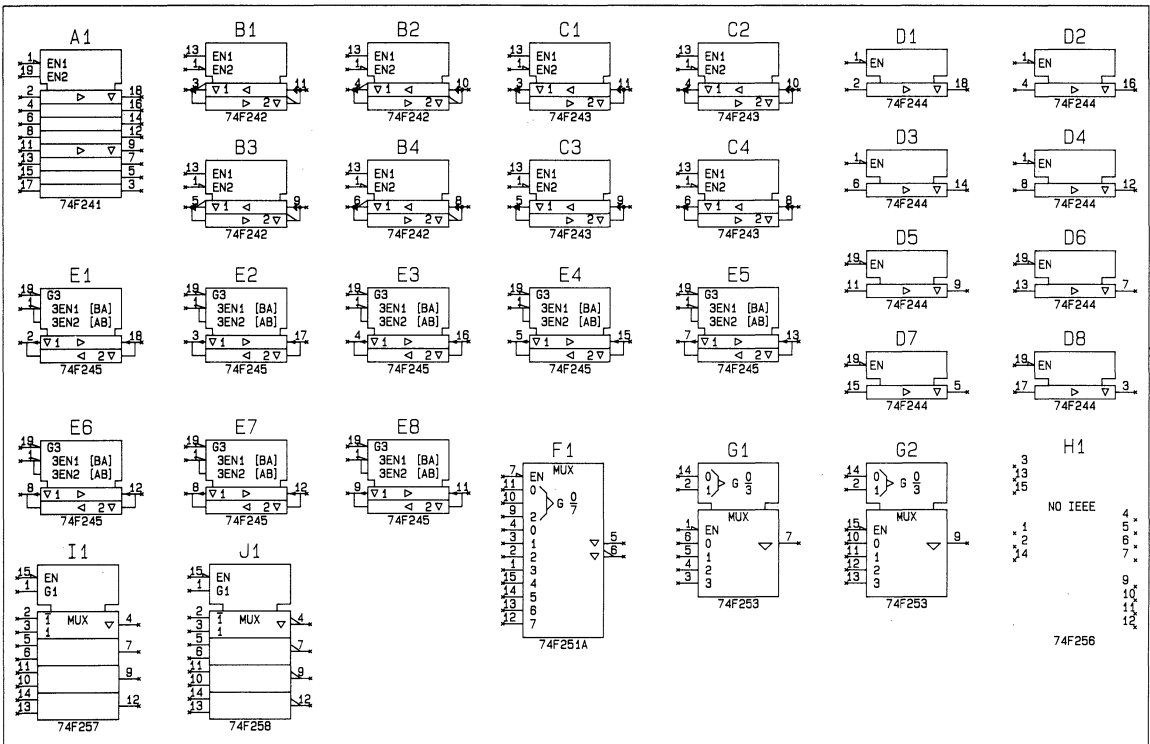
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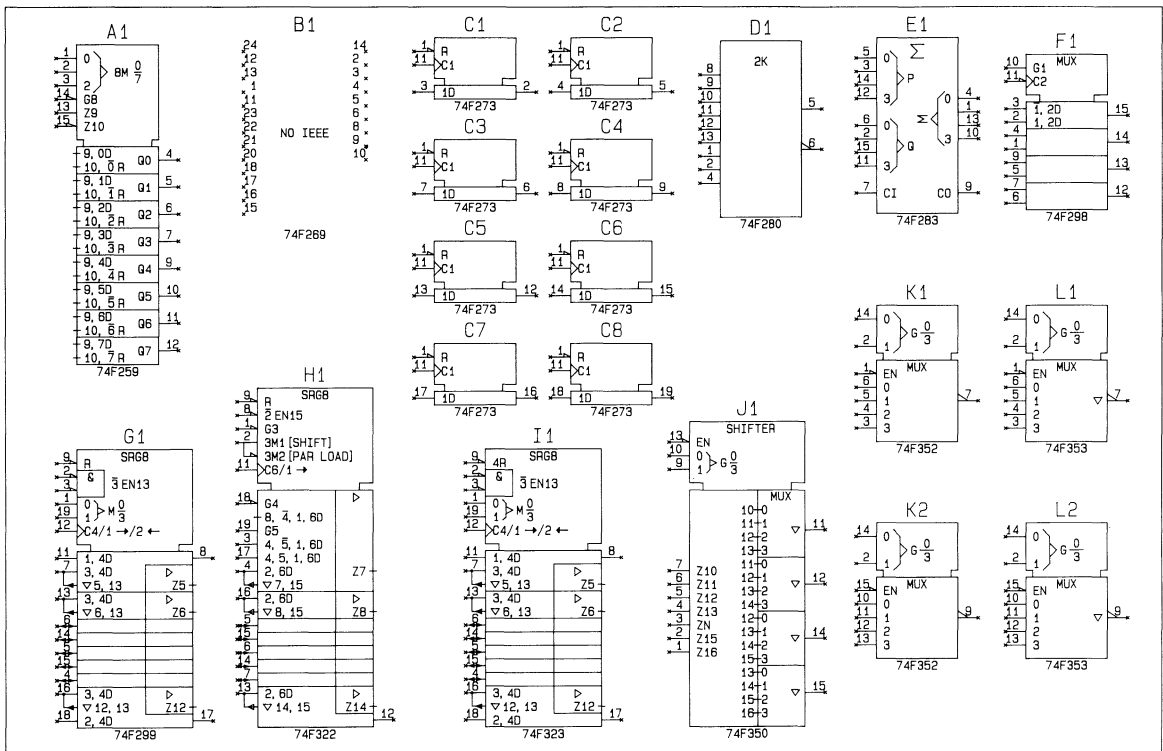
F3

FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F5E

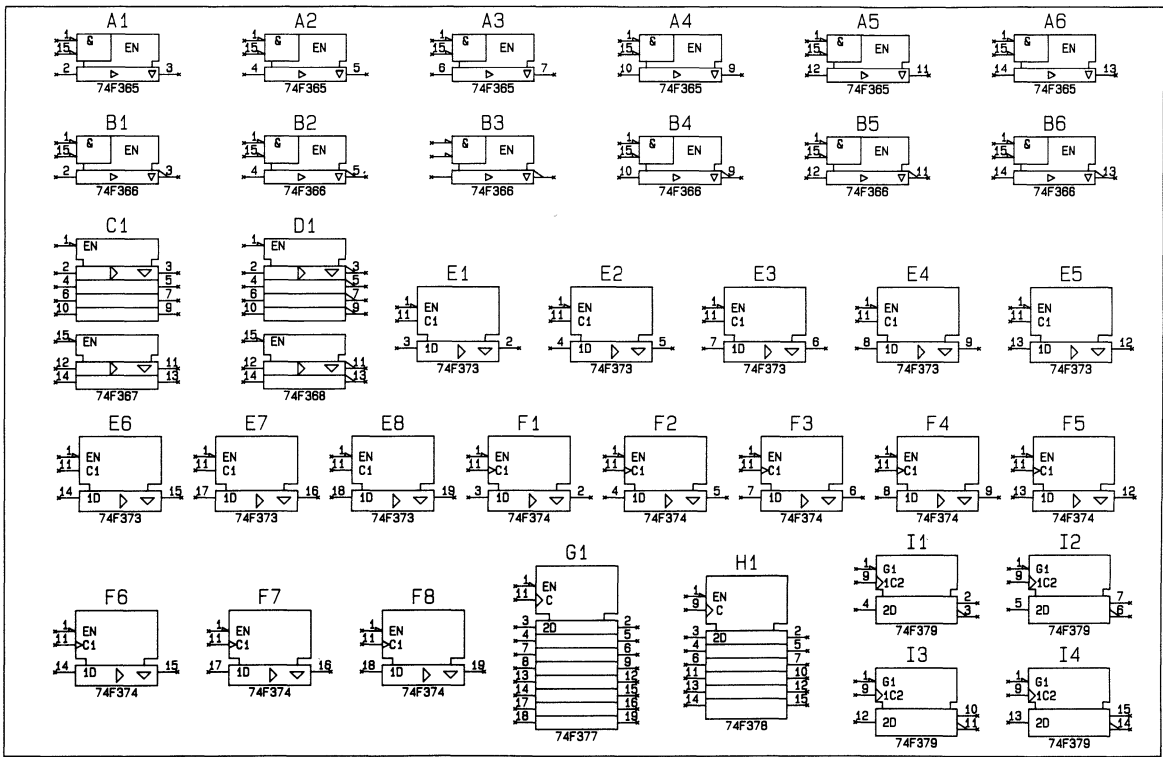


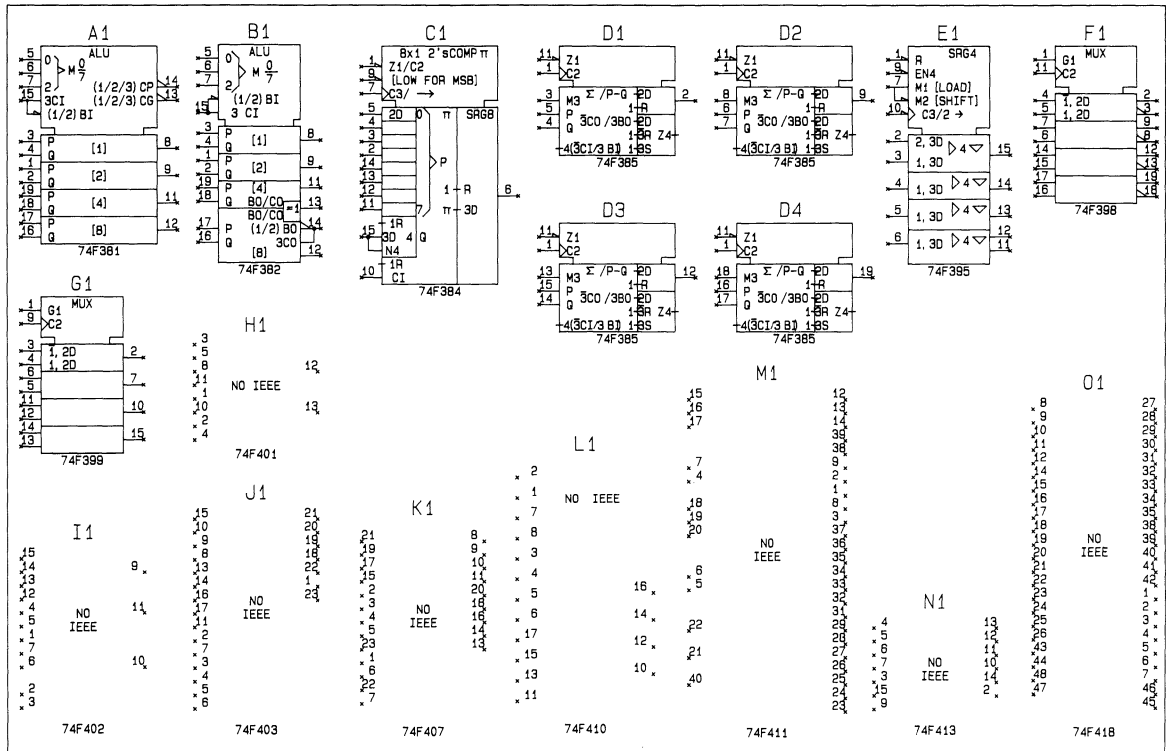
F4



FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F6E





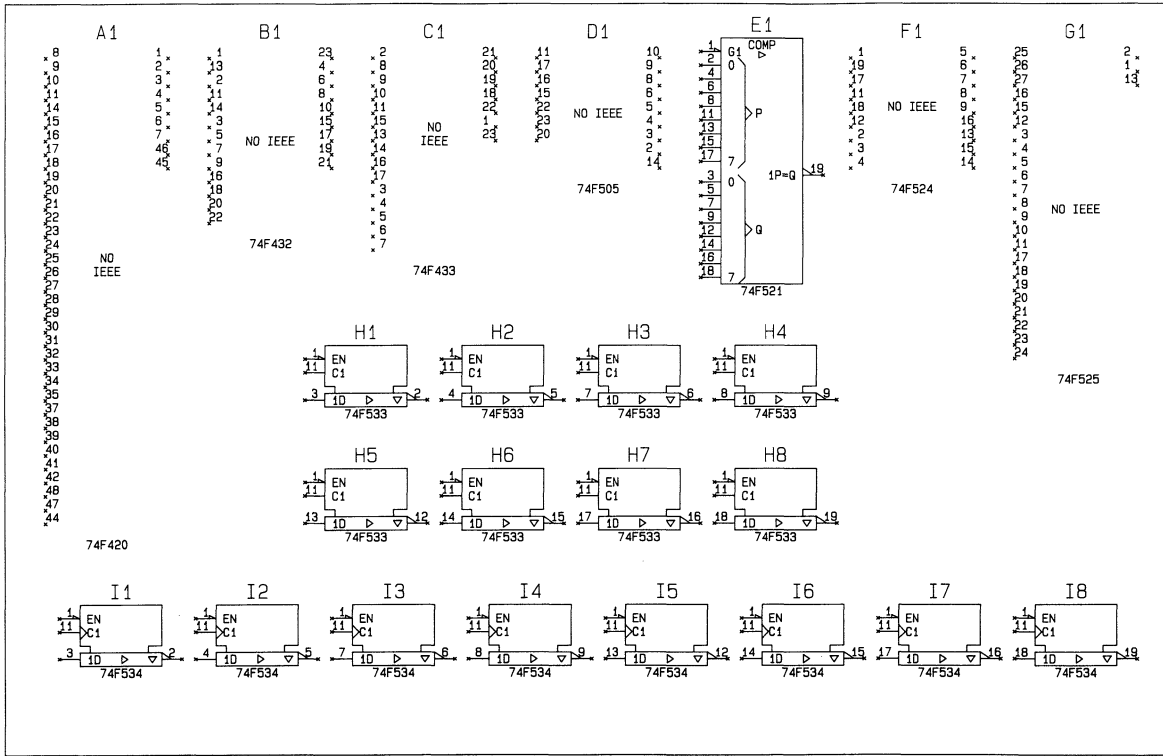
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F8E

F7

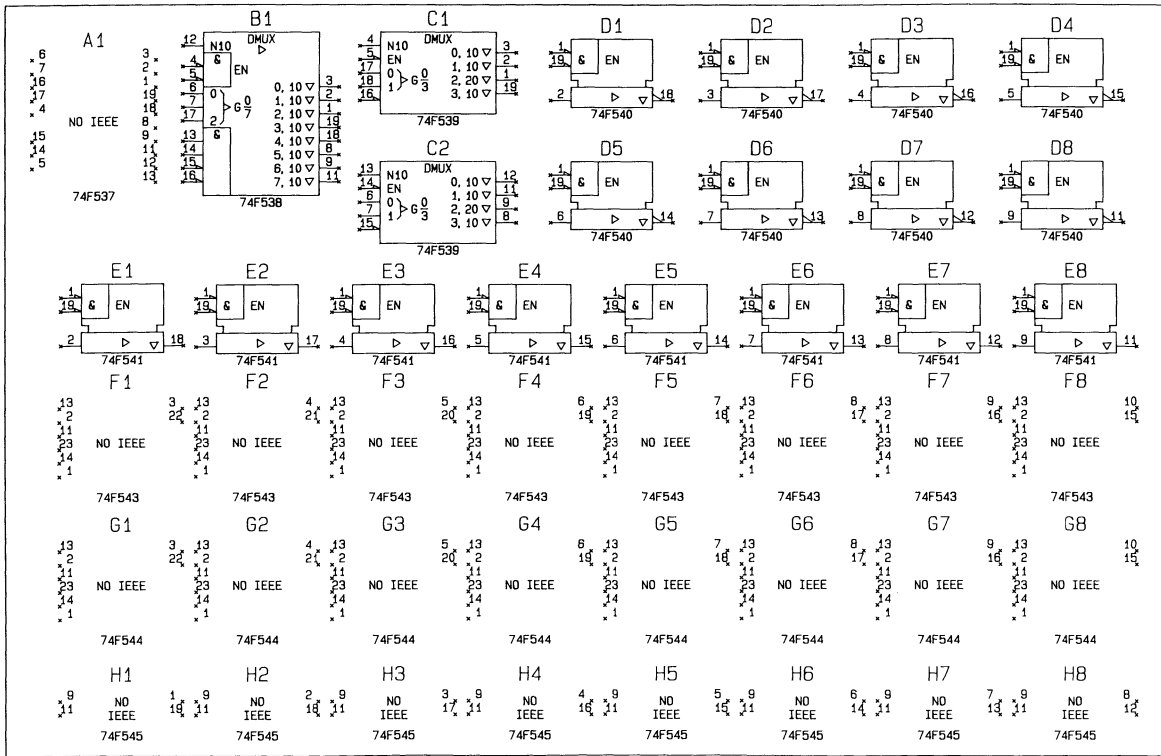
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F9E



000-0065-03

F8

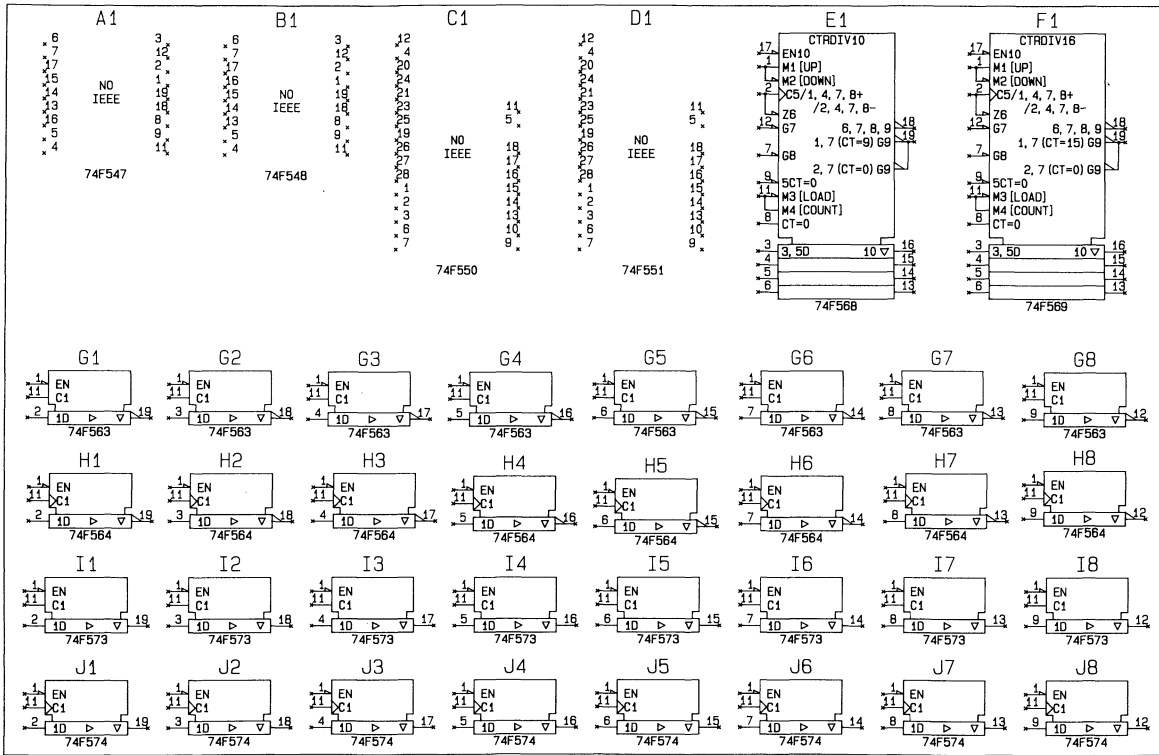


FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F10E

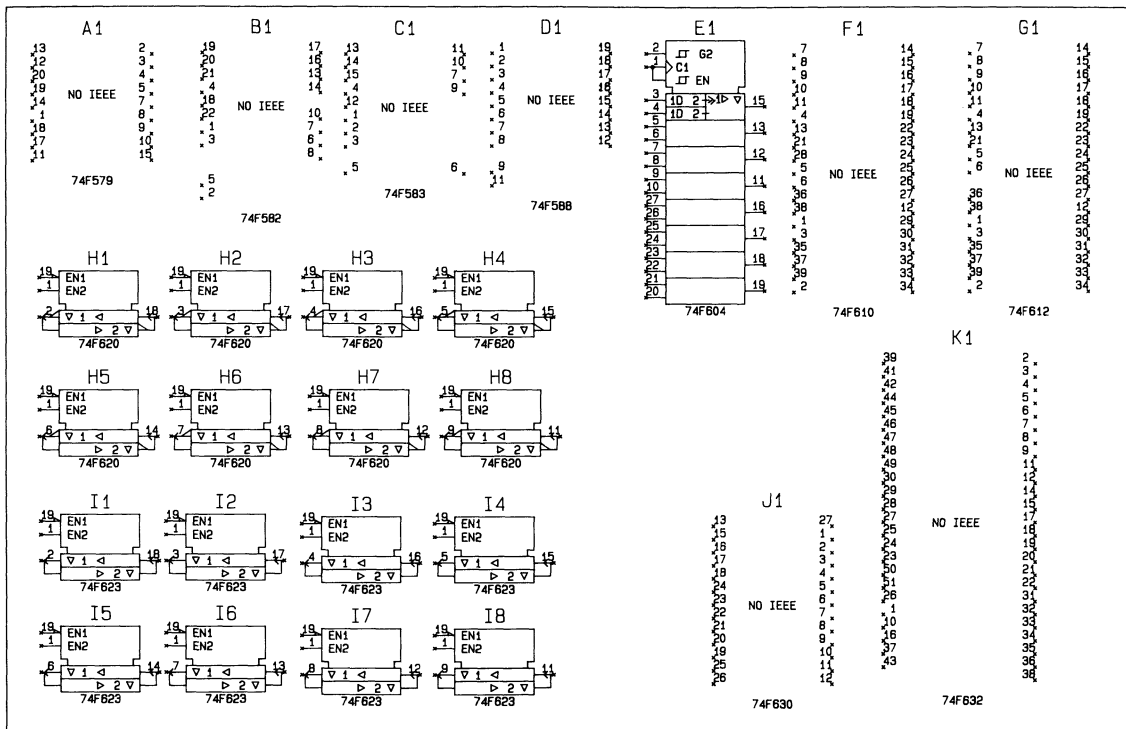
FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F11E



F10

000-0065-03

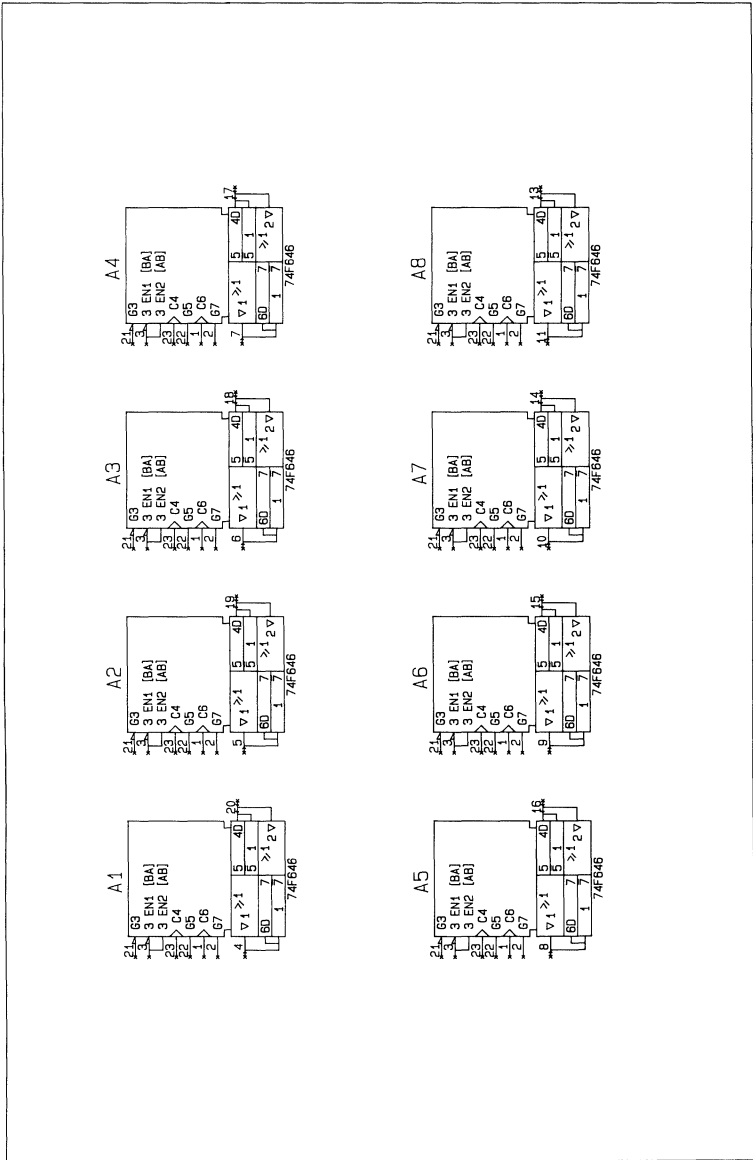


FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

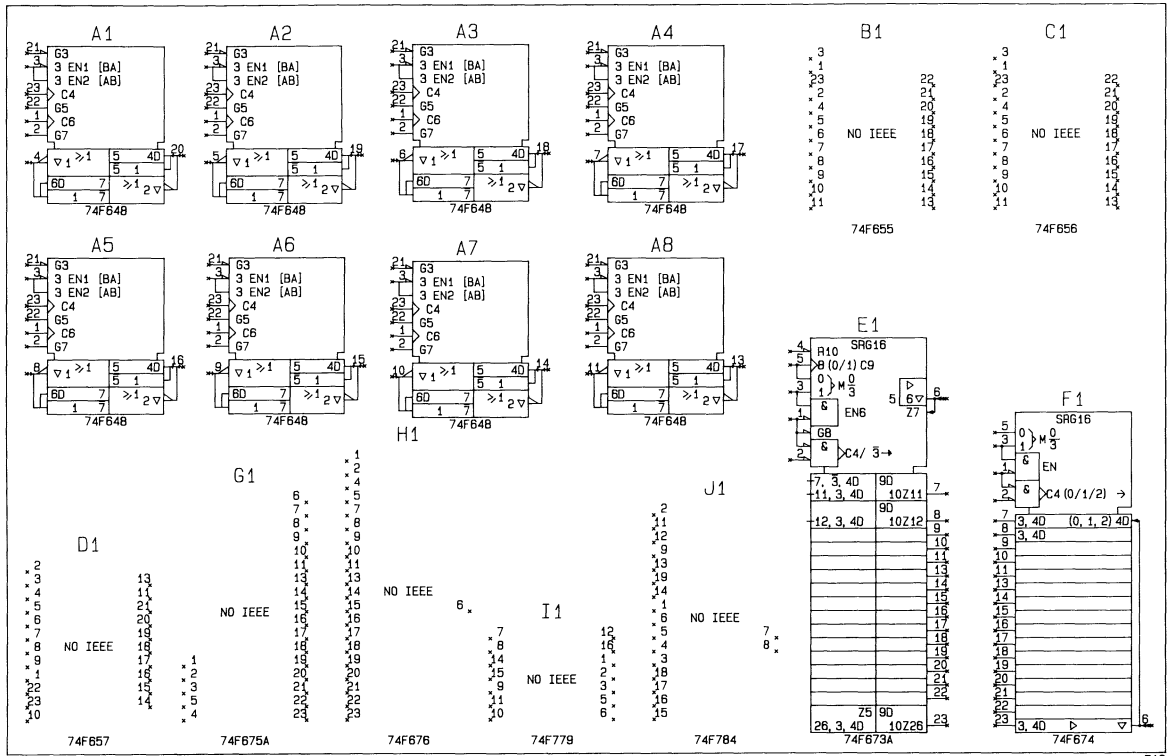
PLOT F12E

FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F13E



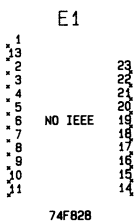
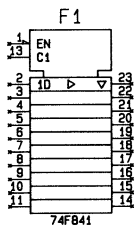
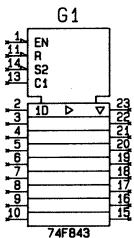
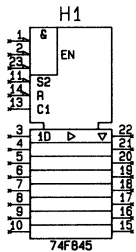
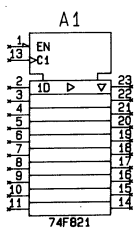
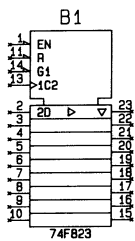
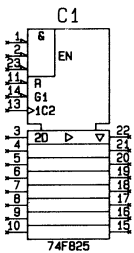
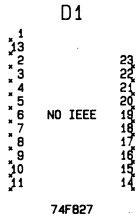
F118

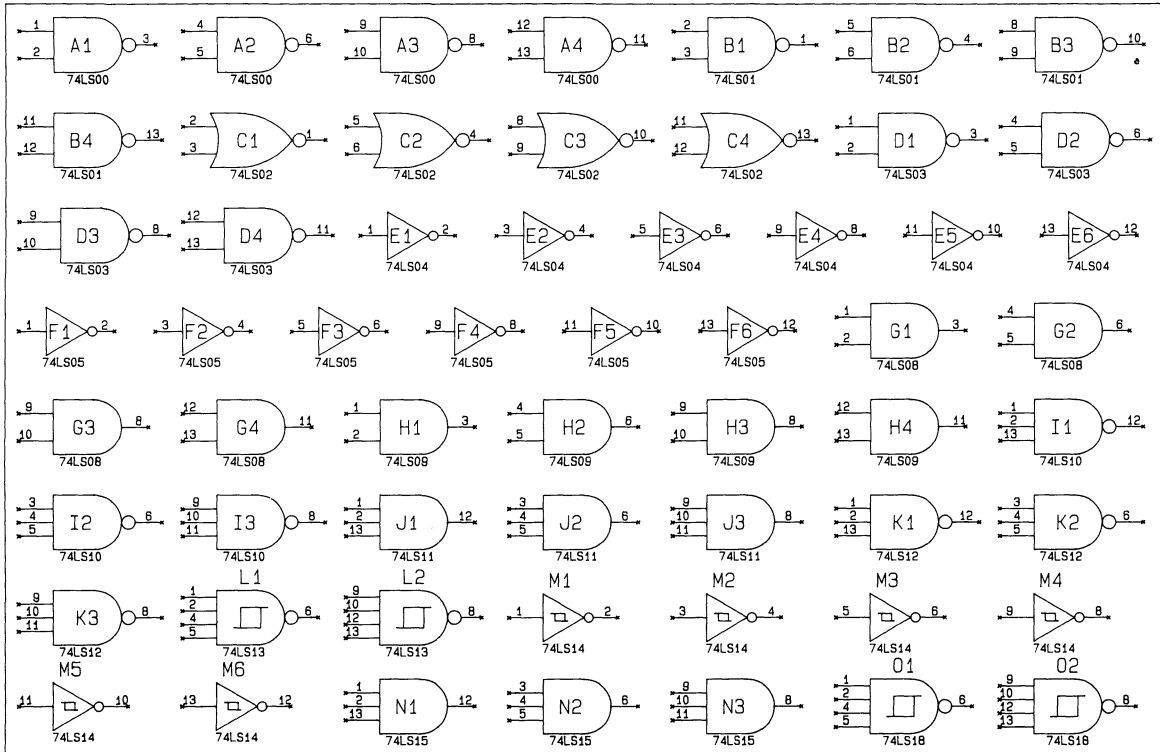


FAIRCHILD ADVANCED SCHOTTKY
TTL COMPONENT SYMBOL PLOTS

PLOT F15E

F13



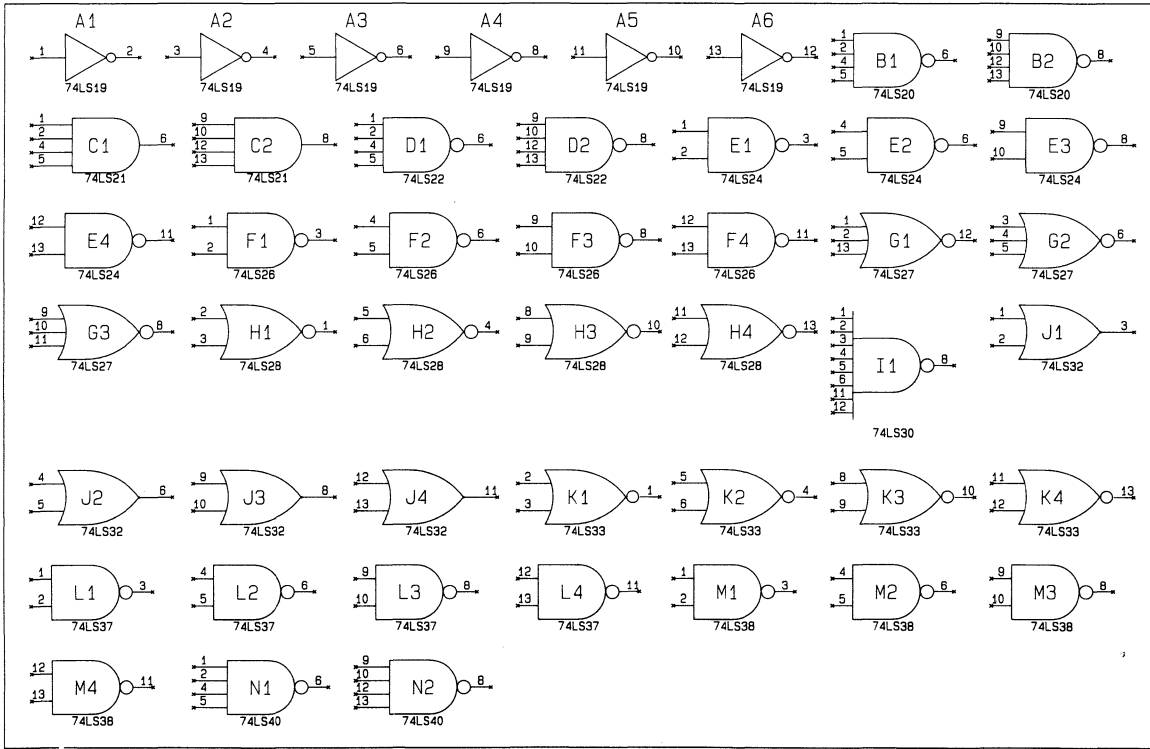


LS1

LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS
PLOT LS1

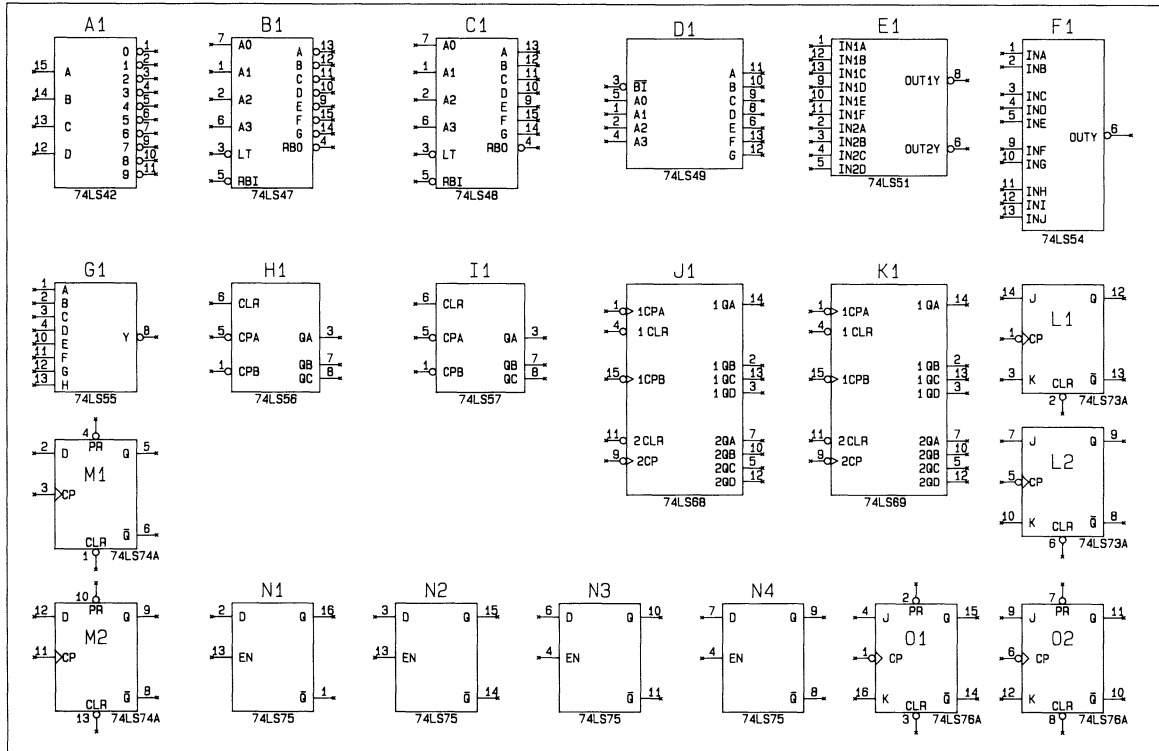
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

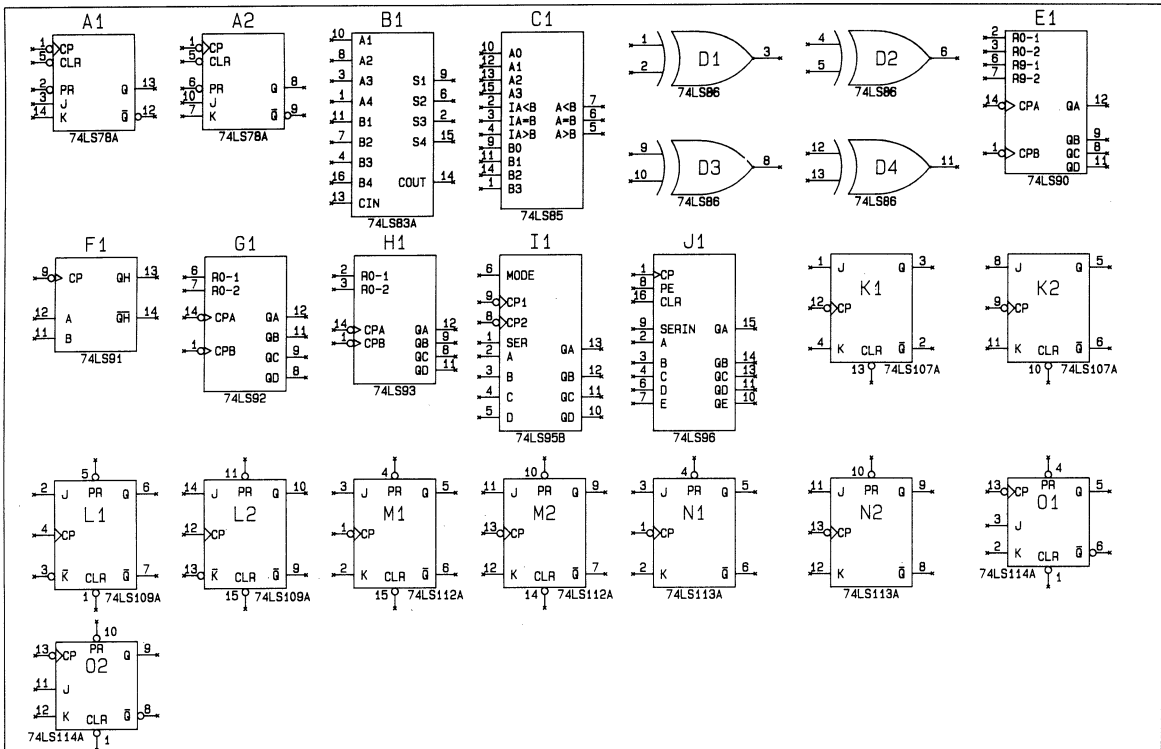
PLOT LS2



LS2

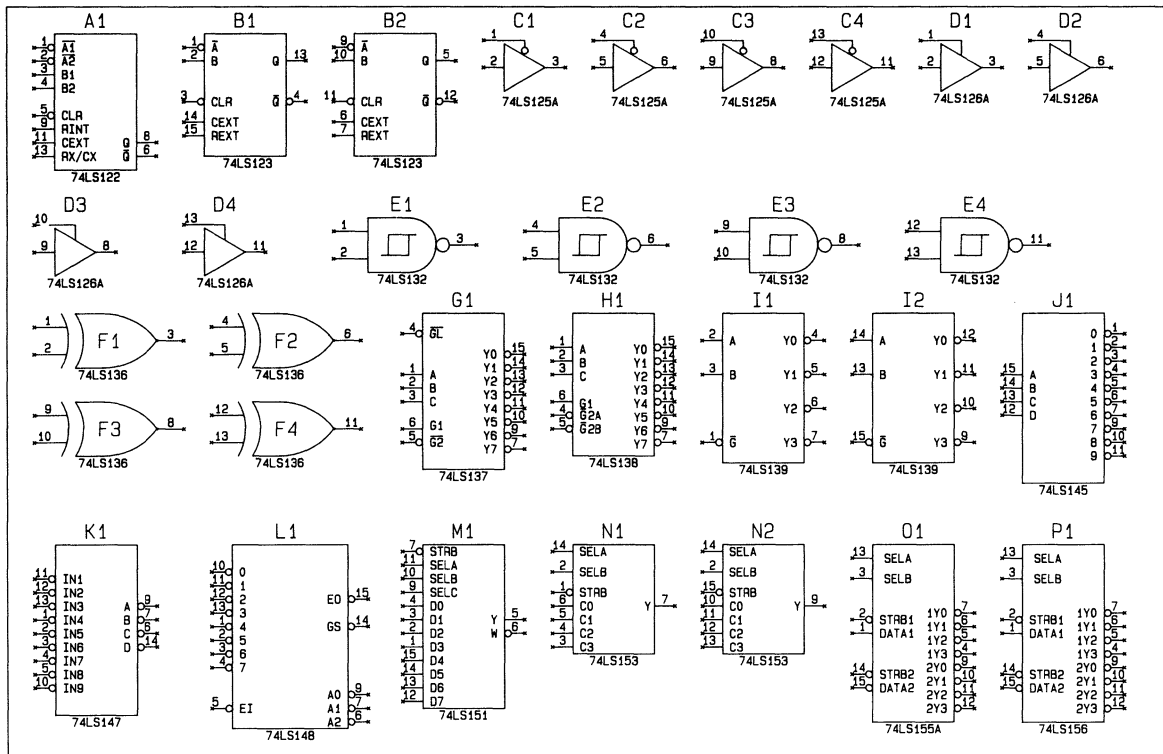
000-0065-03





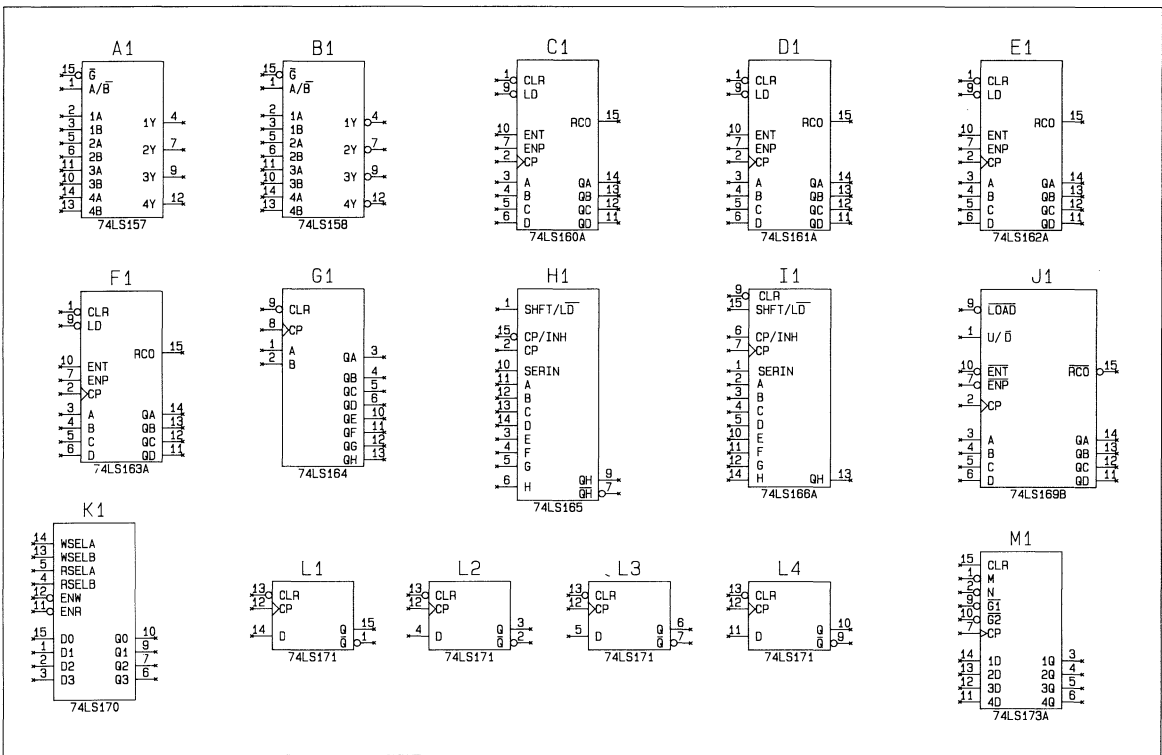
LS4

000-0065-03

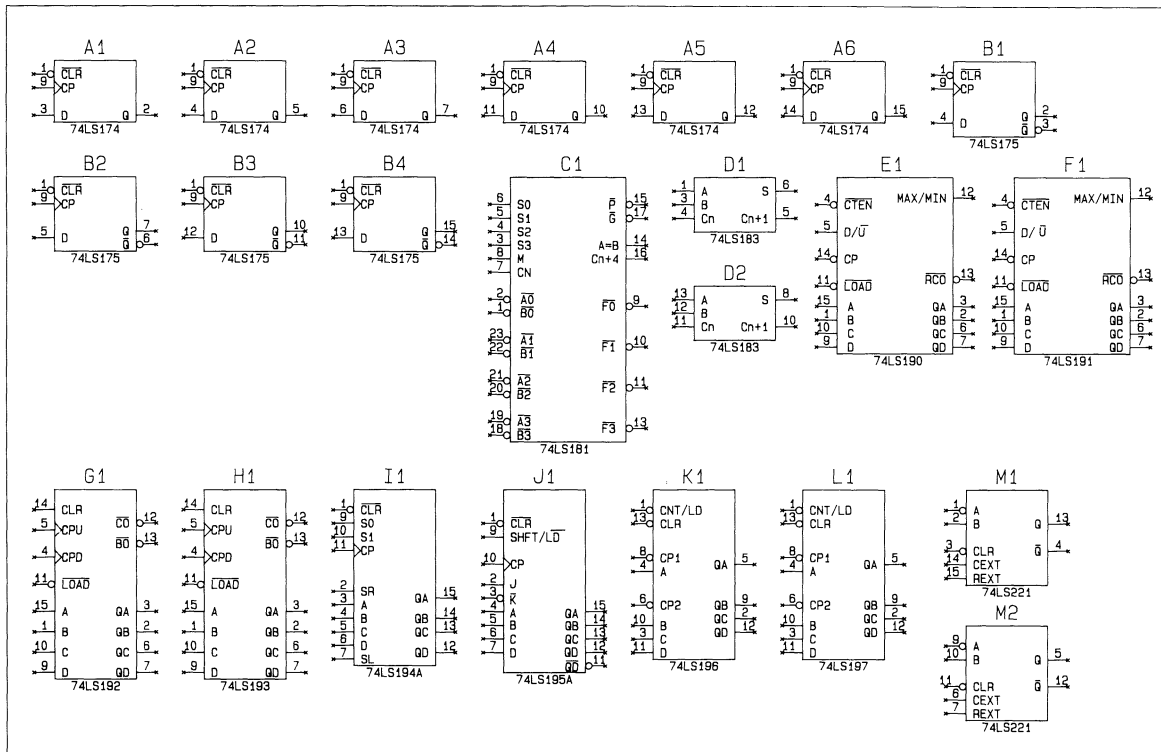


LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT L55

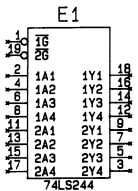
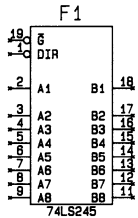
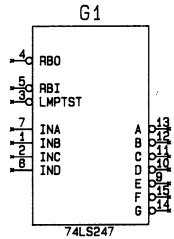
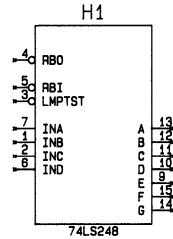
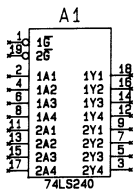
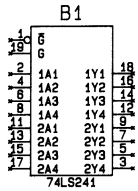
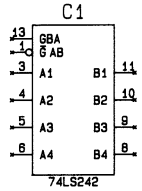
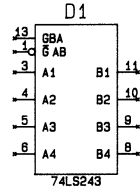


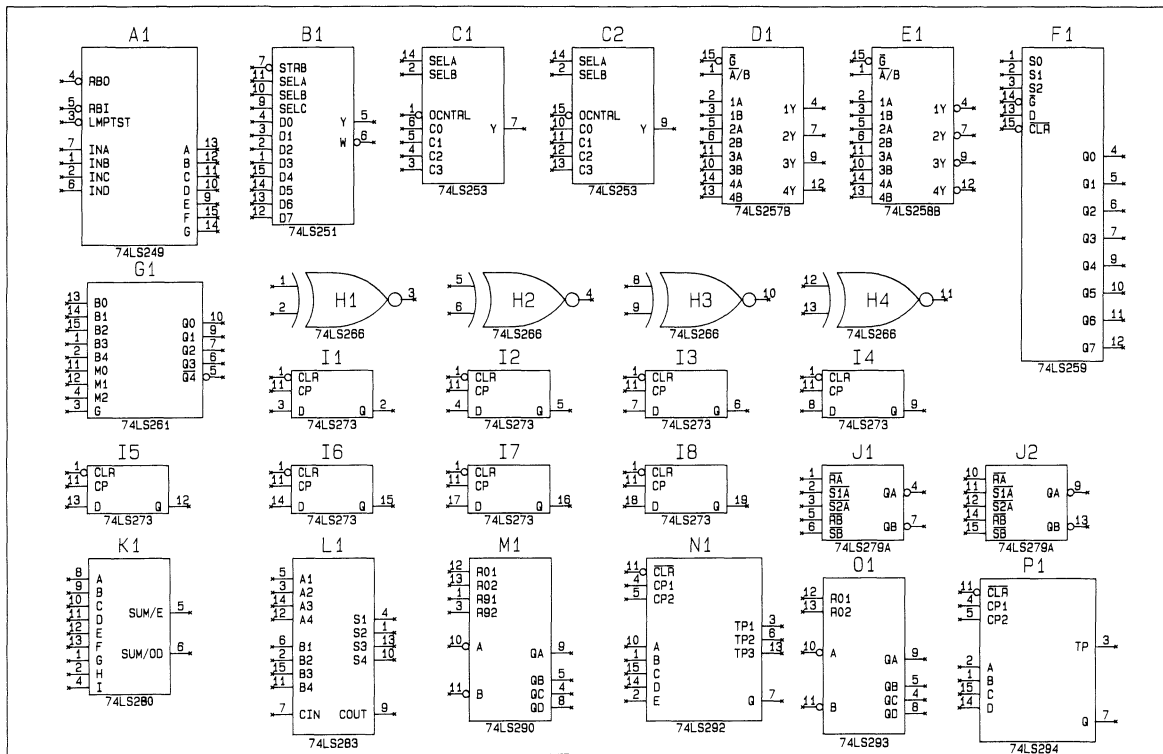
000-0065-03



LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

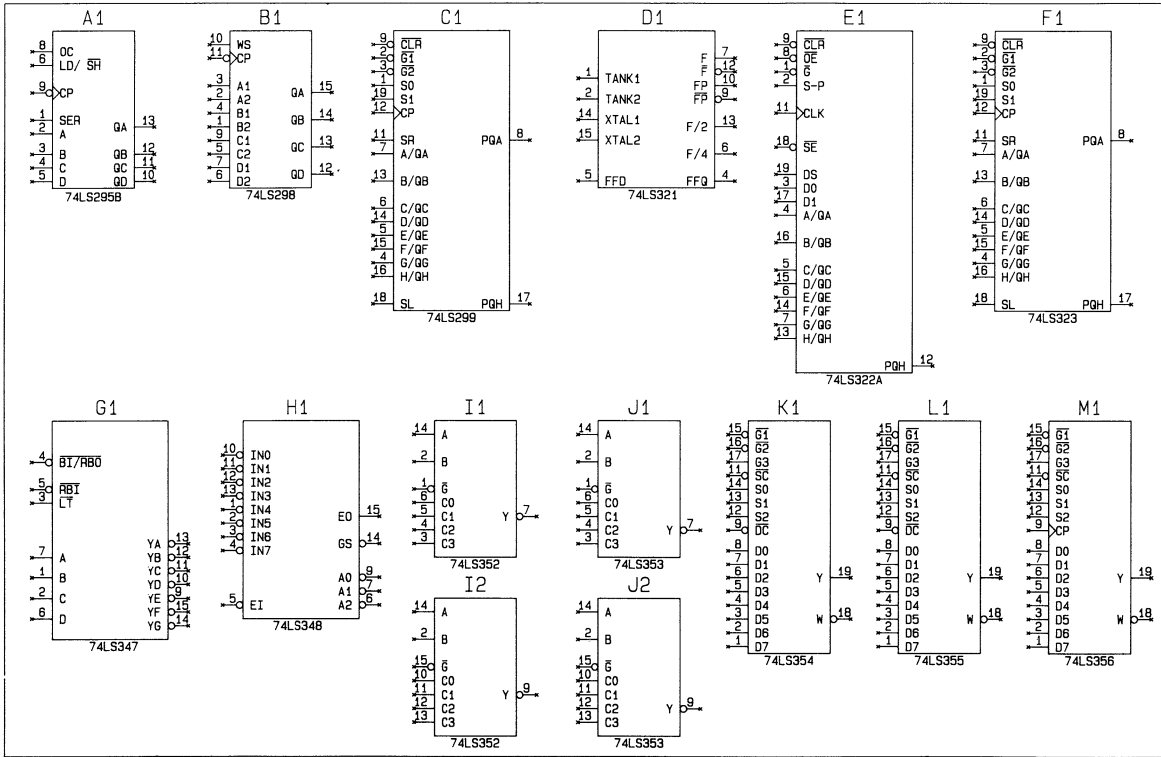
PLOT LST



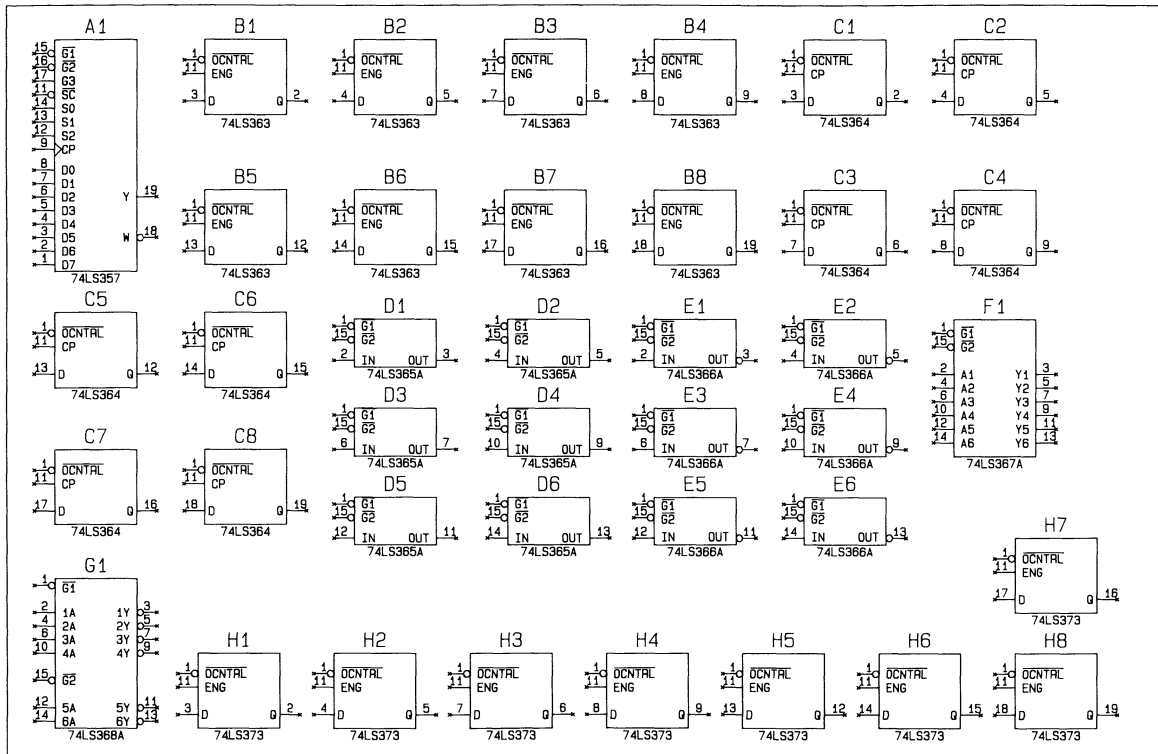


LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT L59



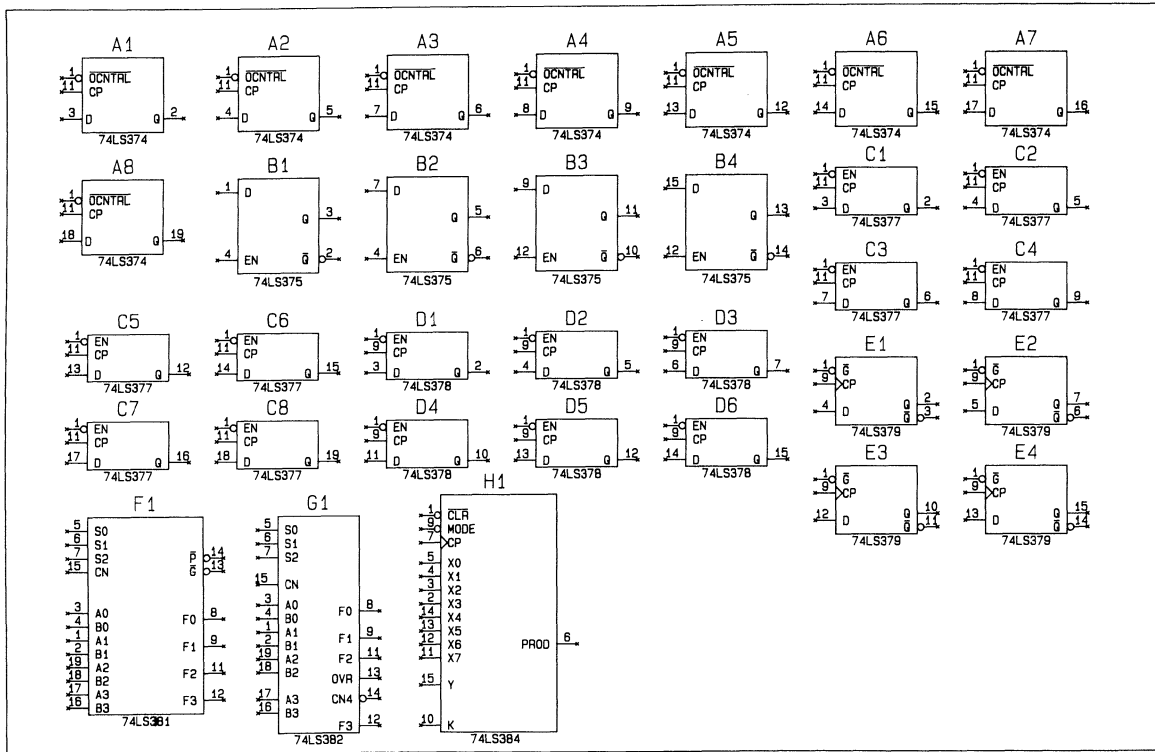
LS10



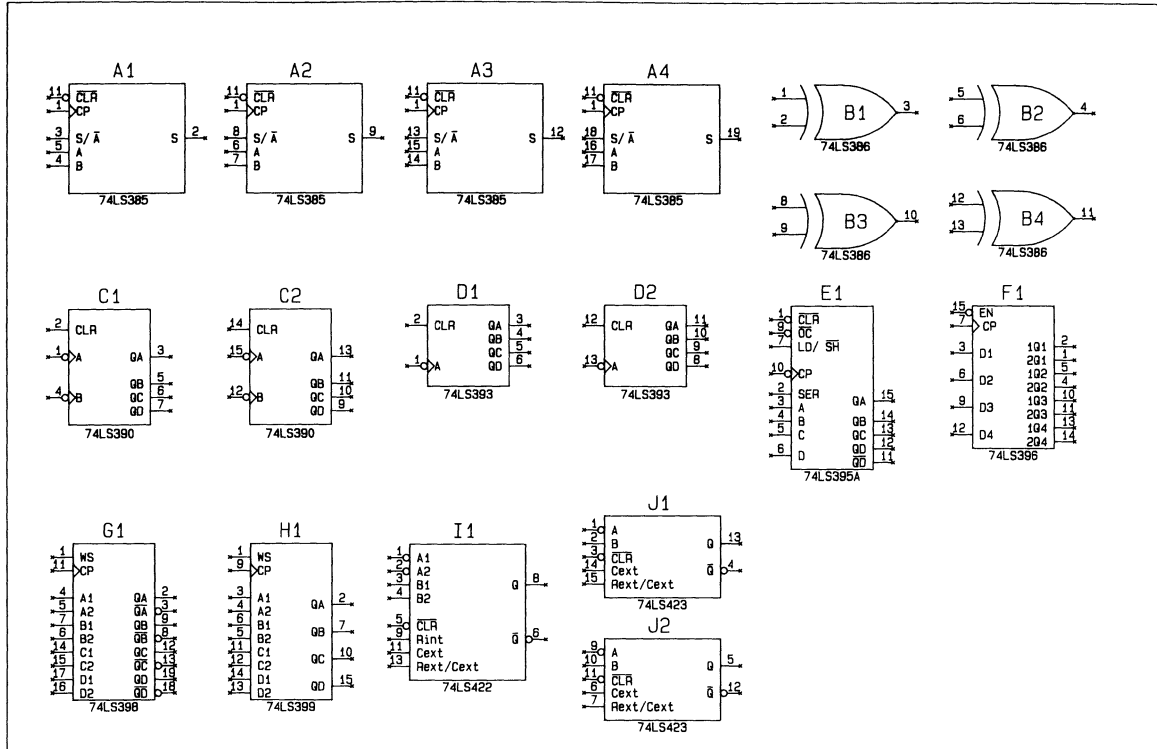
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS11

Schematic Symbols 269



LS12



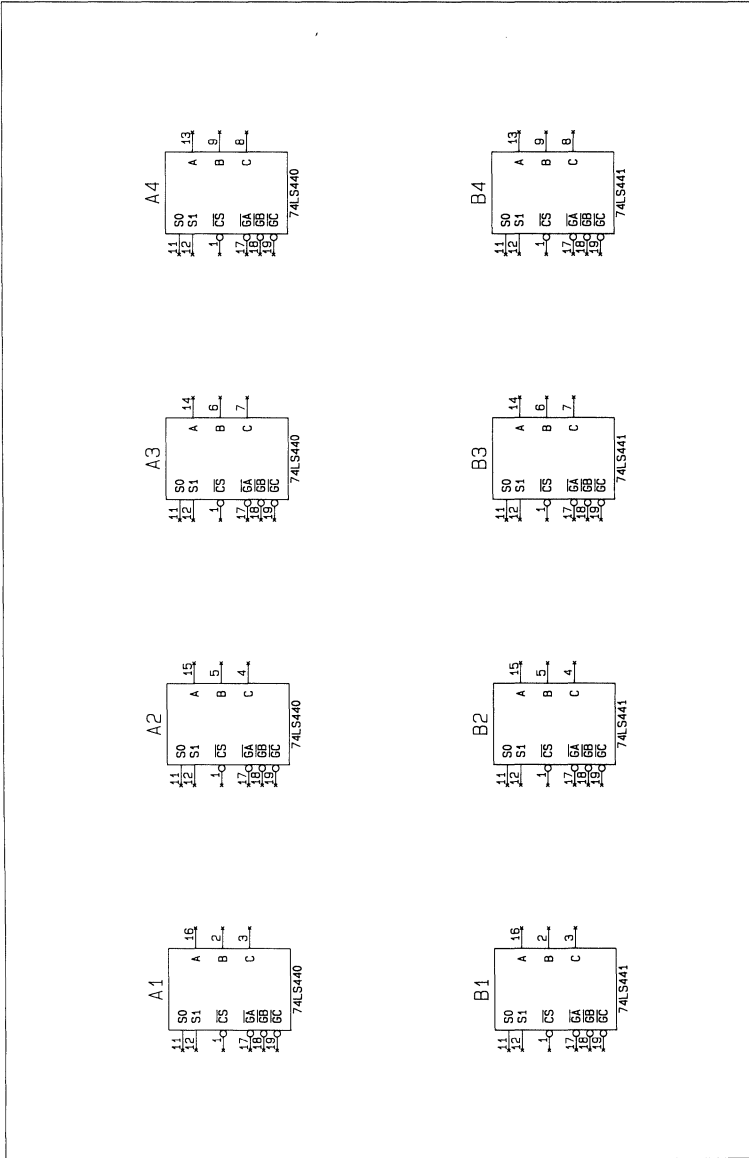
LS13

LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS PLOT LS13

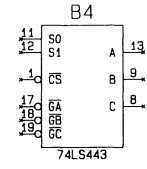
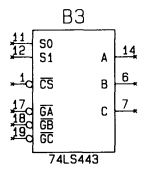
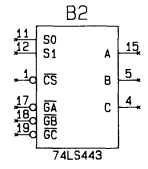
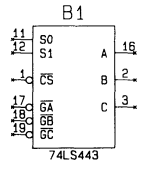
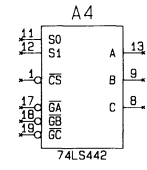
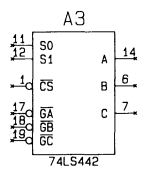
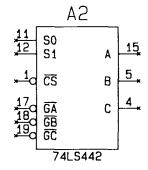
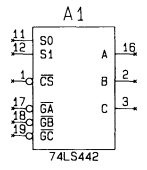
Schematic Symbols 271

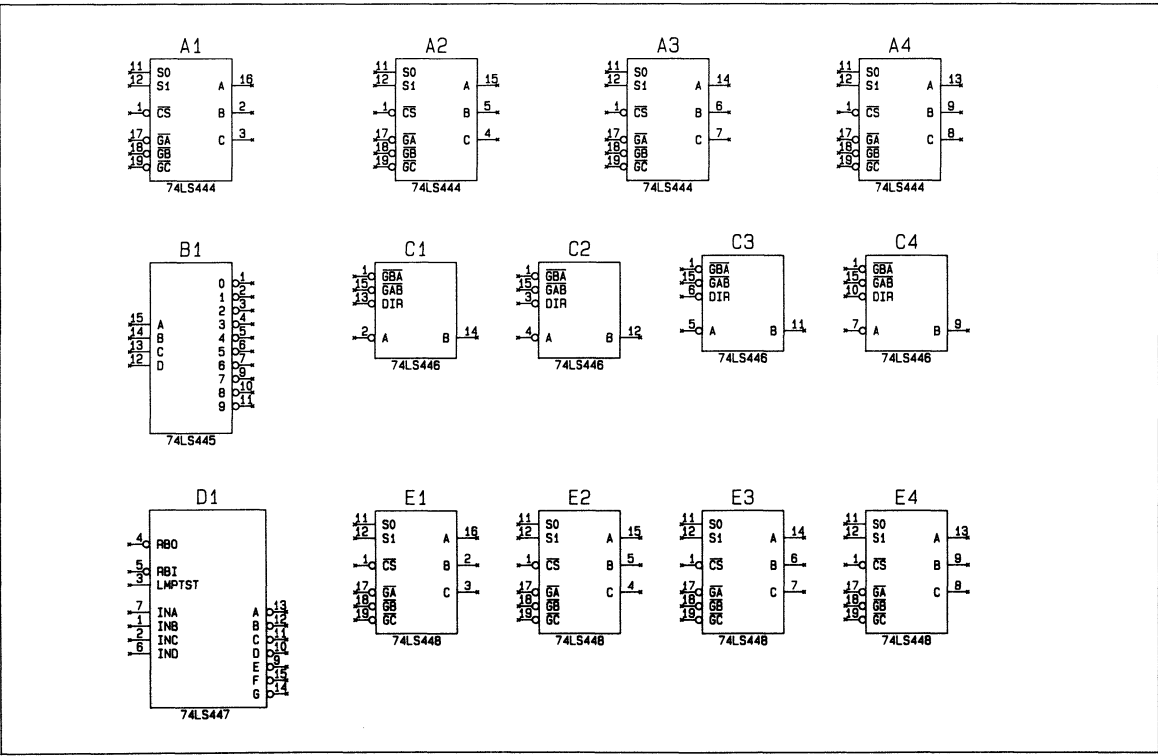
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS14



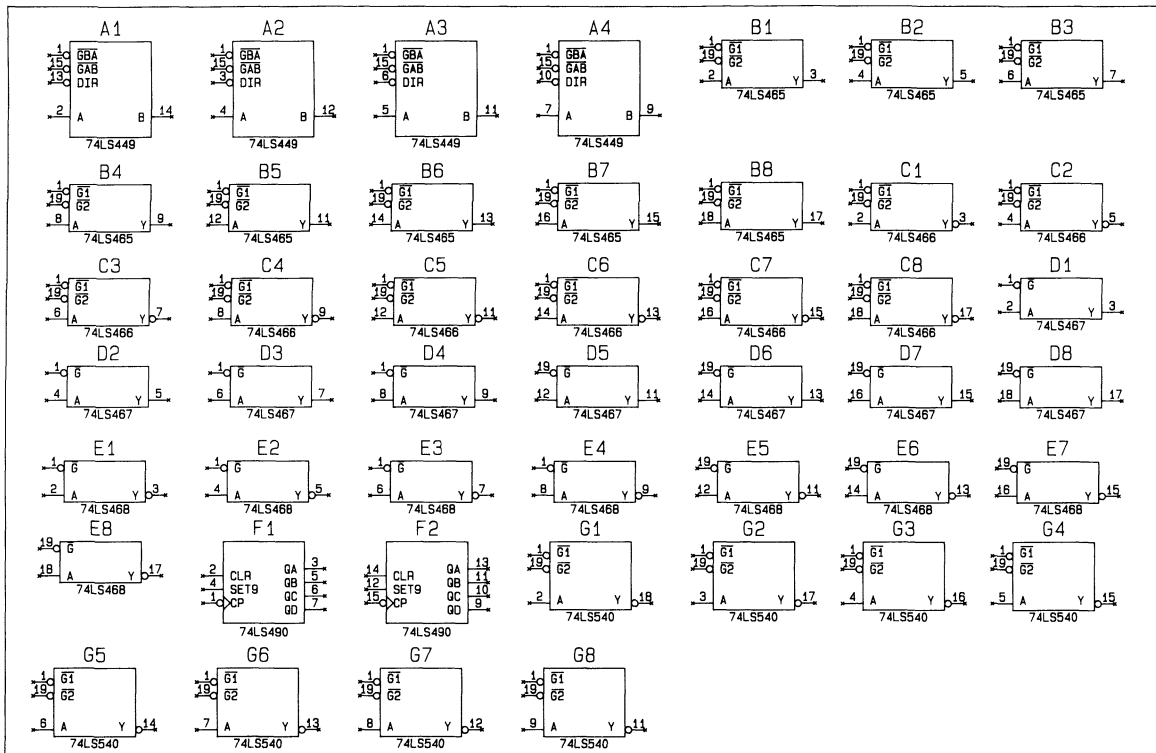
LS14





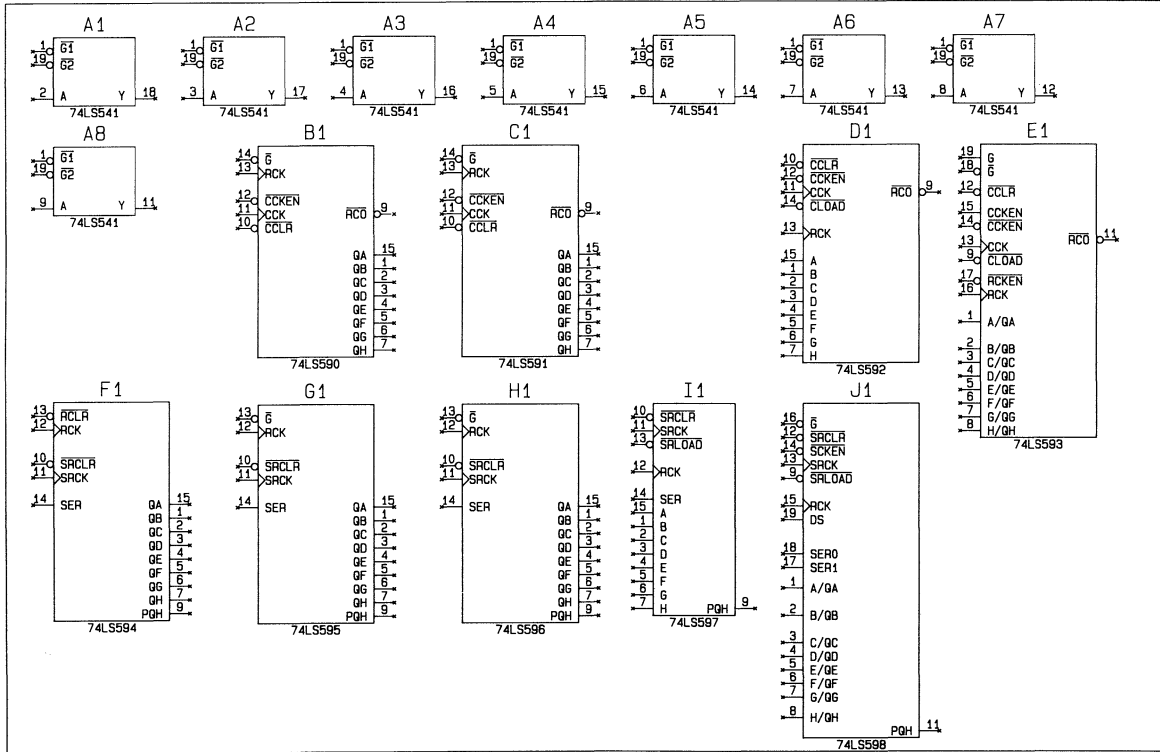
000-0065-03

LS15



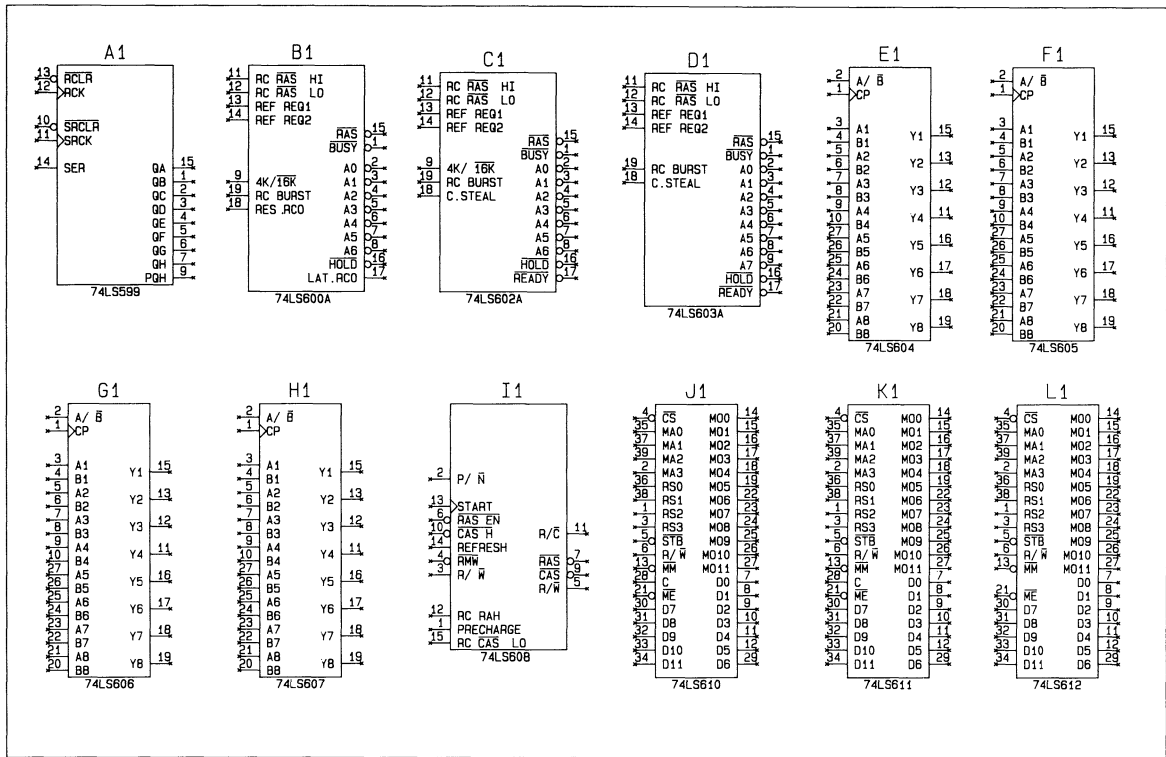
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

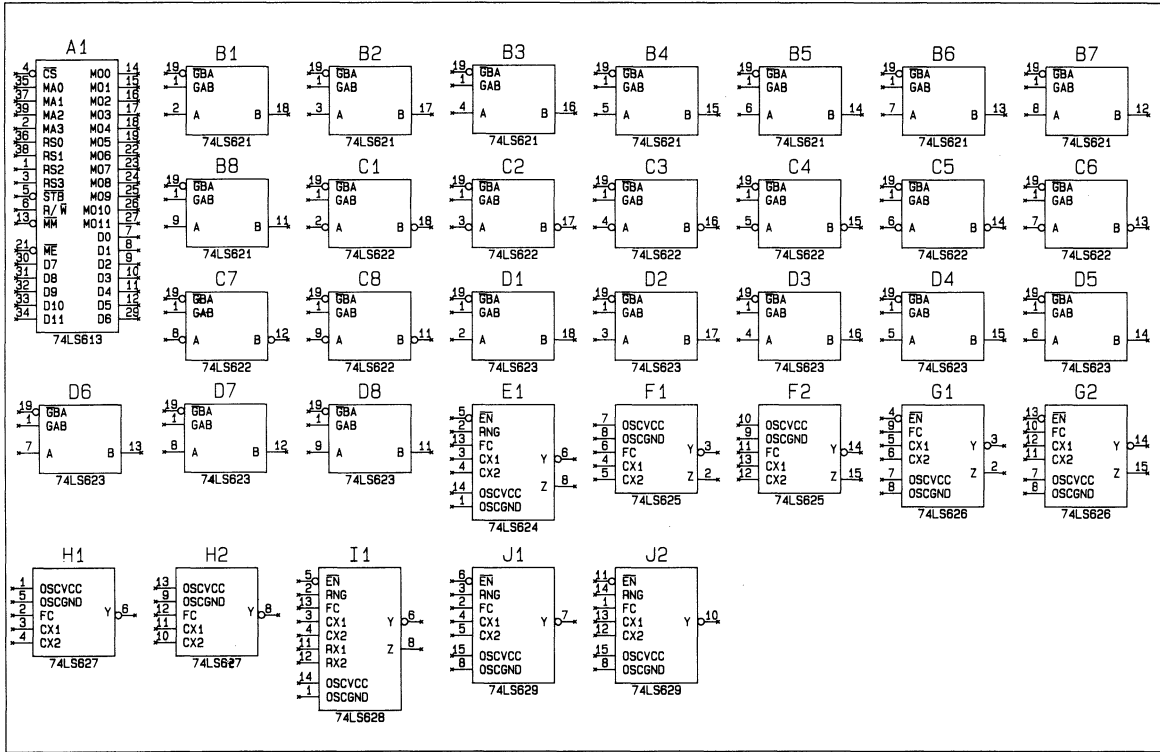
PLOT LS18



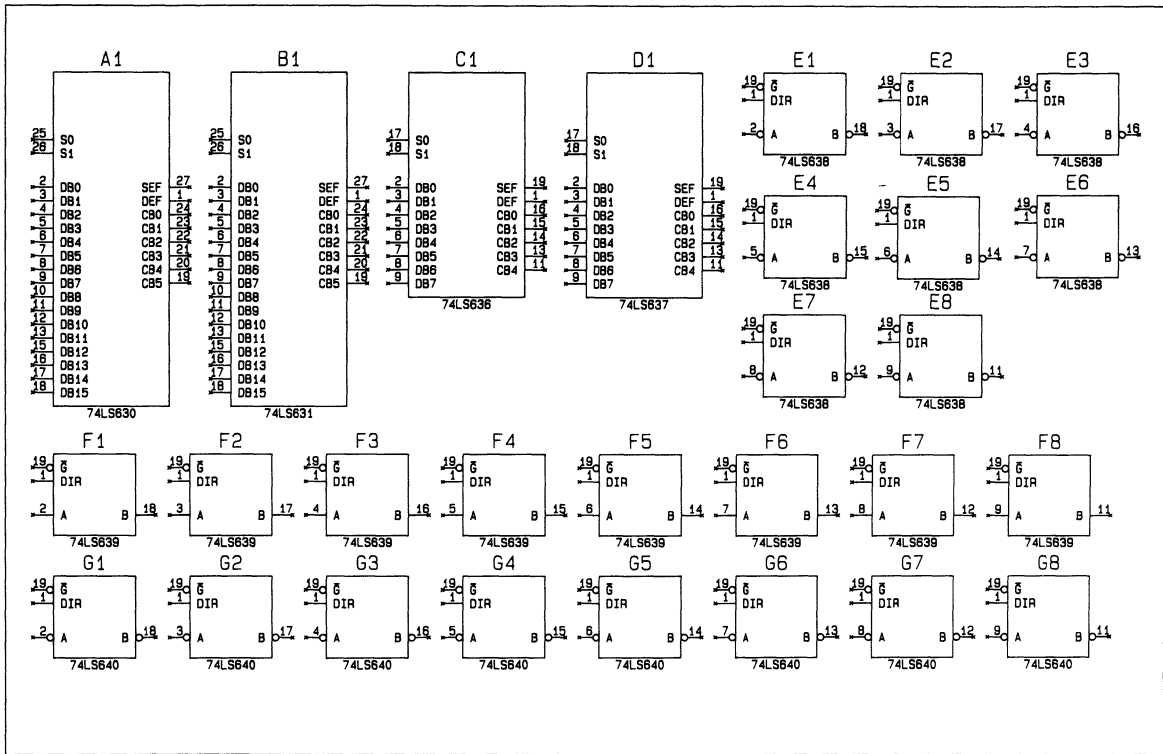
LS17

000-0065-03





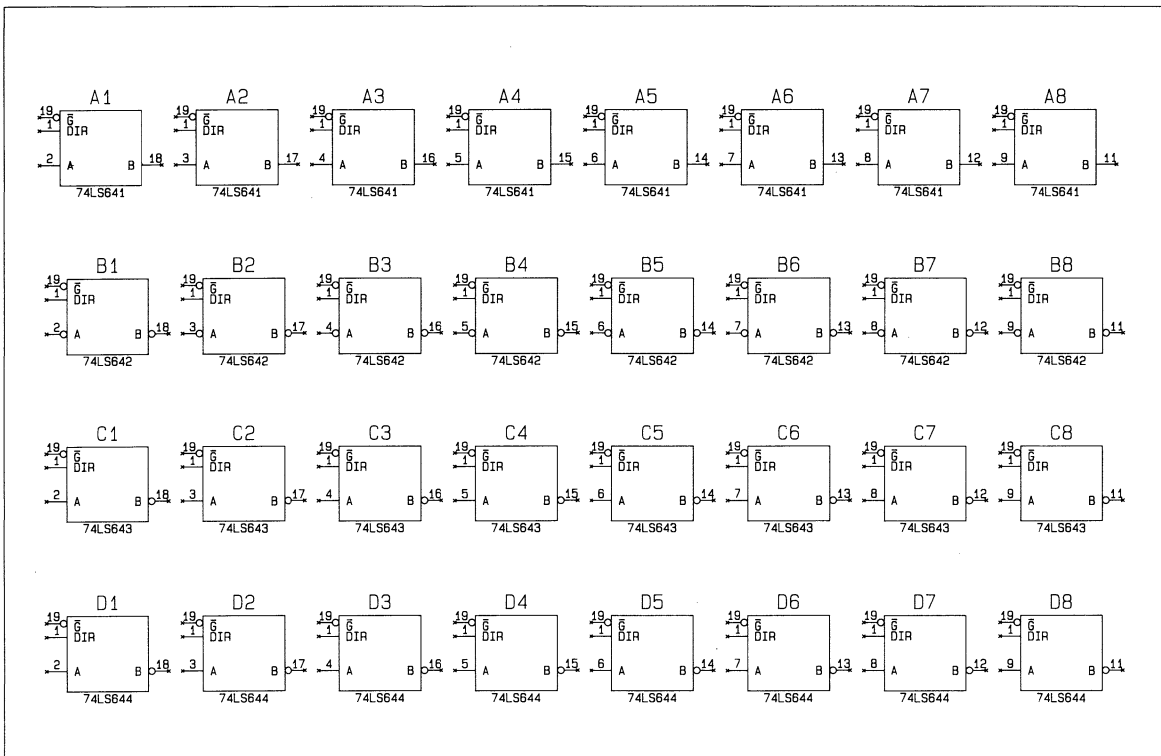
000-0065-03



LS20

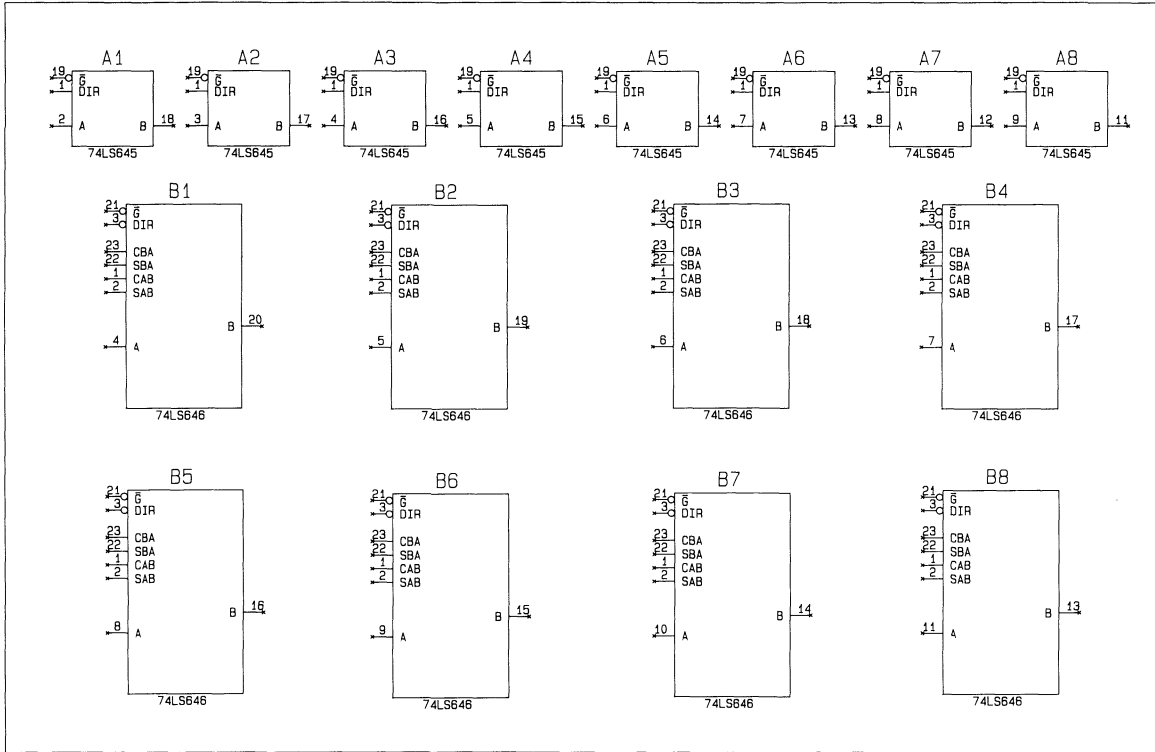
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS21



LS21

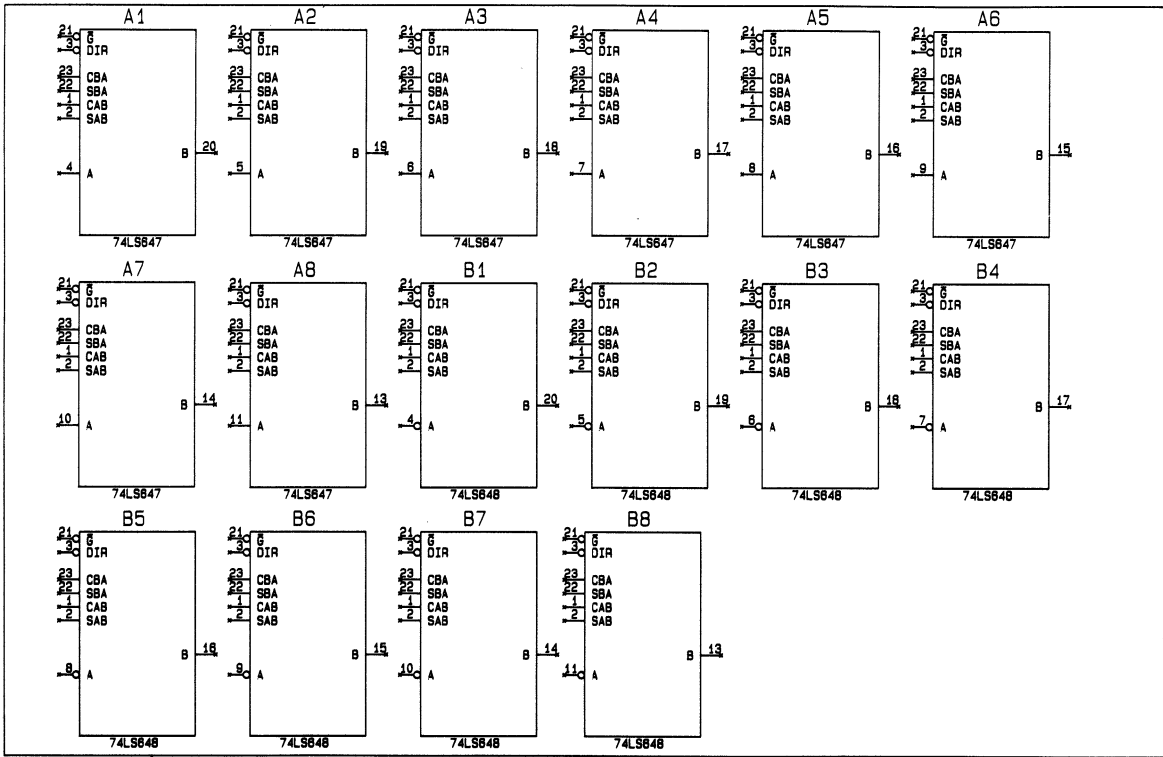
000-0065-03



LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

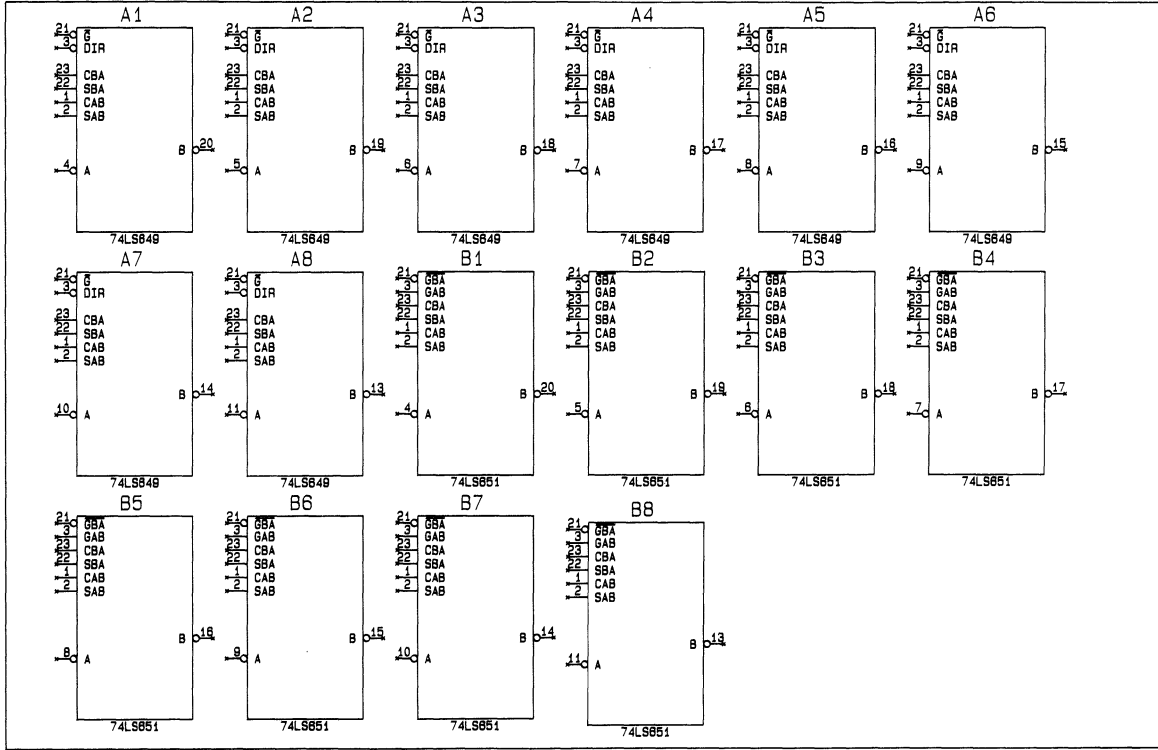
PLOT LS23

Schematic Symbols 281



000-0065-03

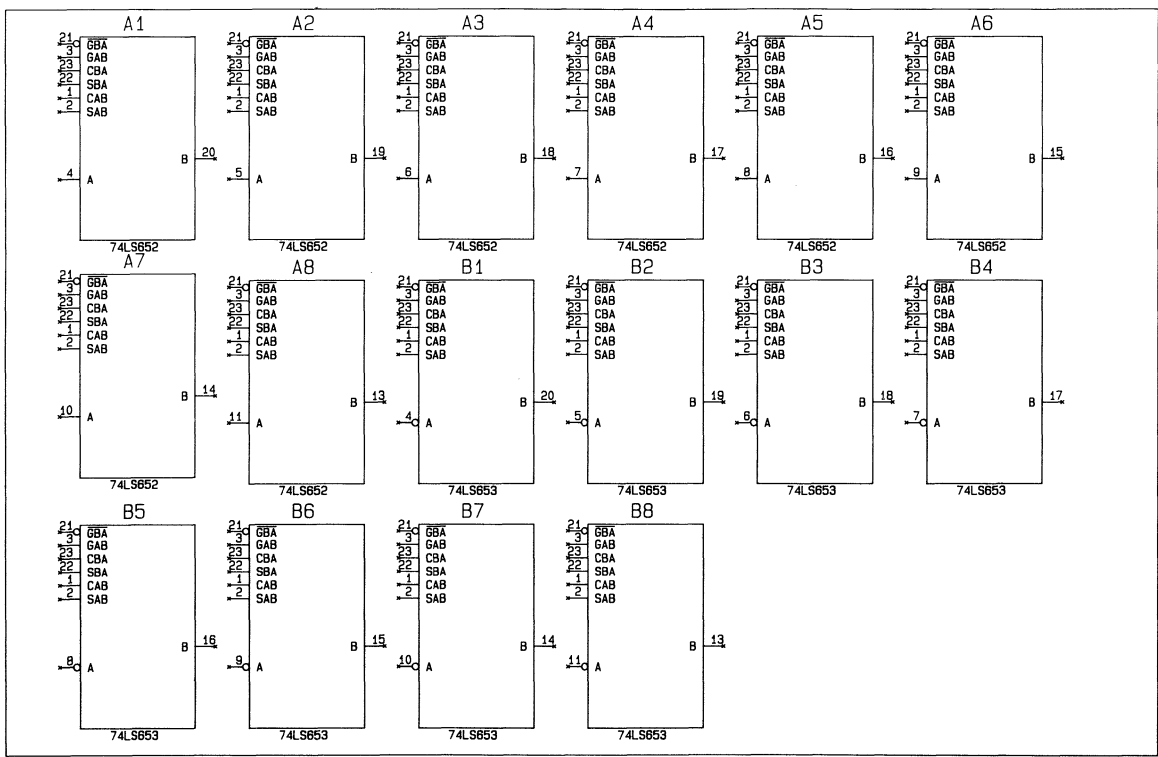
LS23



LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

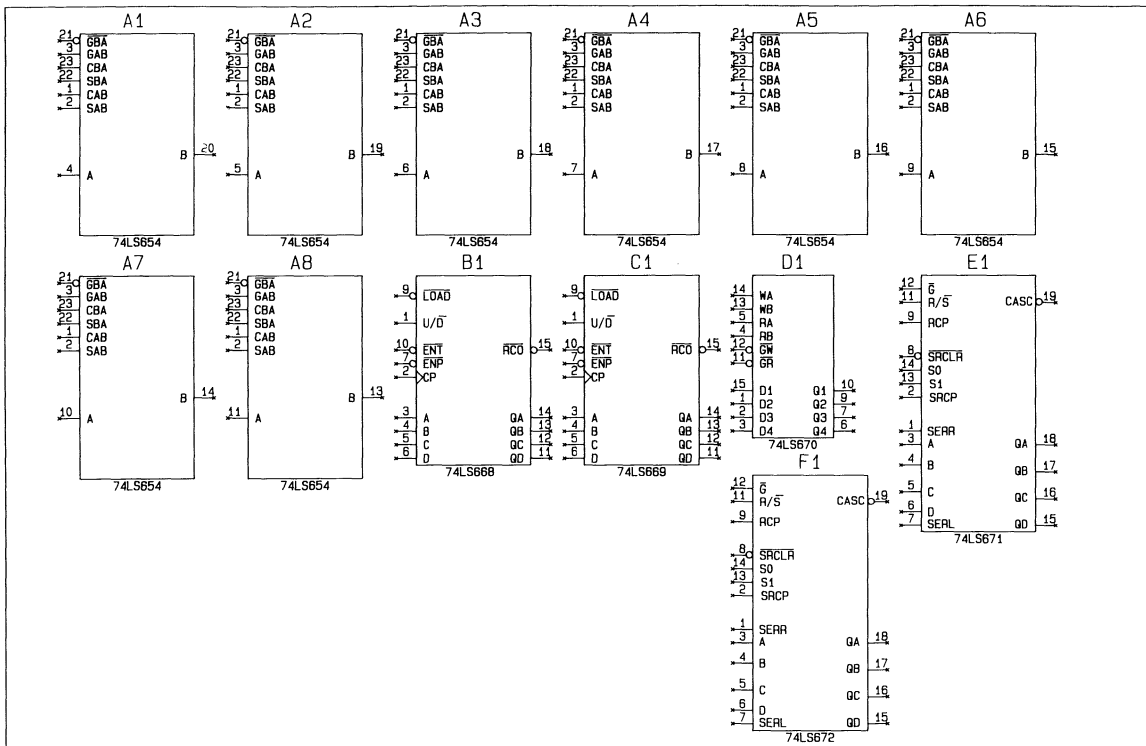
PLOT LS25

LS24



000-0065-03

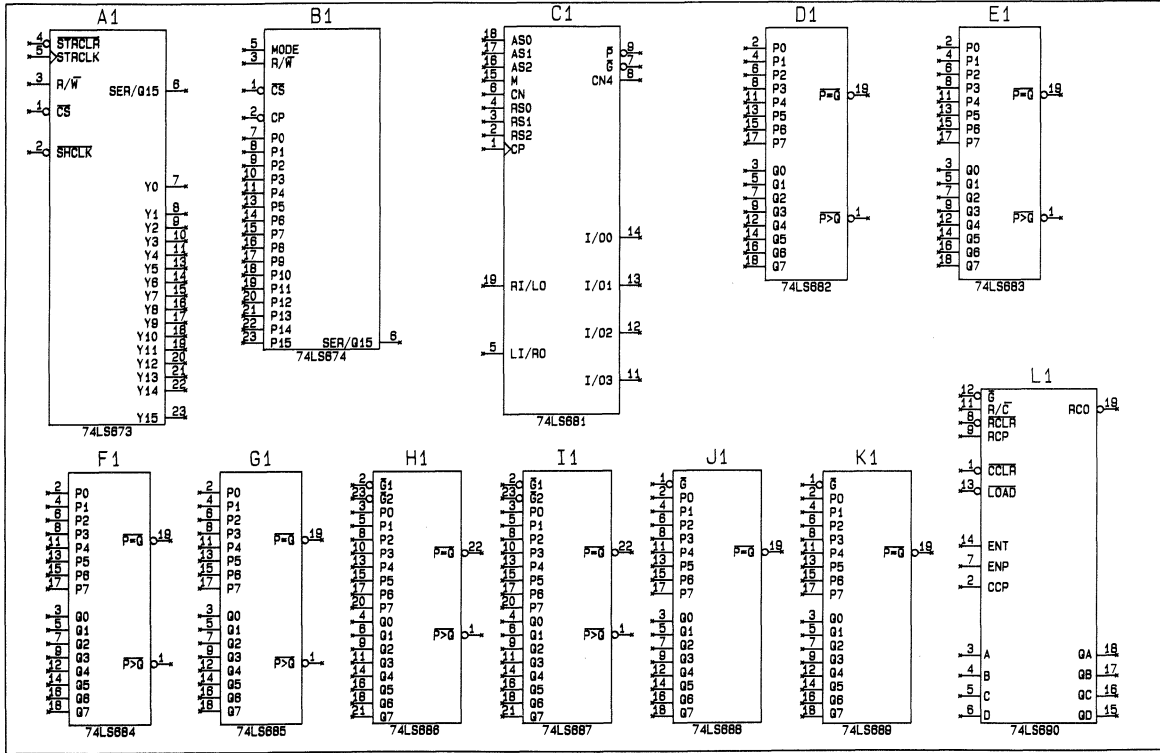
LS26



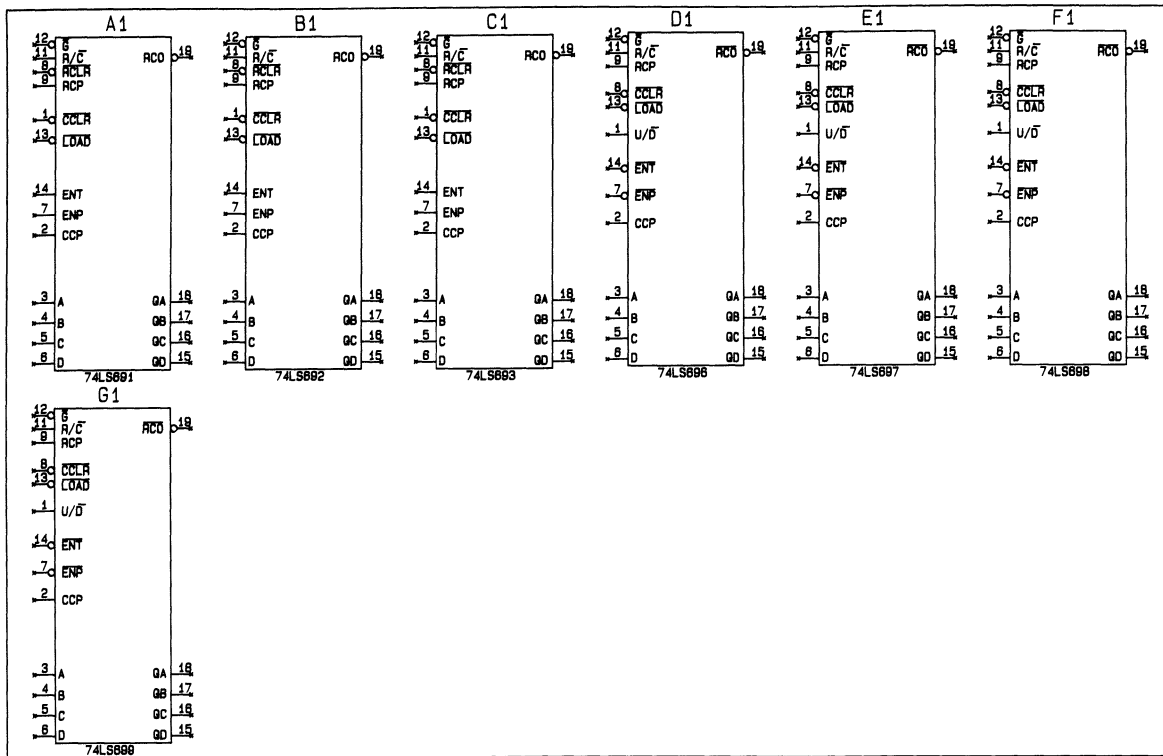
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS27

Schematic Symbols 285



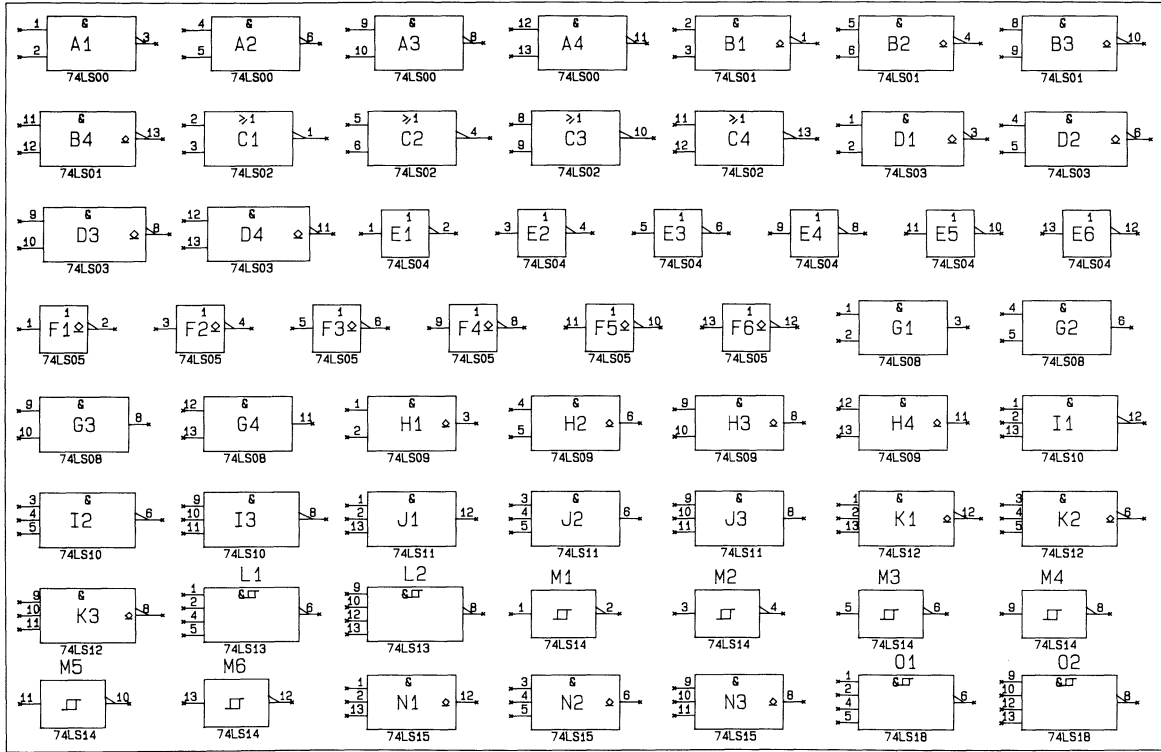
000 - 0065 - 03



LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

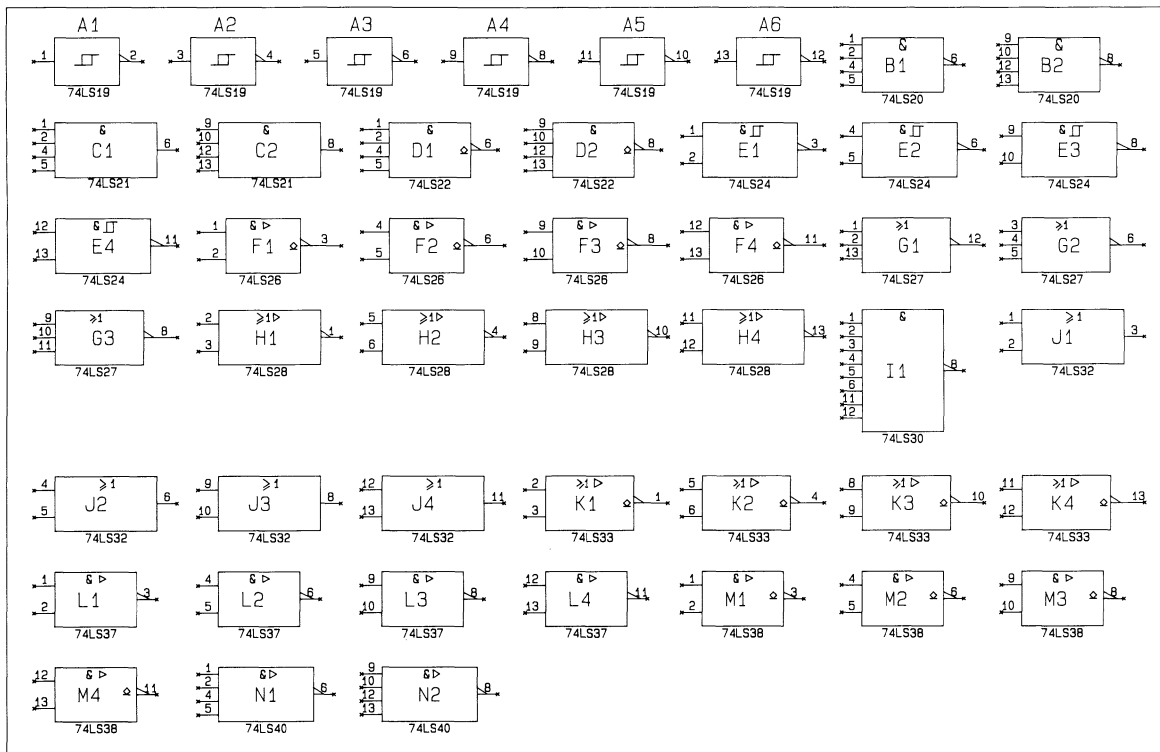
PLOT LS29

Schematic Symbols 287



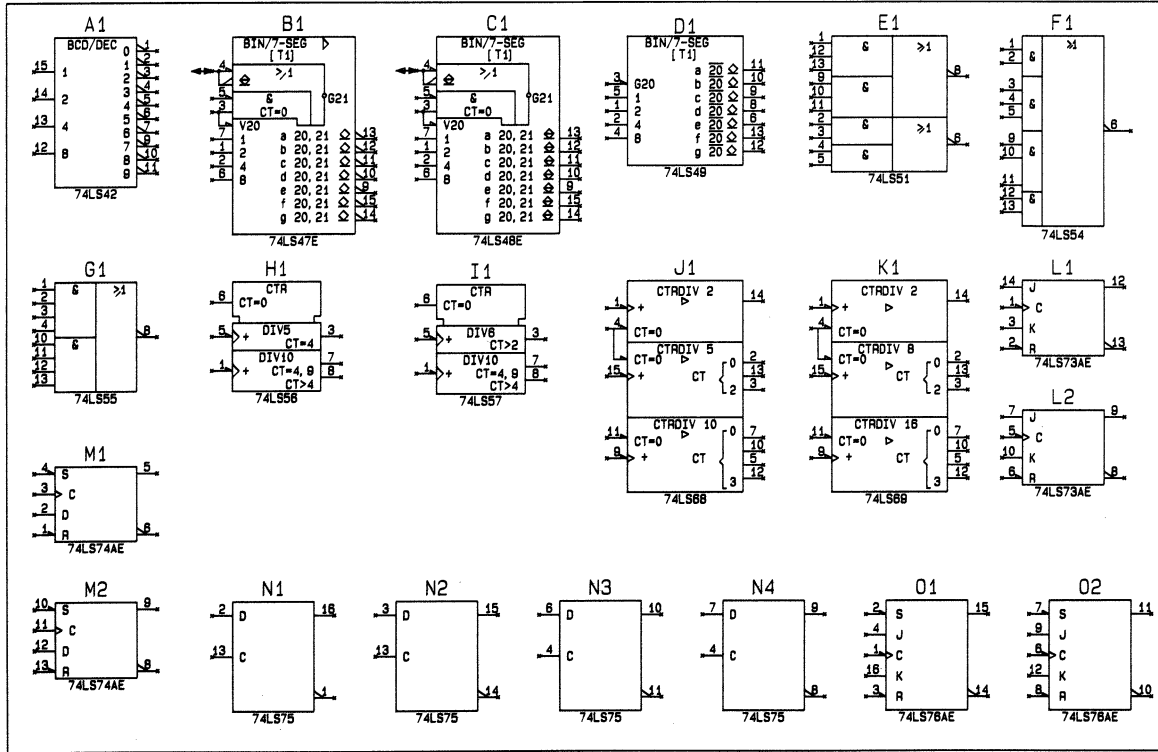
LS1

000-0065-03



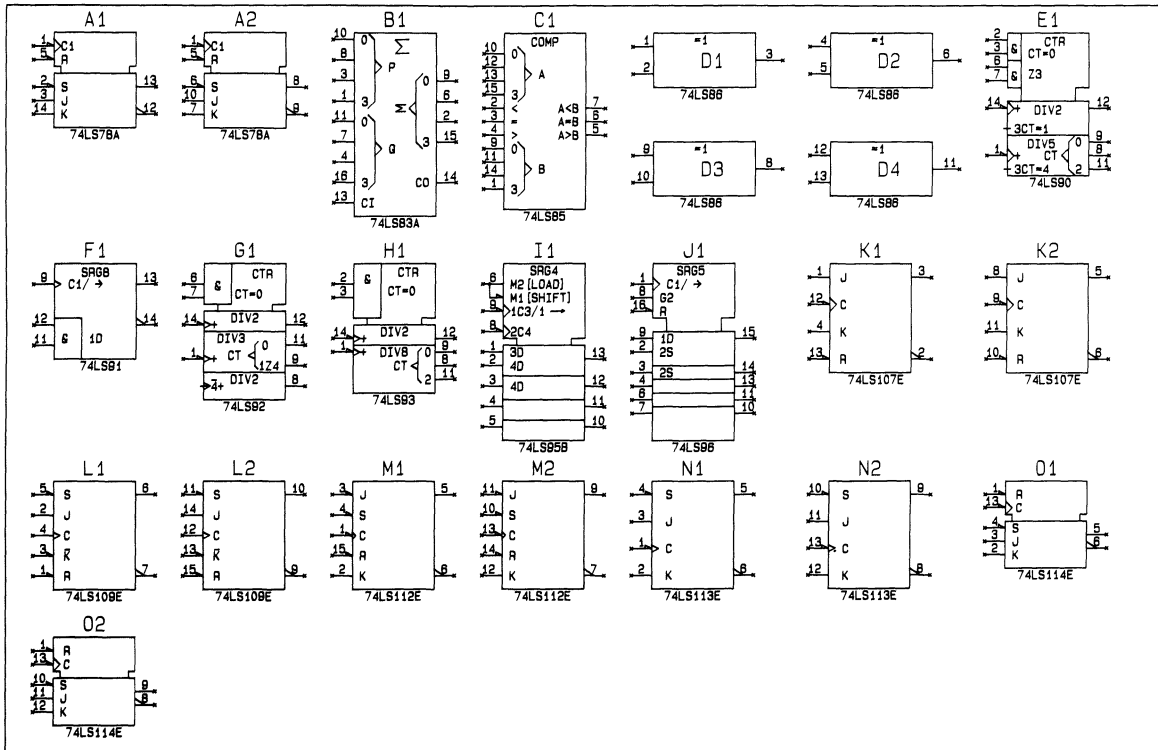
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS2E



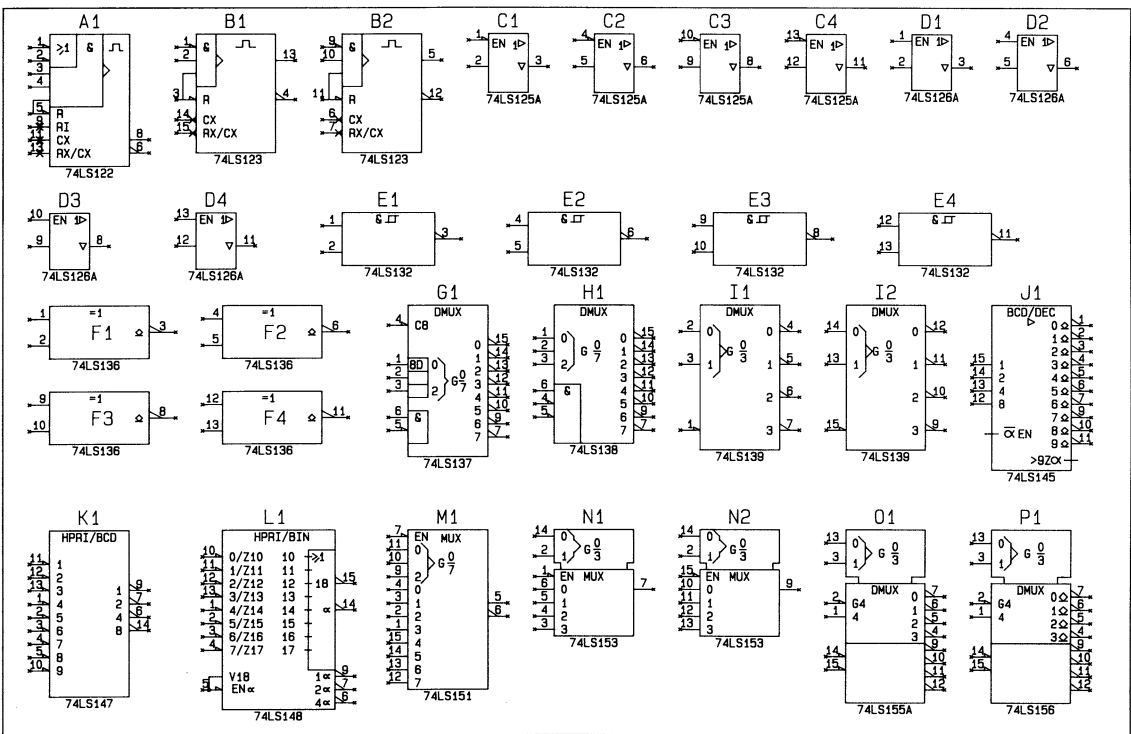
L53

000-0065-03

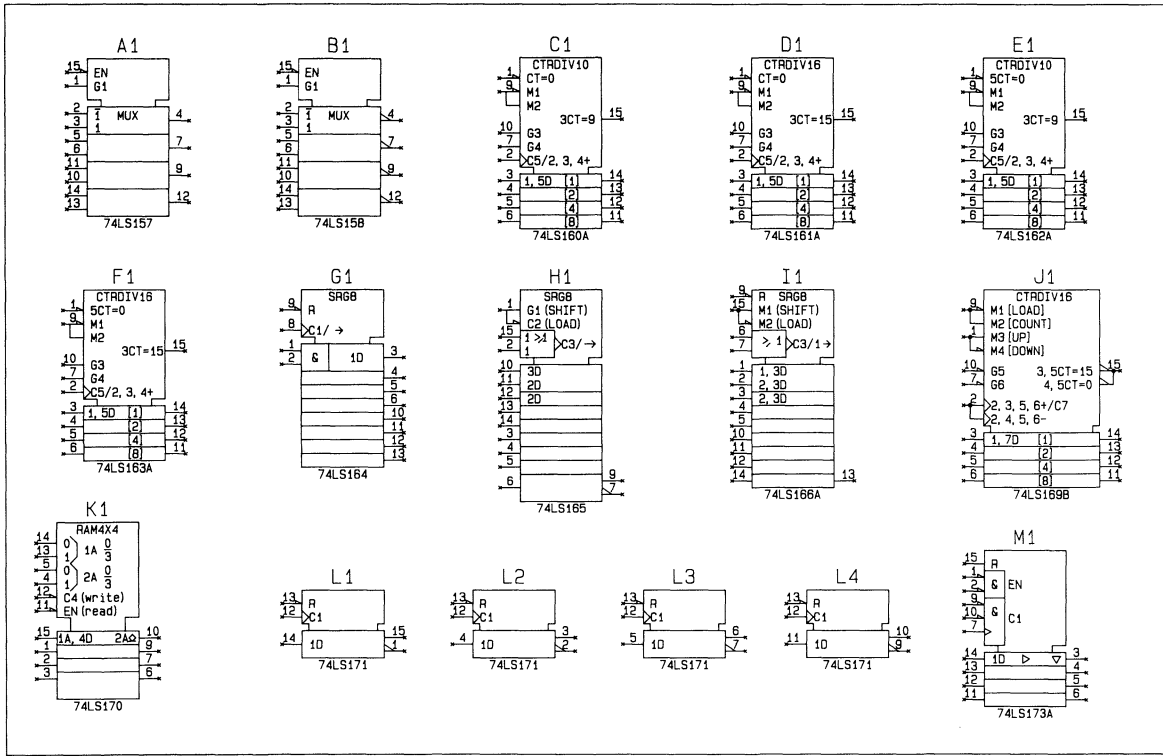


LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS4E

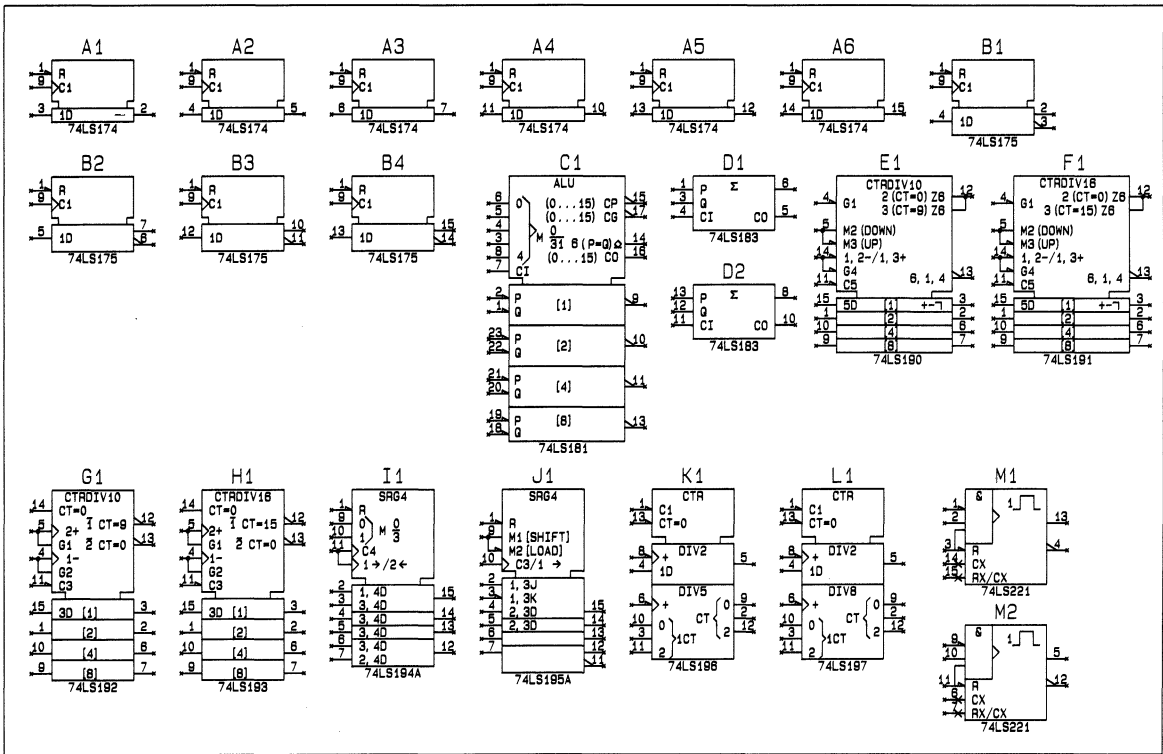


LS9

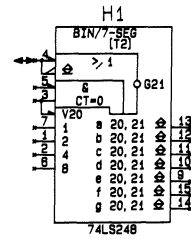
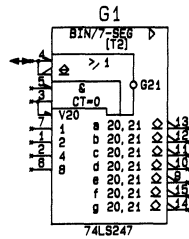
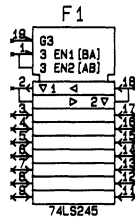
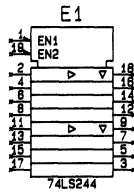
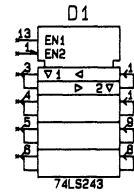
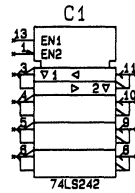
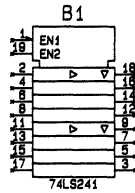
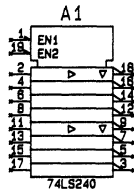


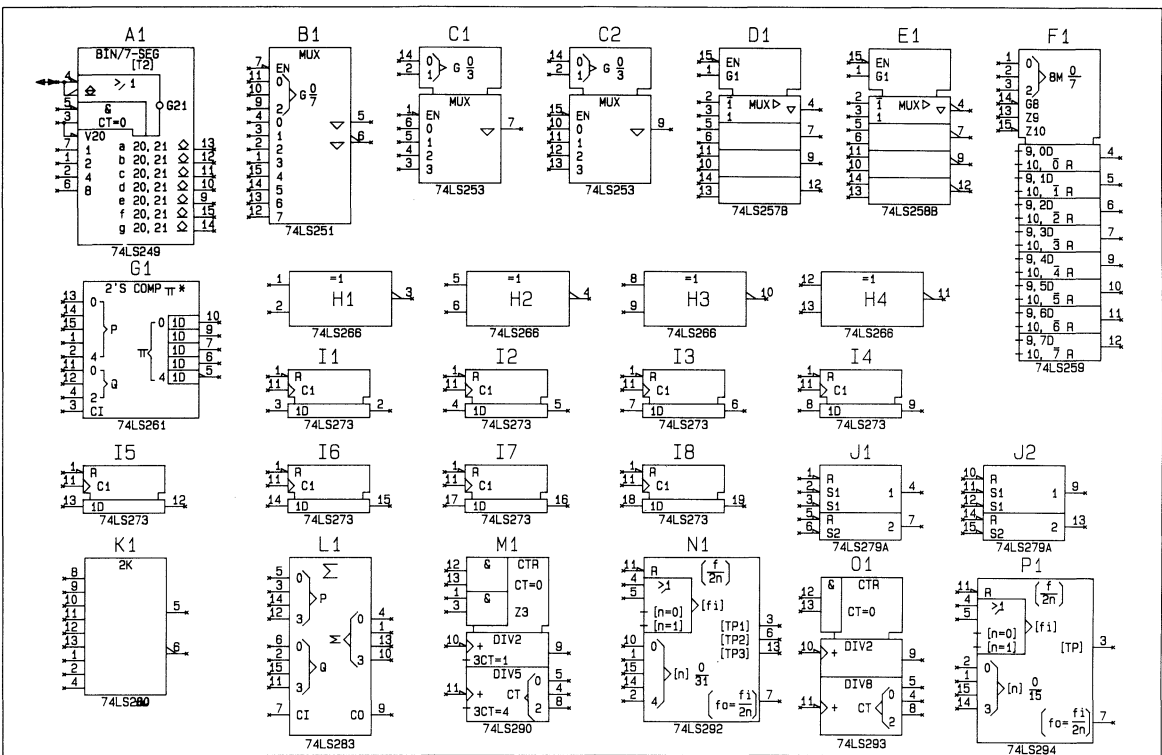
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS6E

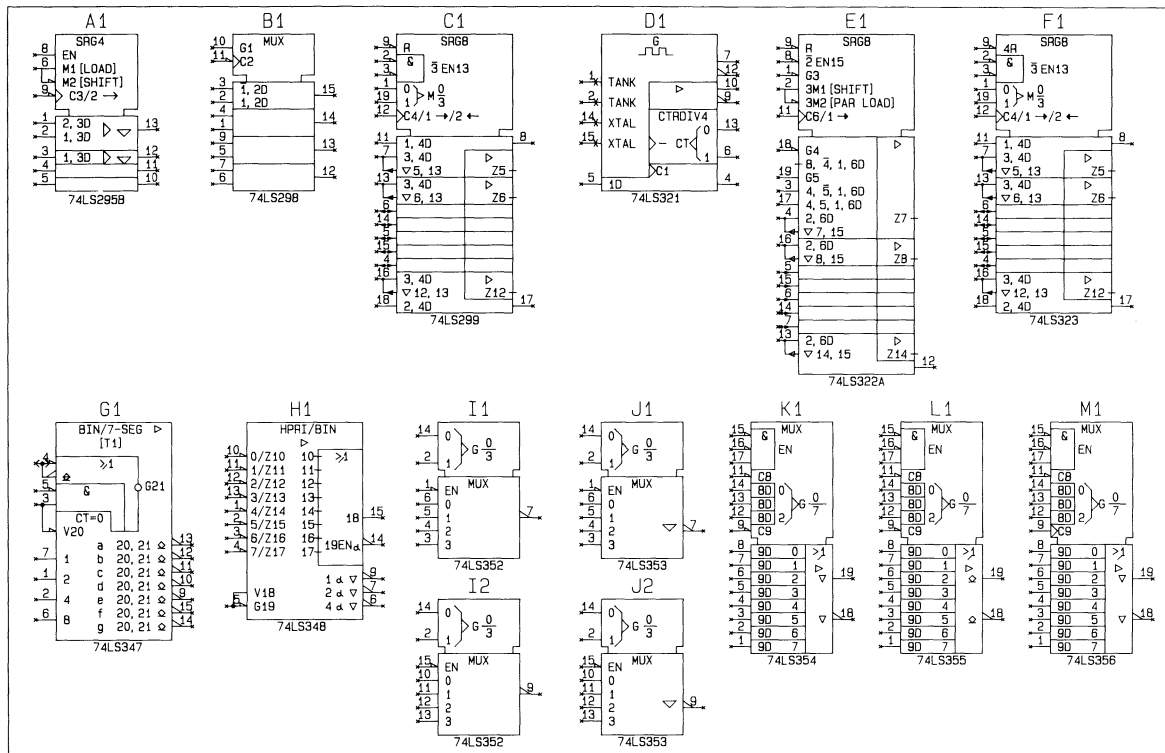


LS7





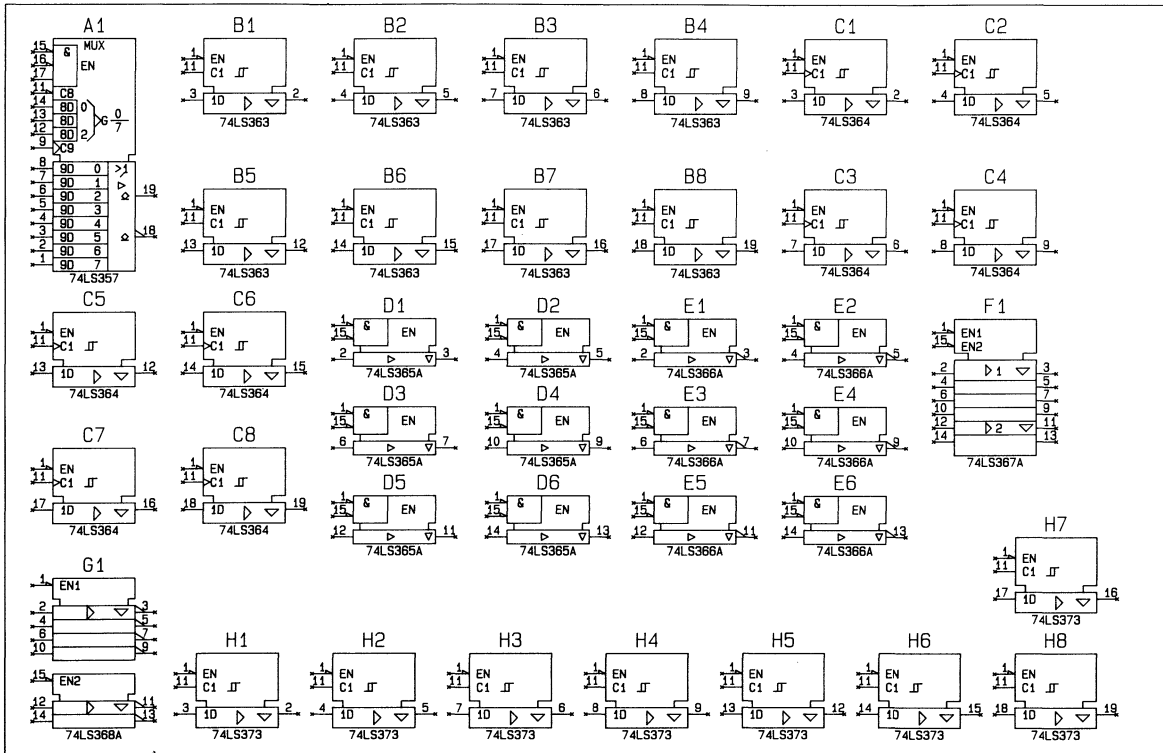
LS9



LS10

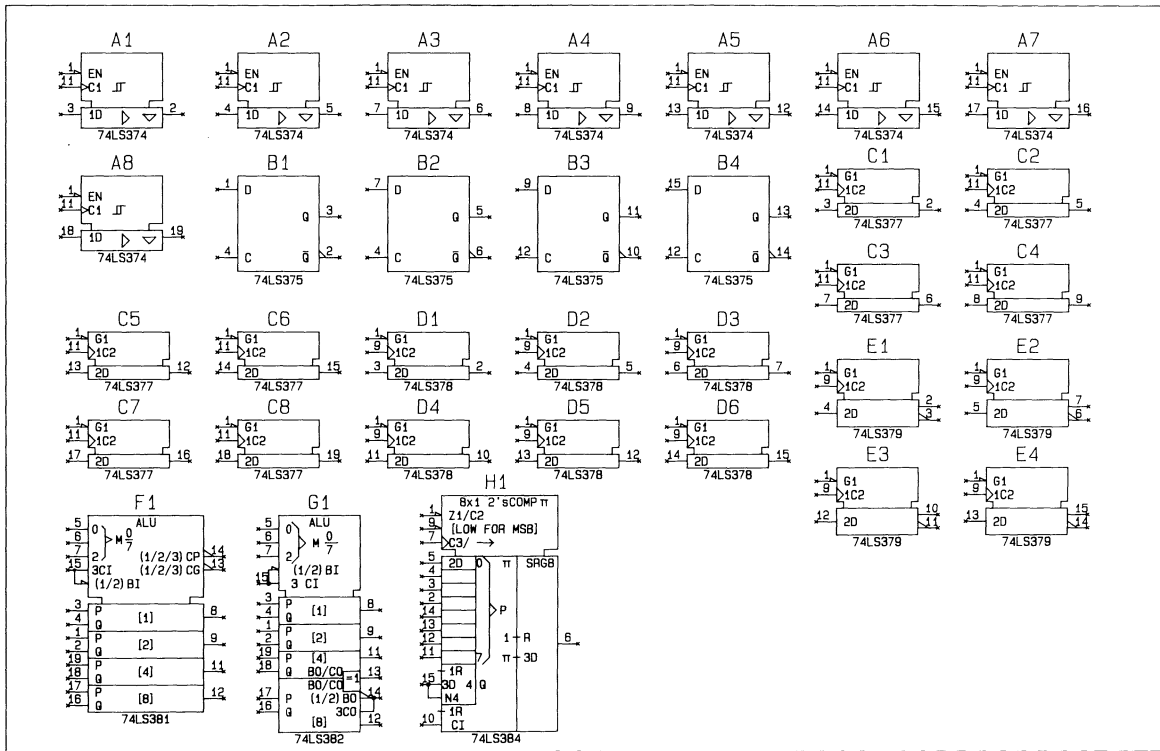
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS10E



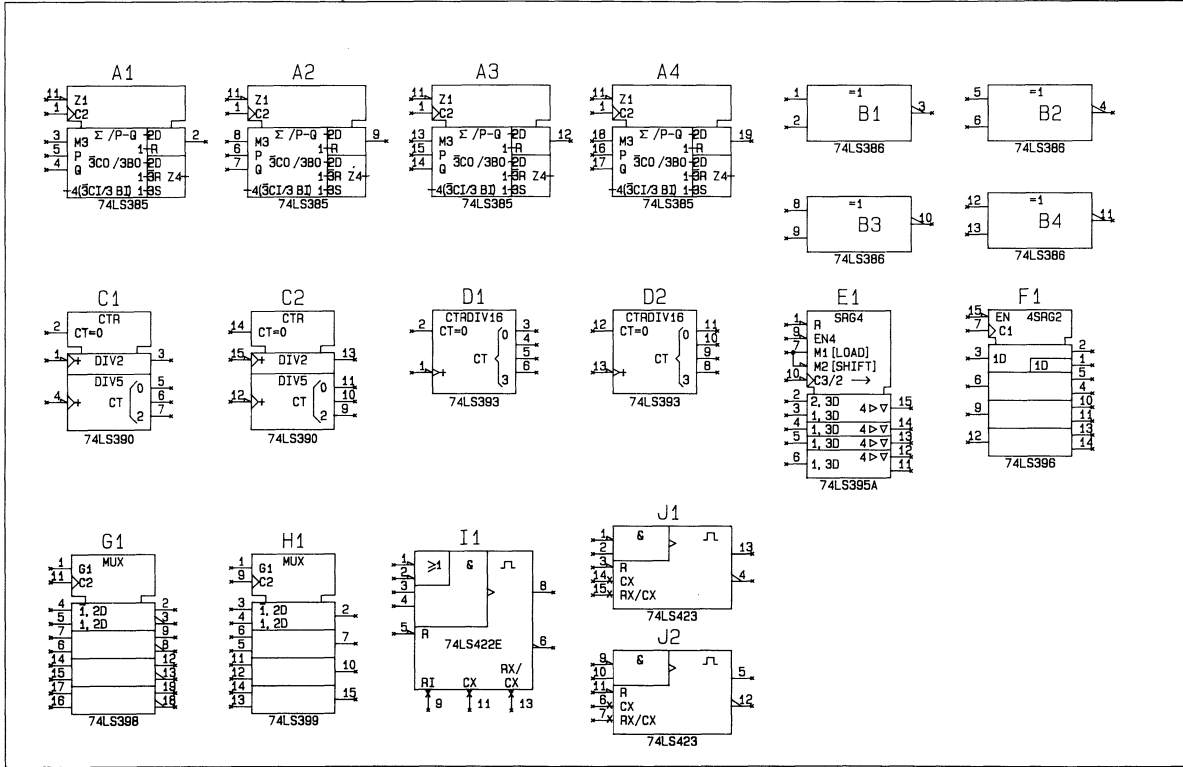
000-0065-03

LS11

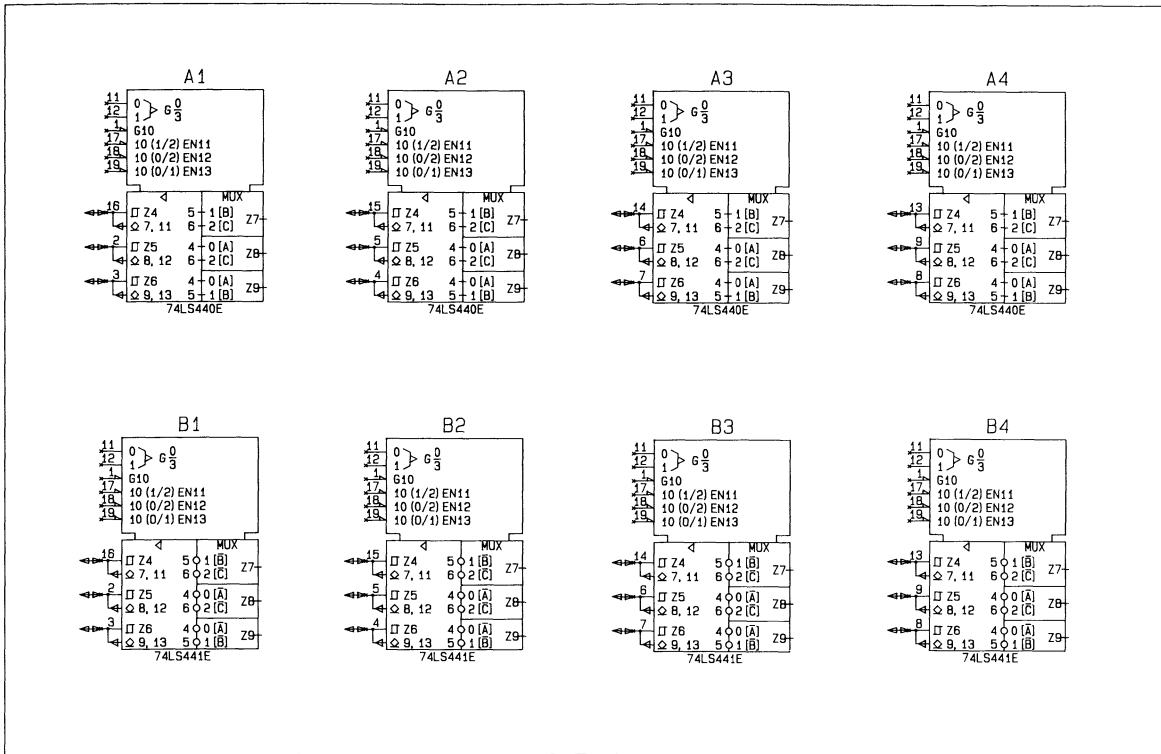


LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

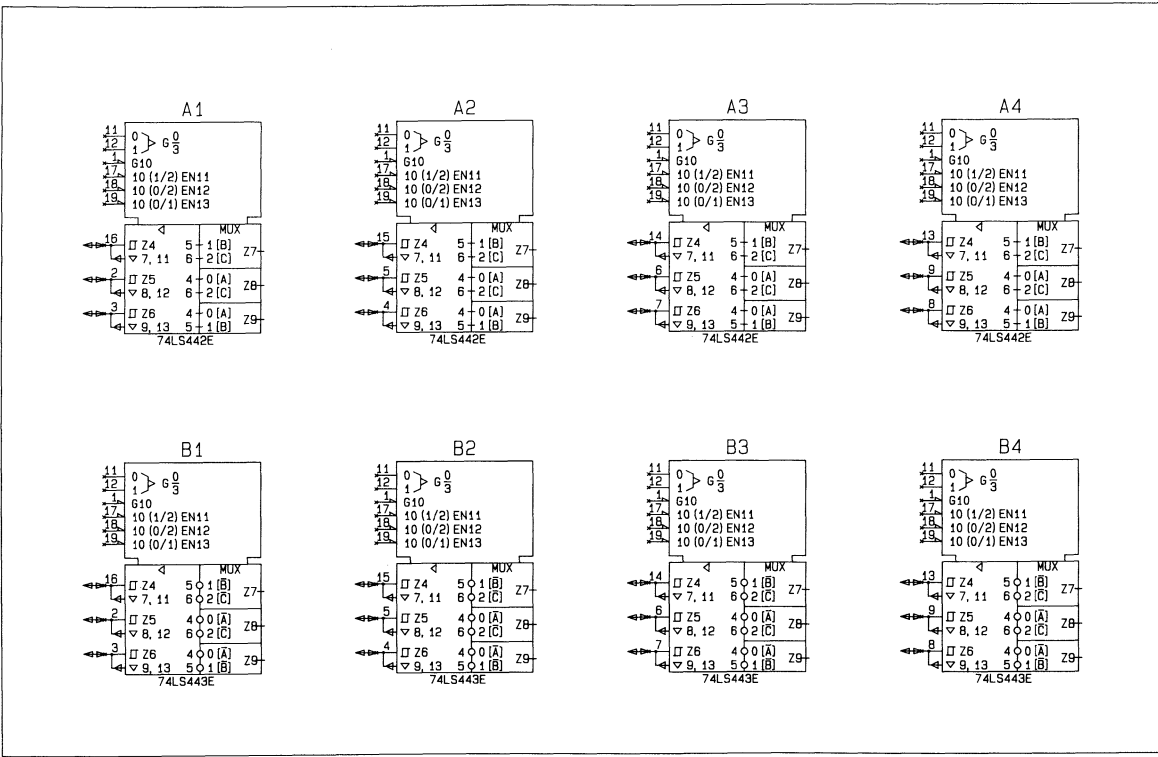
PLOT LS12E



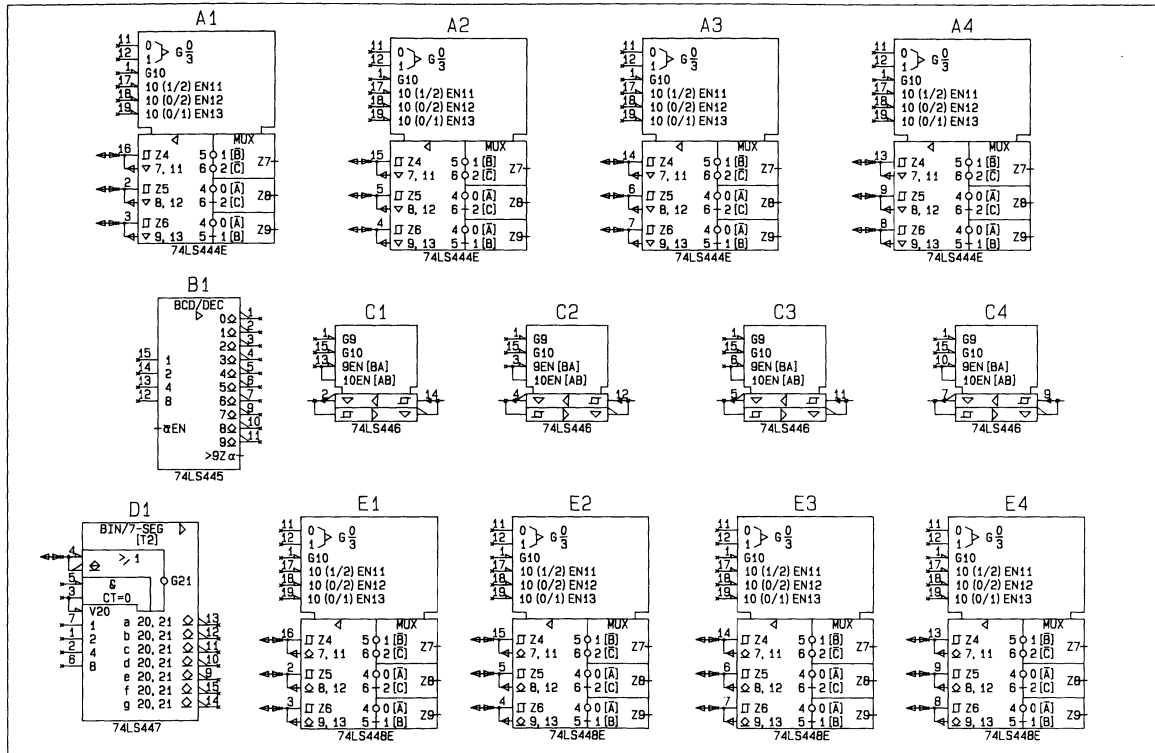
000-0065-03



LS14X



000-0065-03

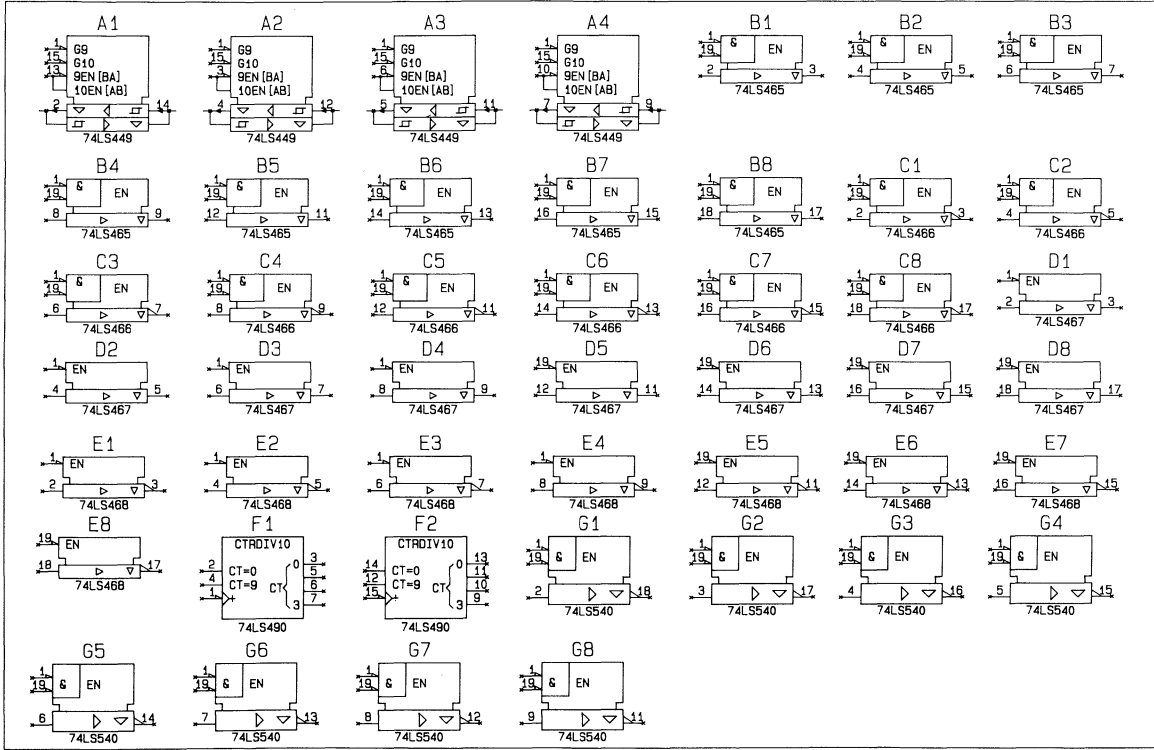


LS15

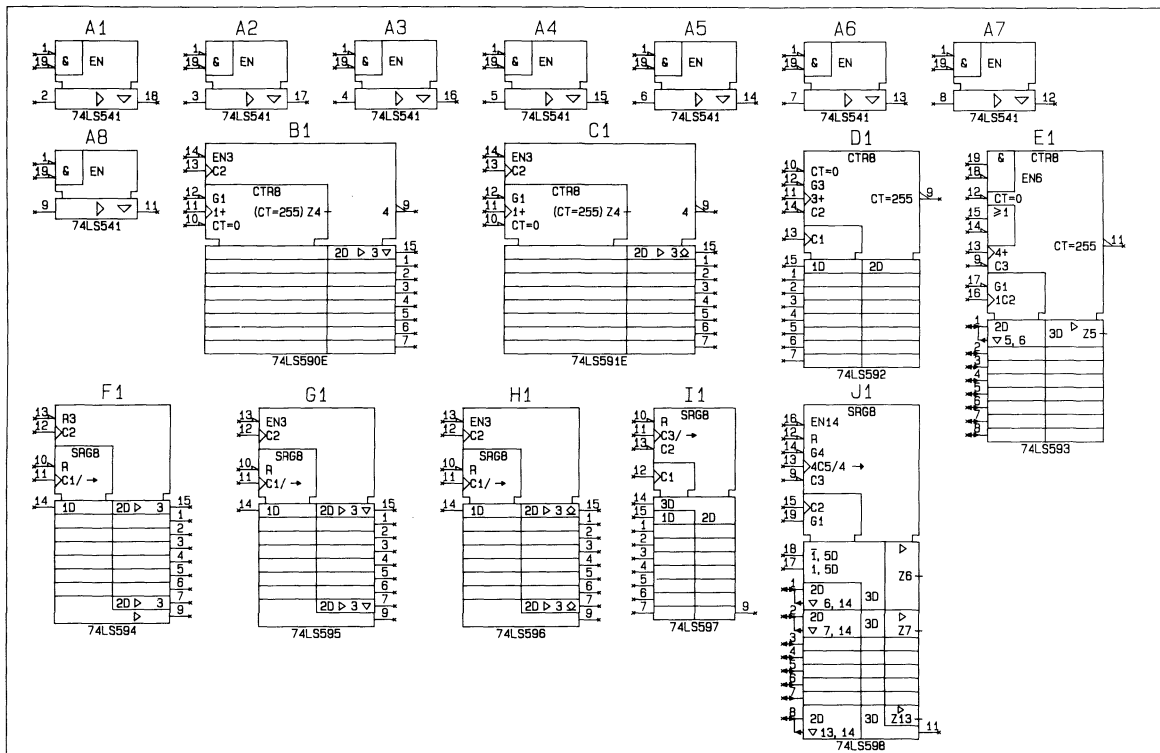
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS16E

Schematic Symbols 303



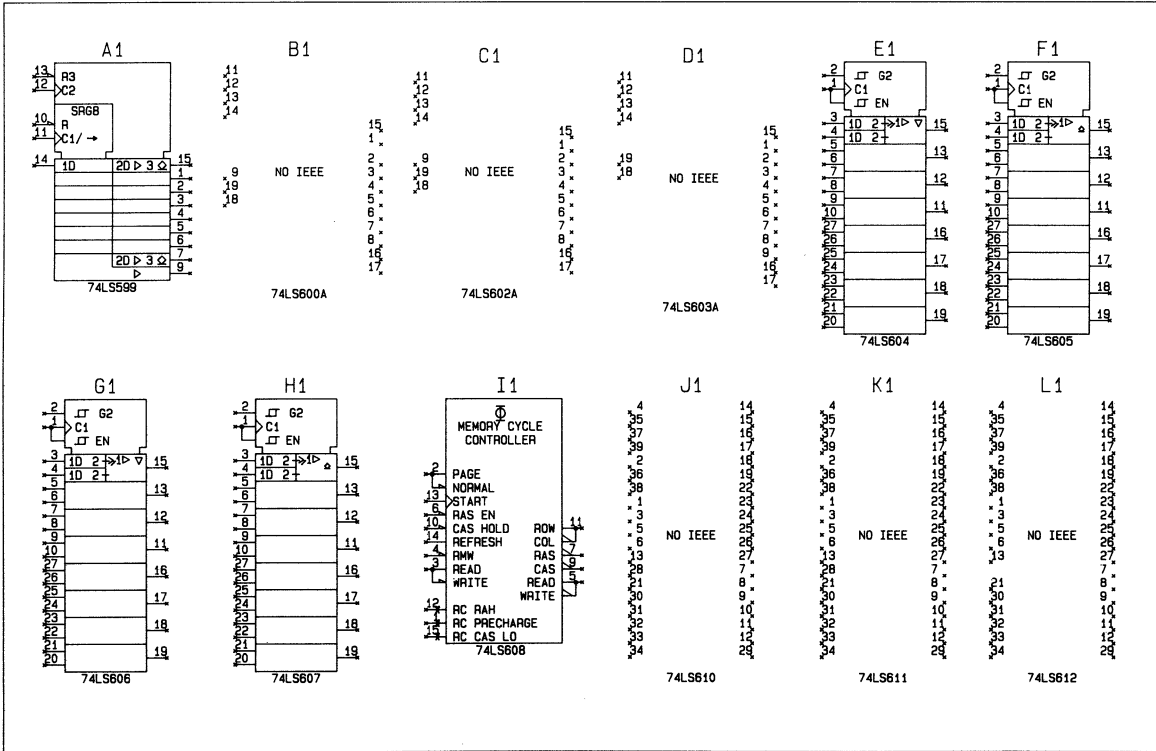
000-0065-03



LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

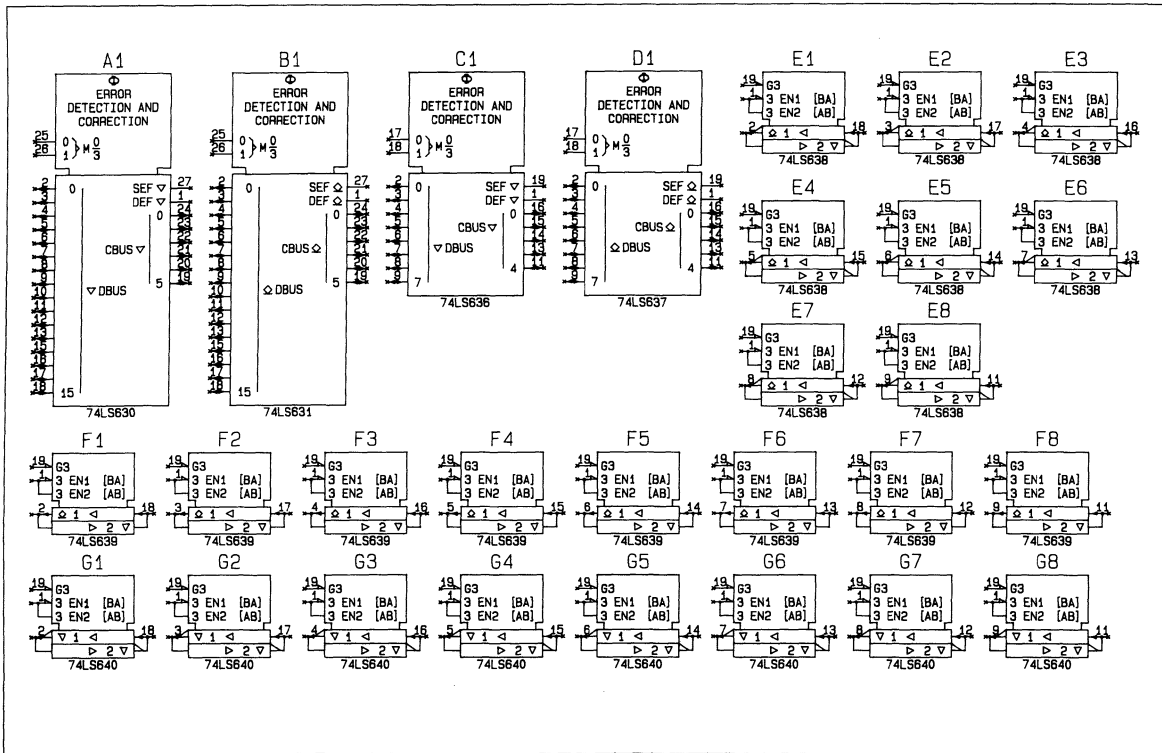
PLOT LS18E

Schematic Symbols 305

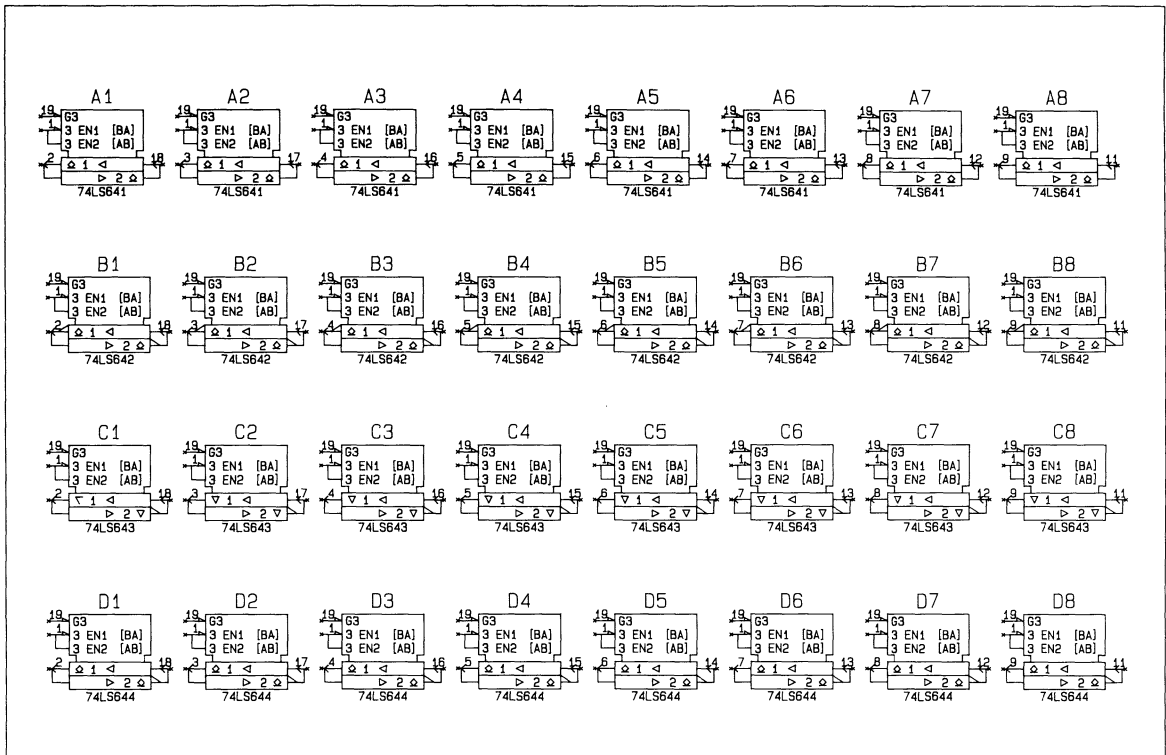


LS18

000-0065-03



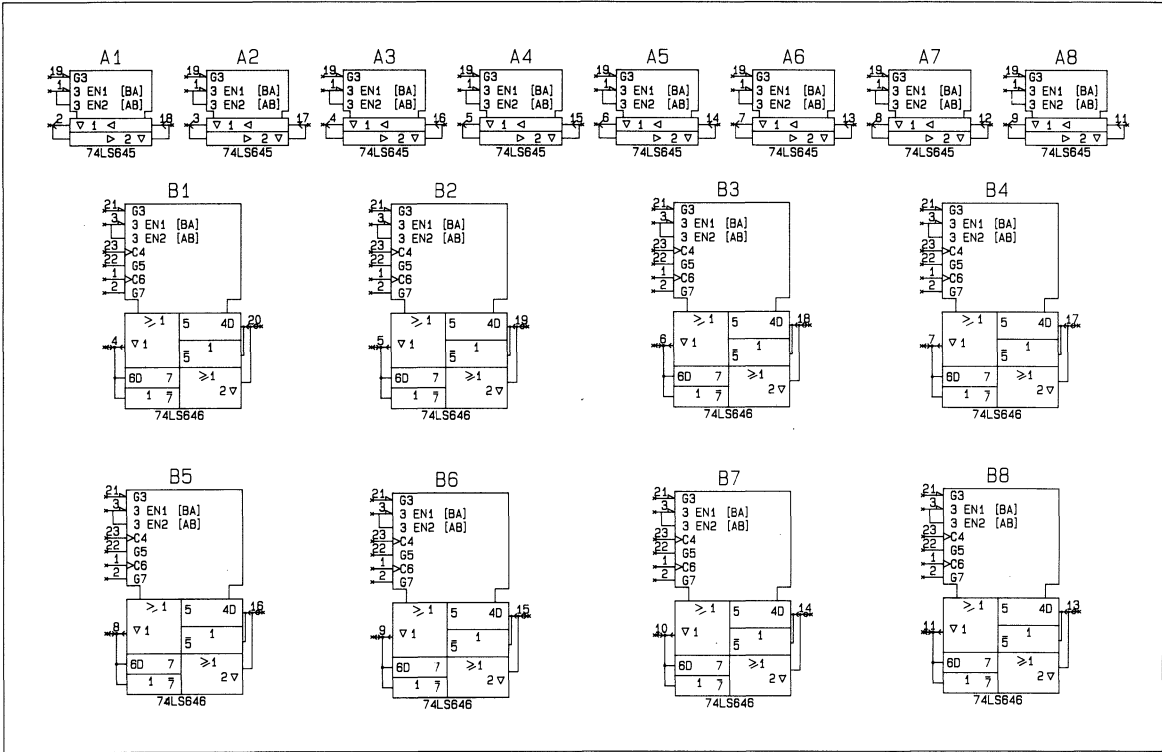
LS20



LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

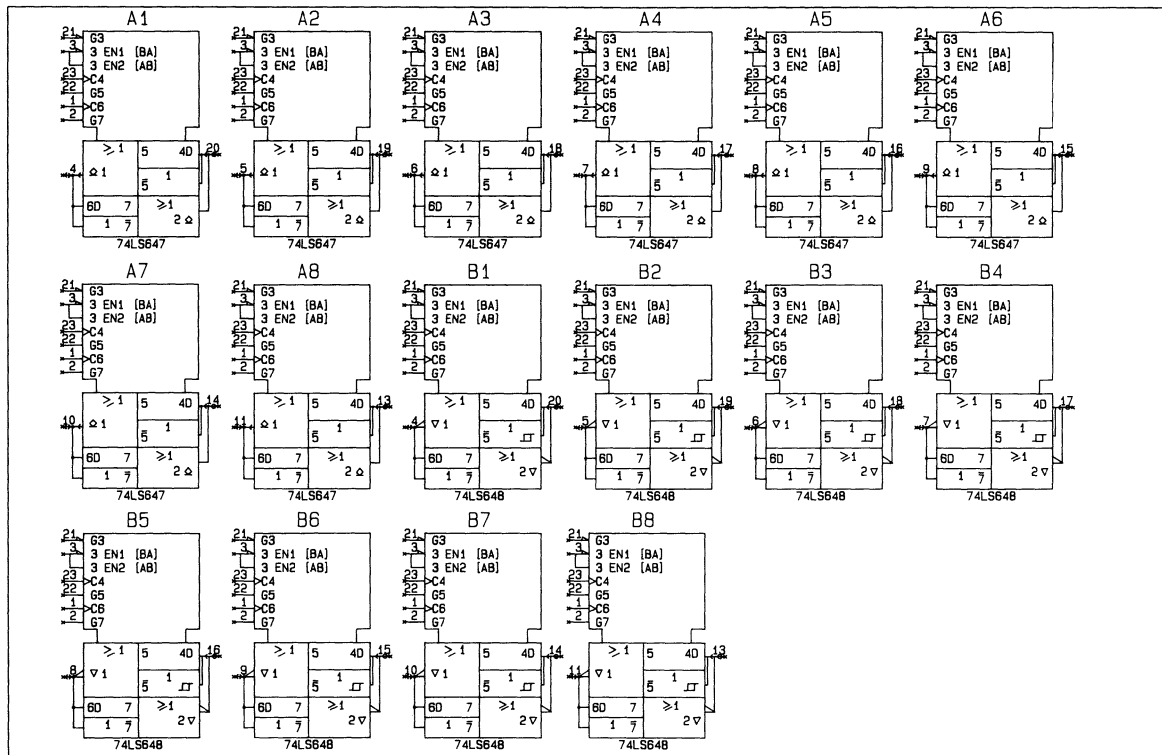
PLOT LS22E

Schematic Symbols 309



LS22

000-0065-03

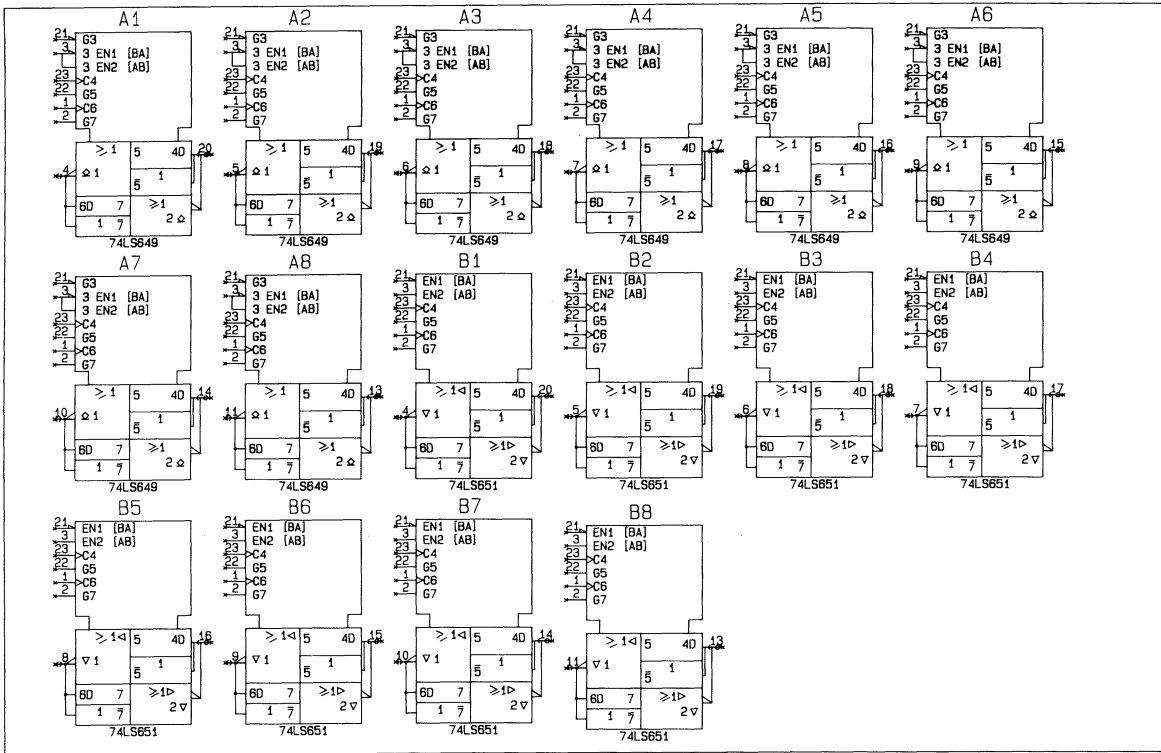


LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS24E

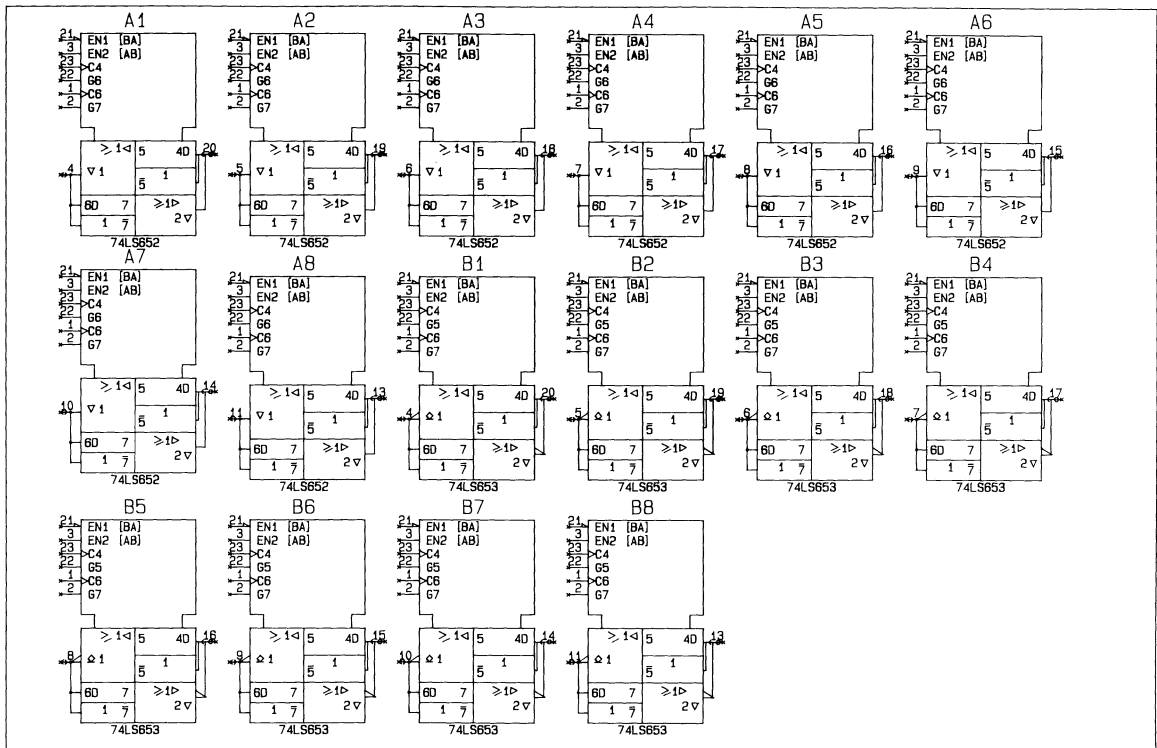
Schematic Symbols 311

LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS LS25E



LS24

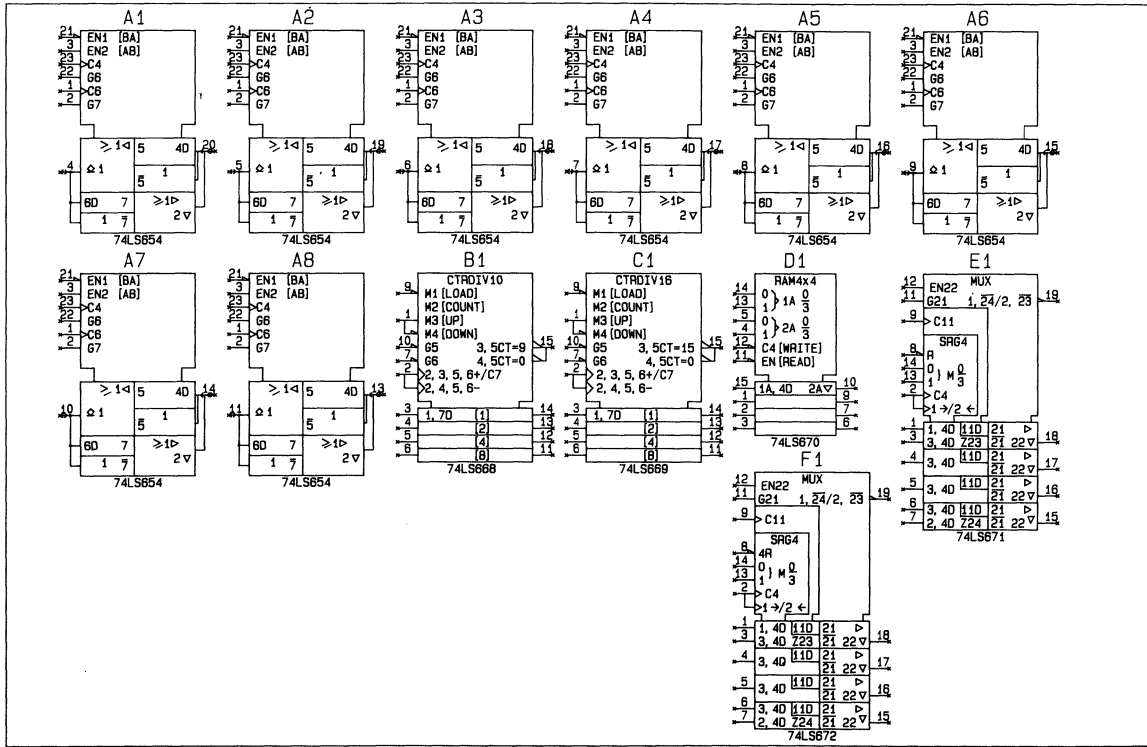
000-0065-03



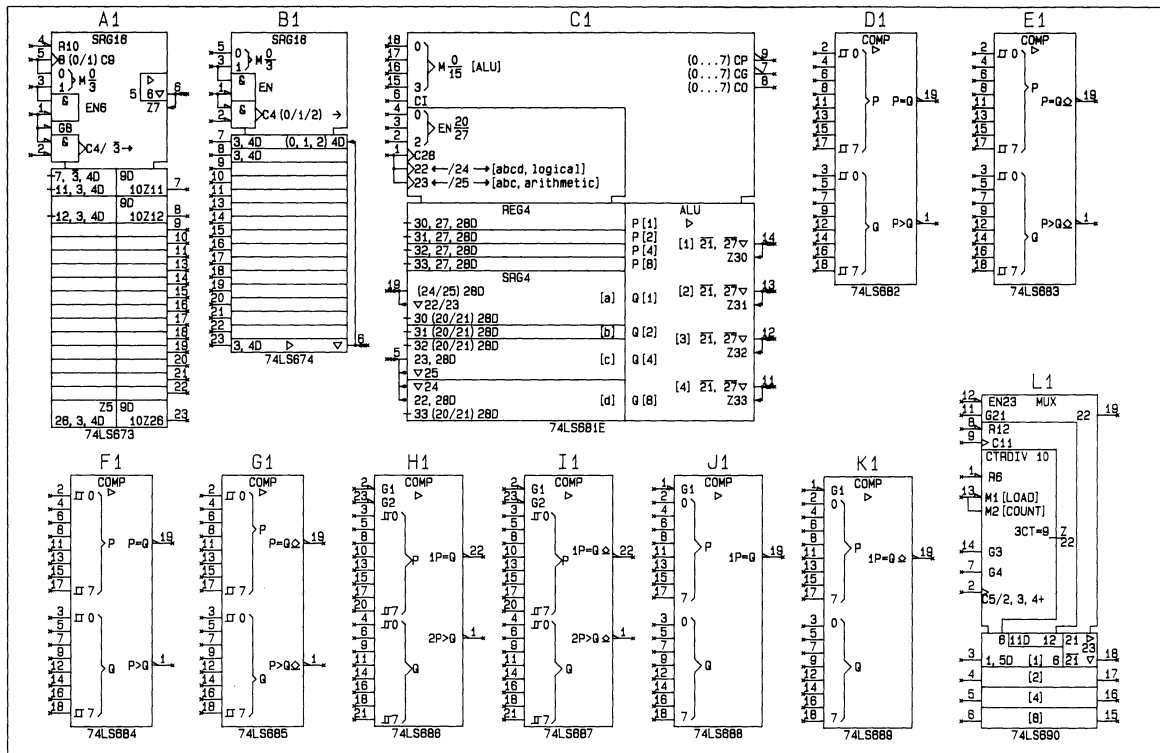
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS26E

Schematic Symbols 313



LS26

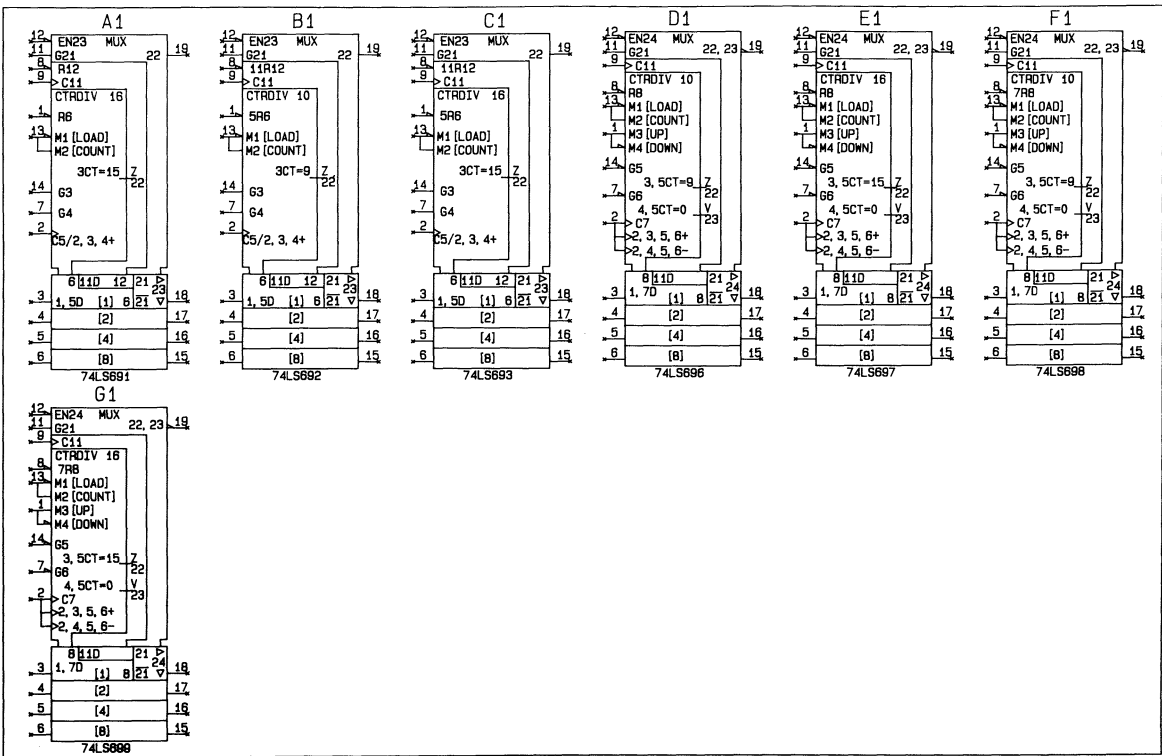


LS27

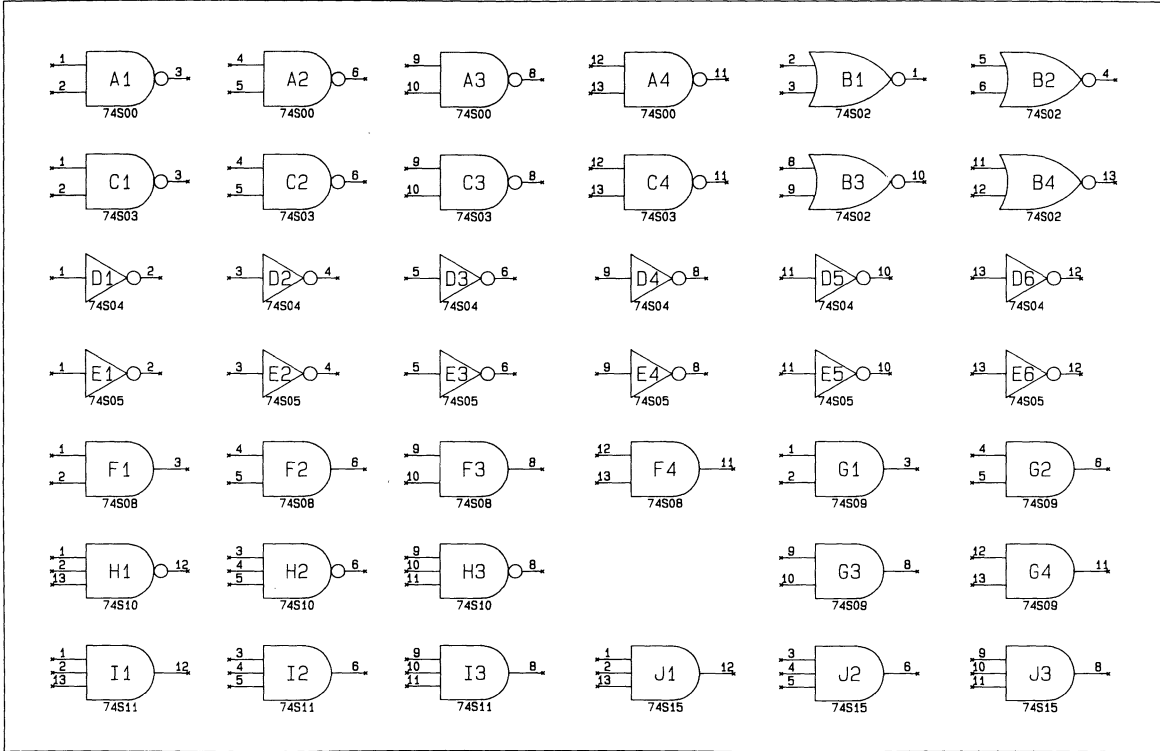
LOW POWER SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT LS28E

Schematic Symbols 315



LS28

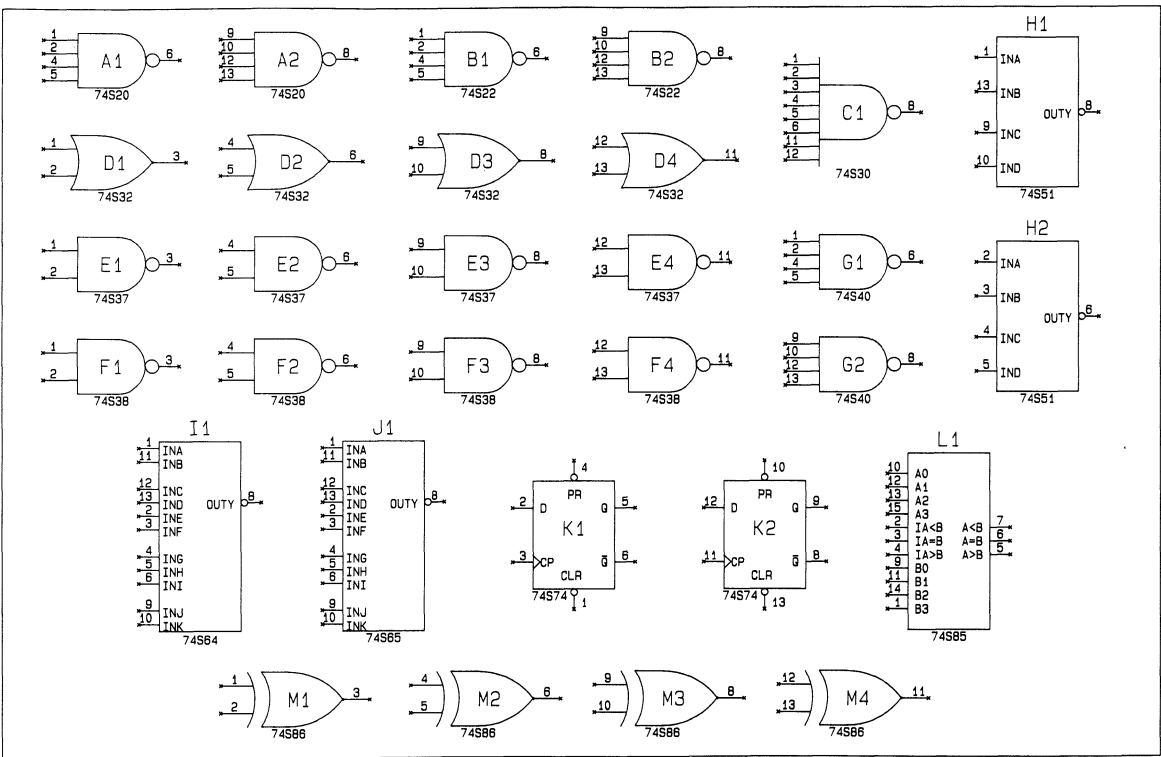


SCHOTTKY COMPONENT SYMBOL PLOTS

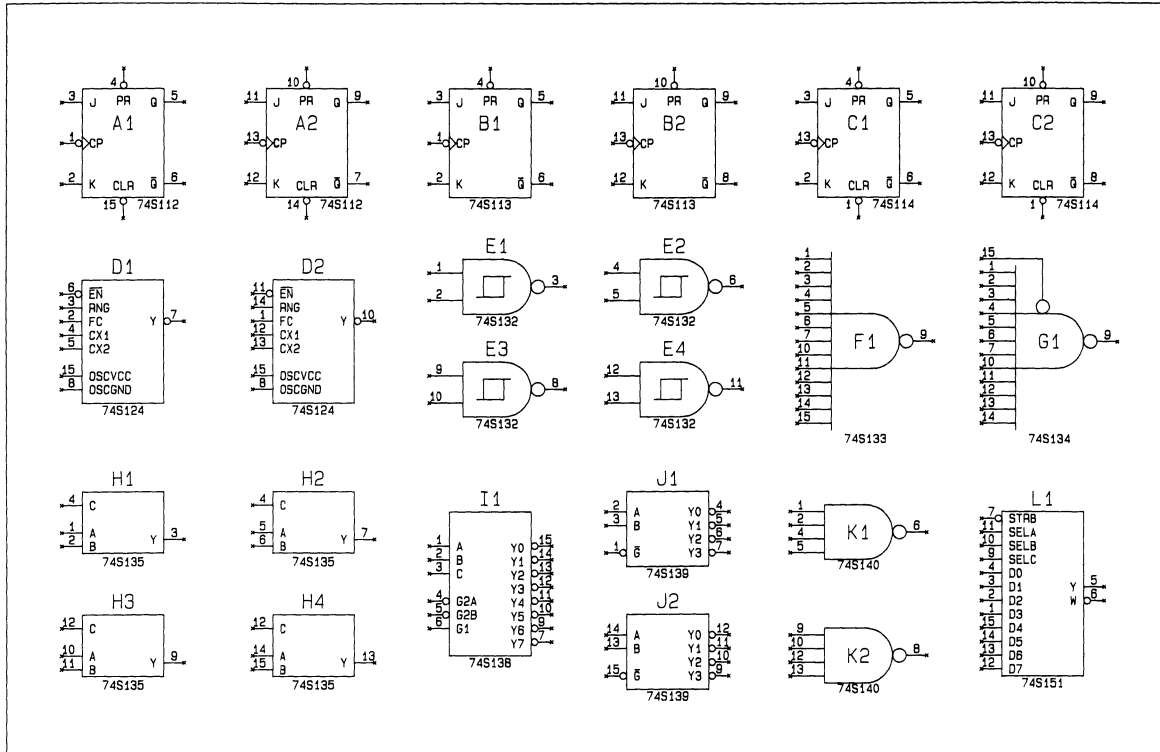
PLOT S1

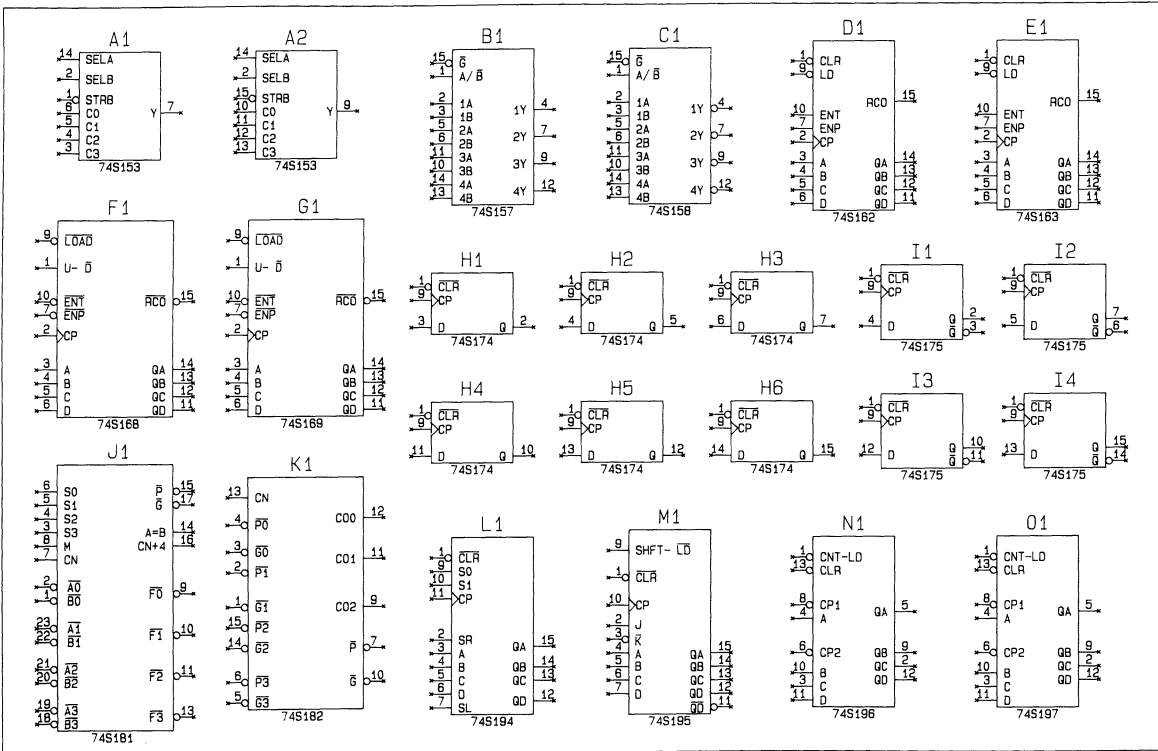
Schematic Symbols 317

SCHOTTKY COMPONENT SYMBOL PLOTS

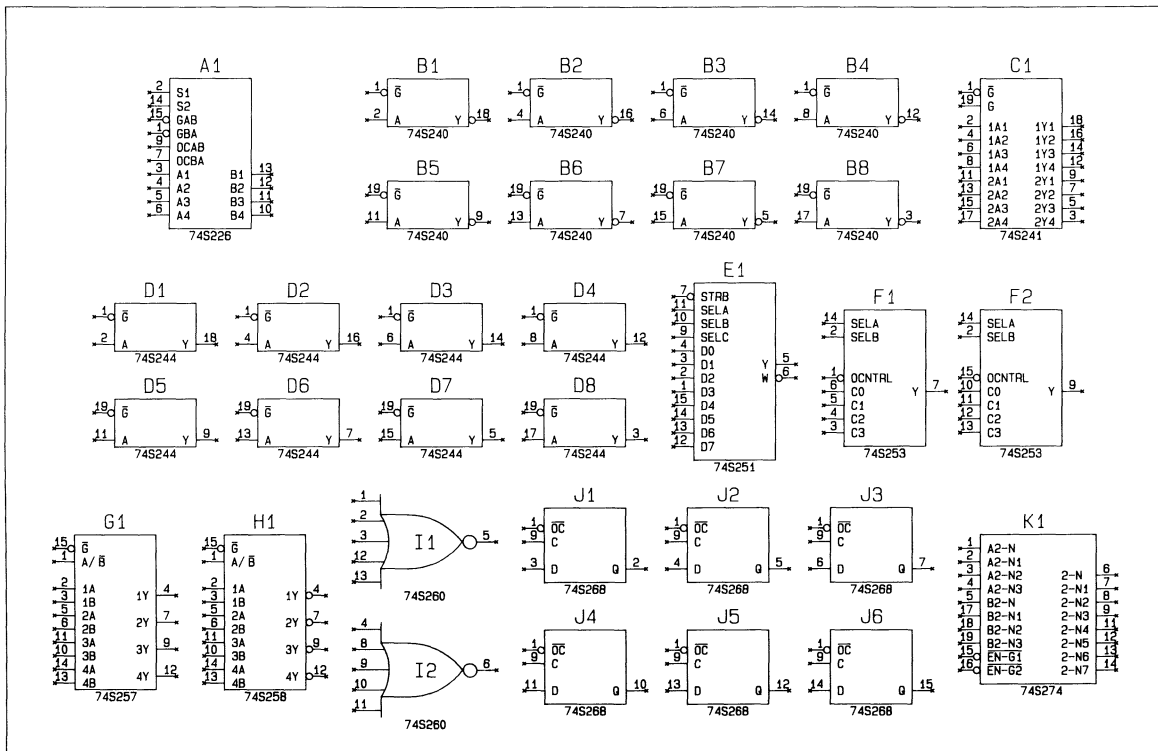


S2



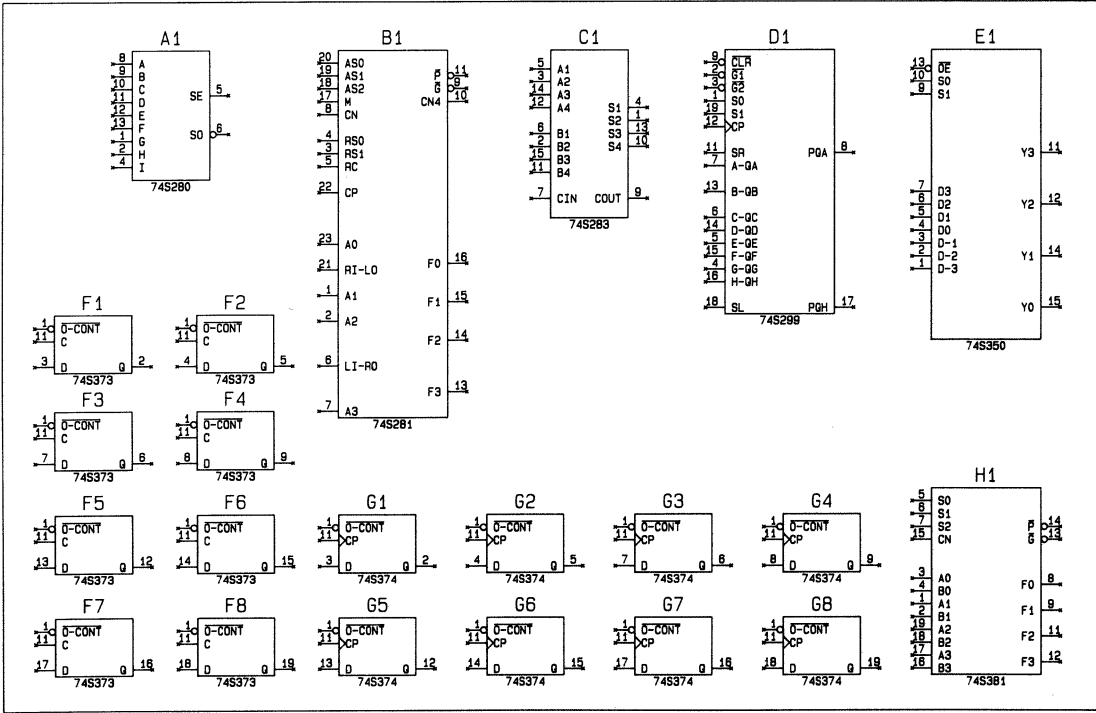


000-0065-03

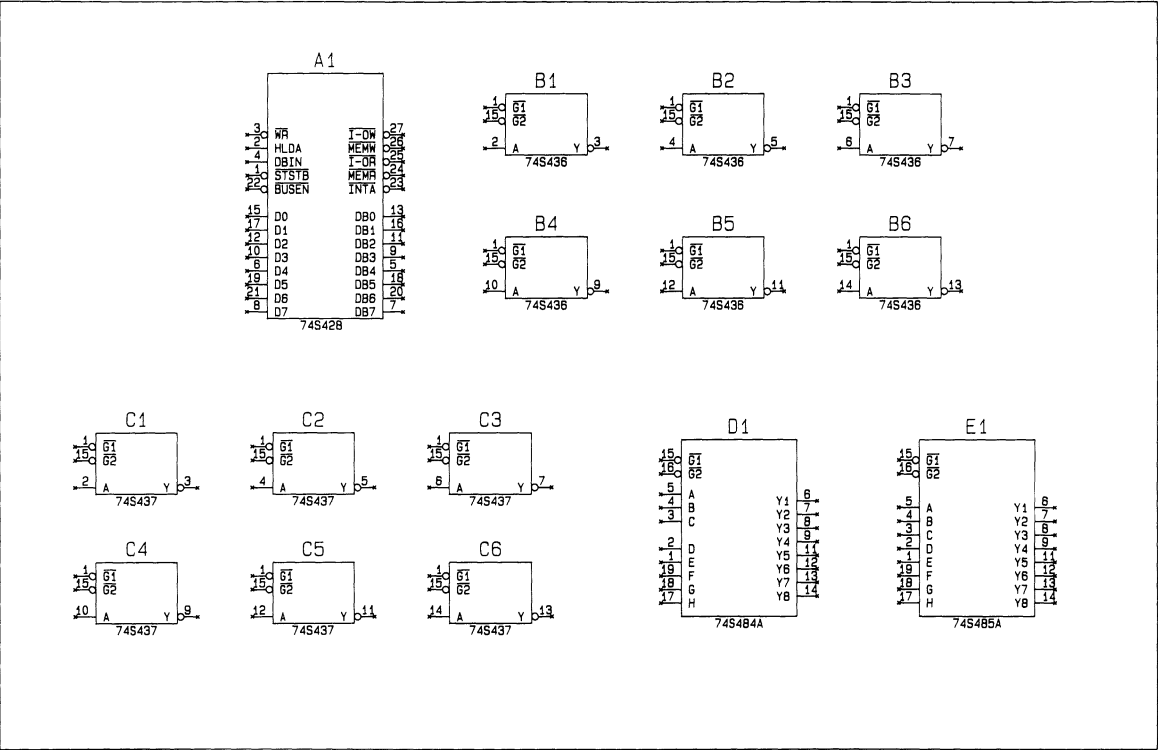


SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT S6

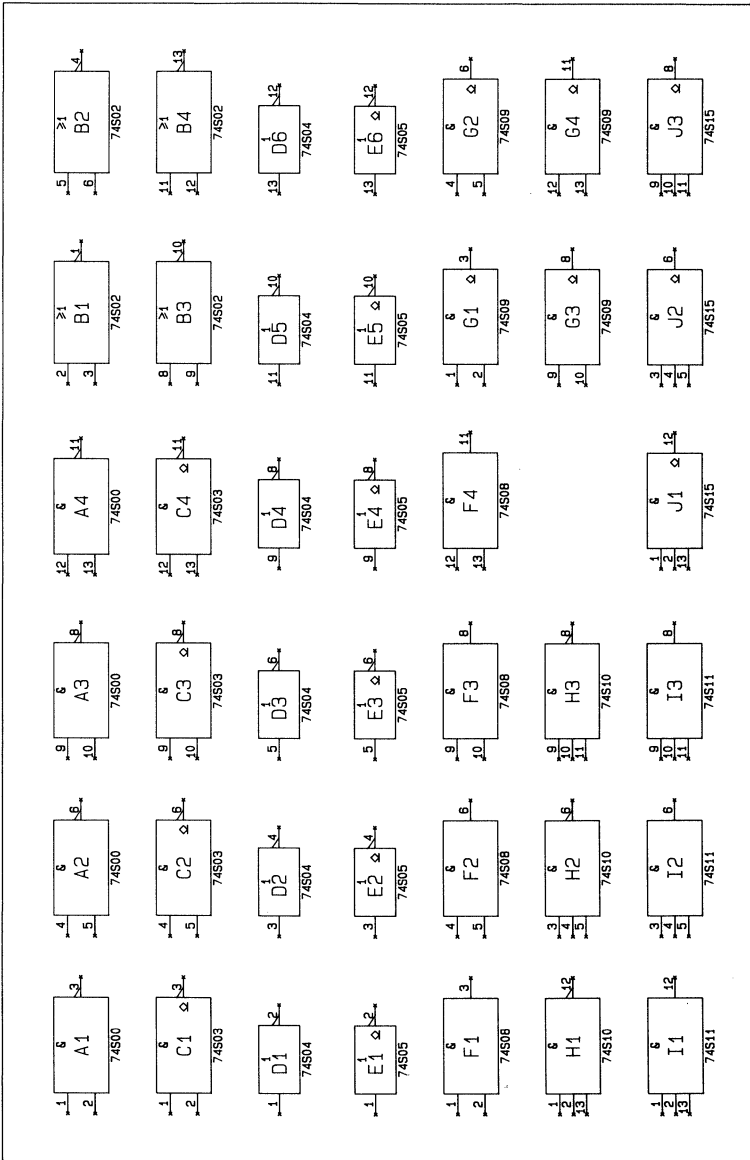


S6

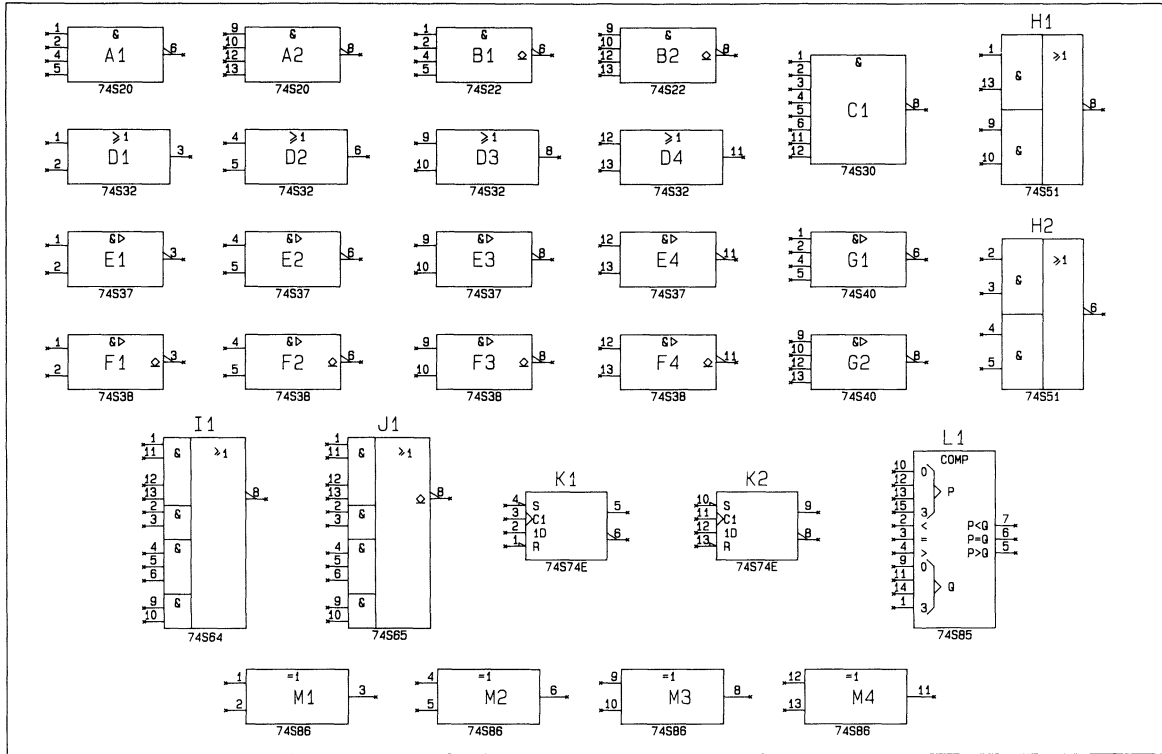


SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT S1E



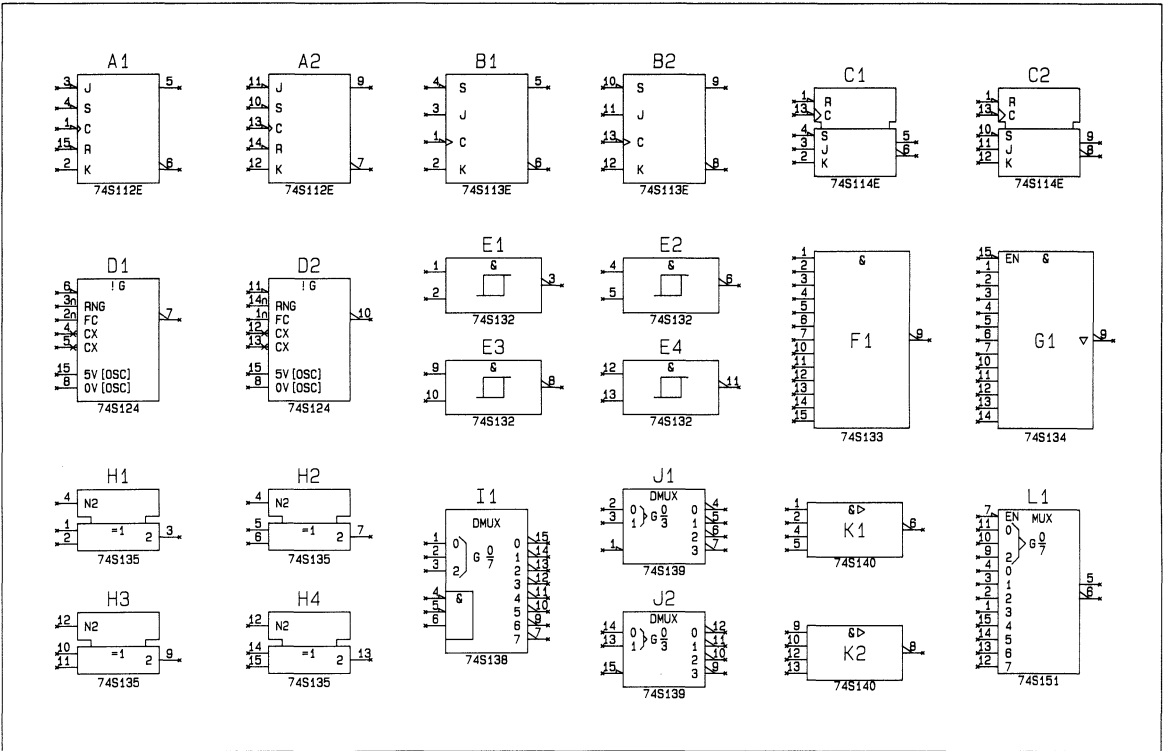
S1A



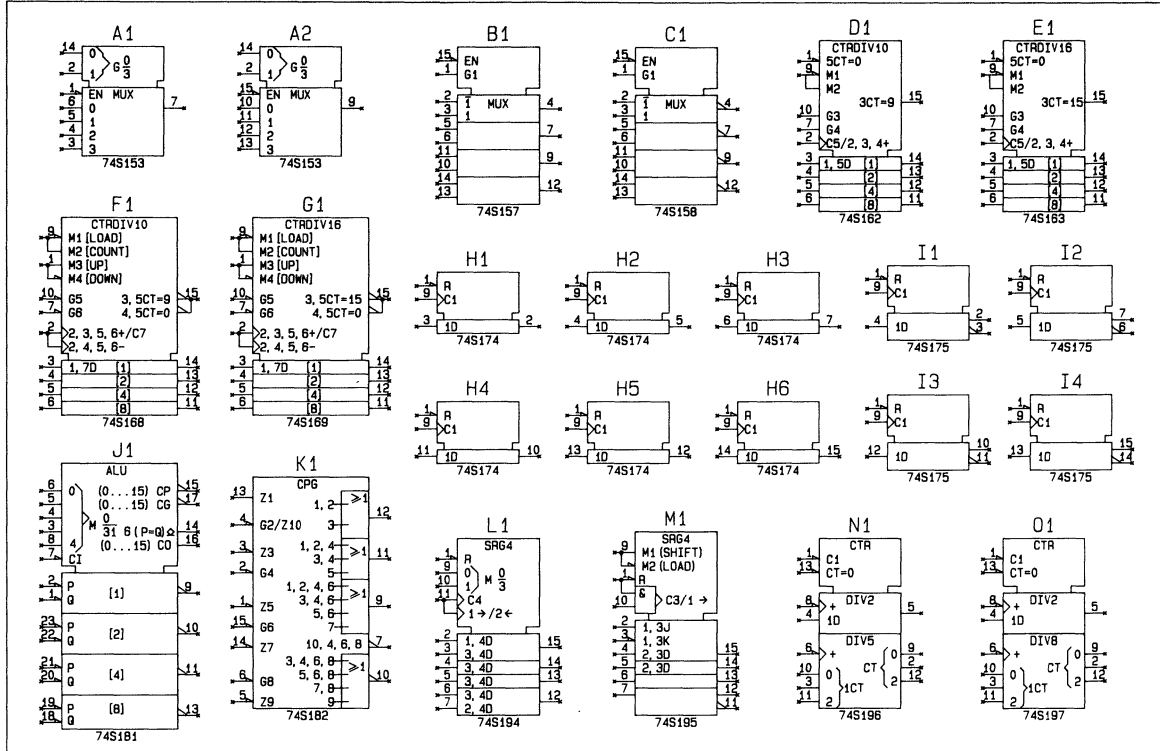
SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT SIZE

Schematic Symbols 325



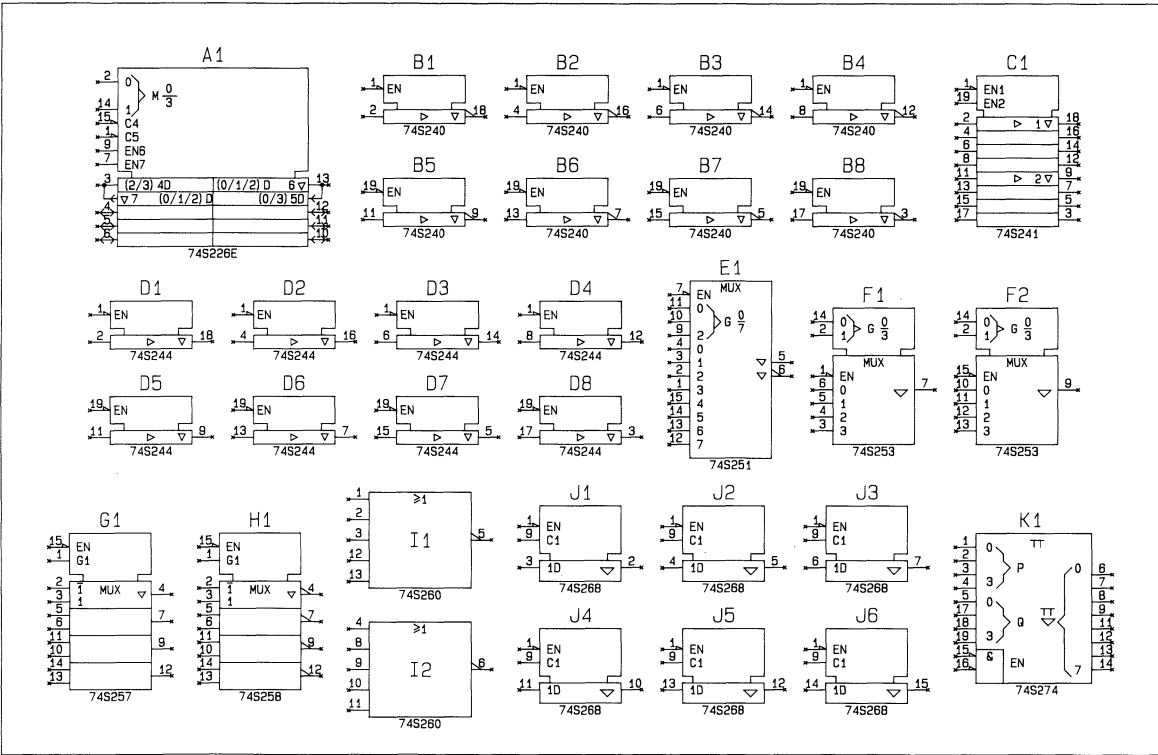
S3A



SCHOTTKY COMPONENT SYMBOL PLOTS

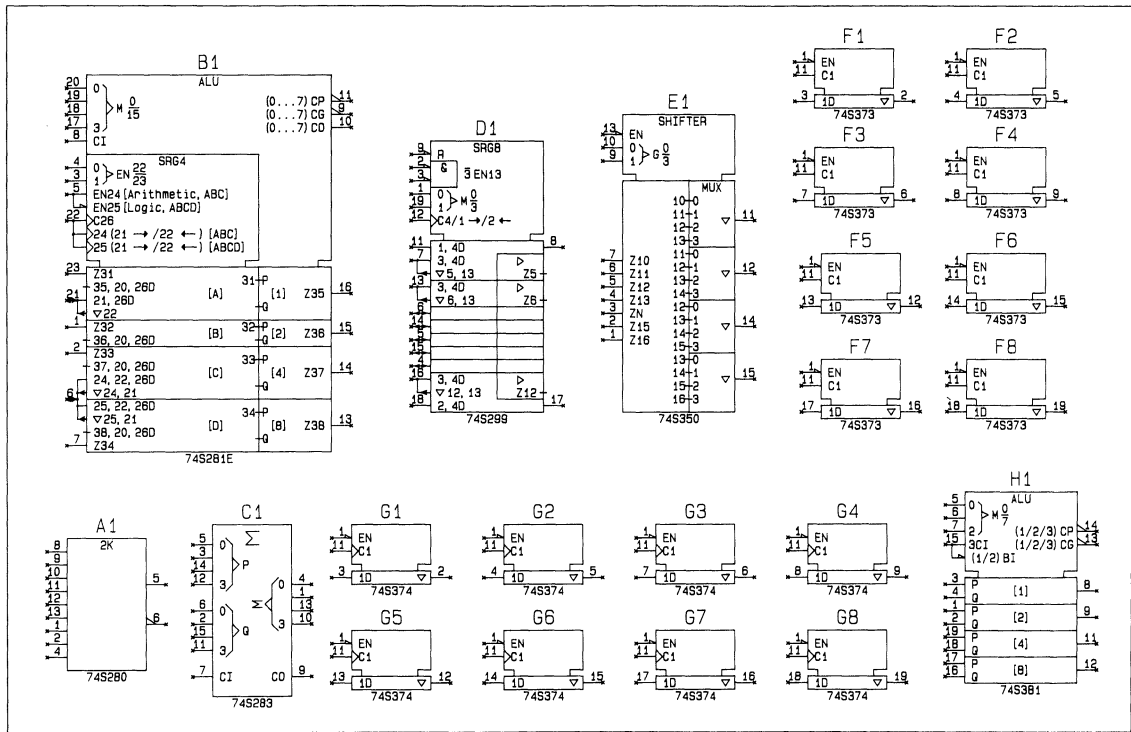
PLOT SAE

Schematic Symbols 327



S5A

000-0065-03

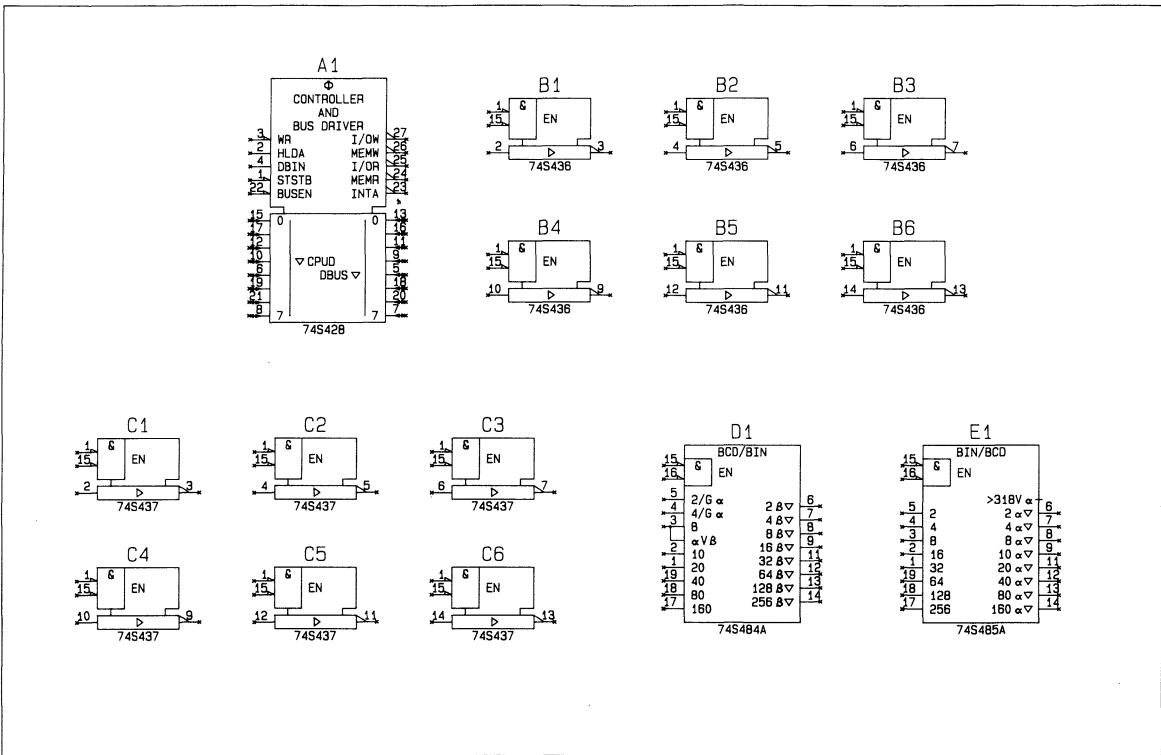


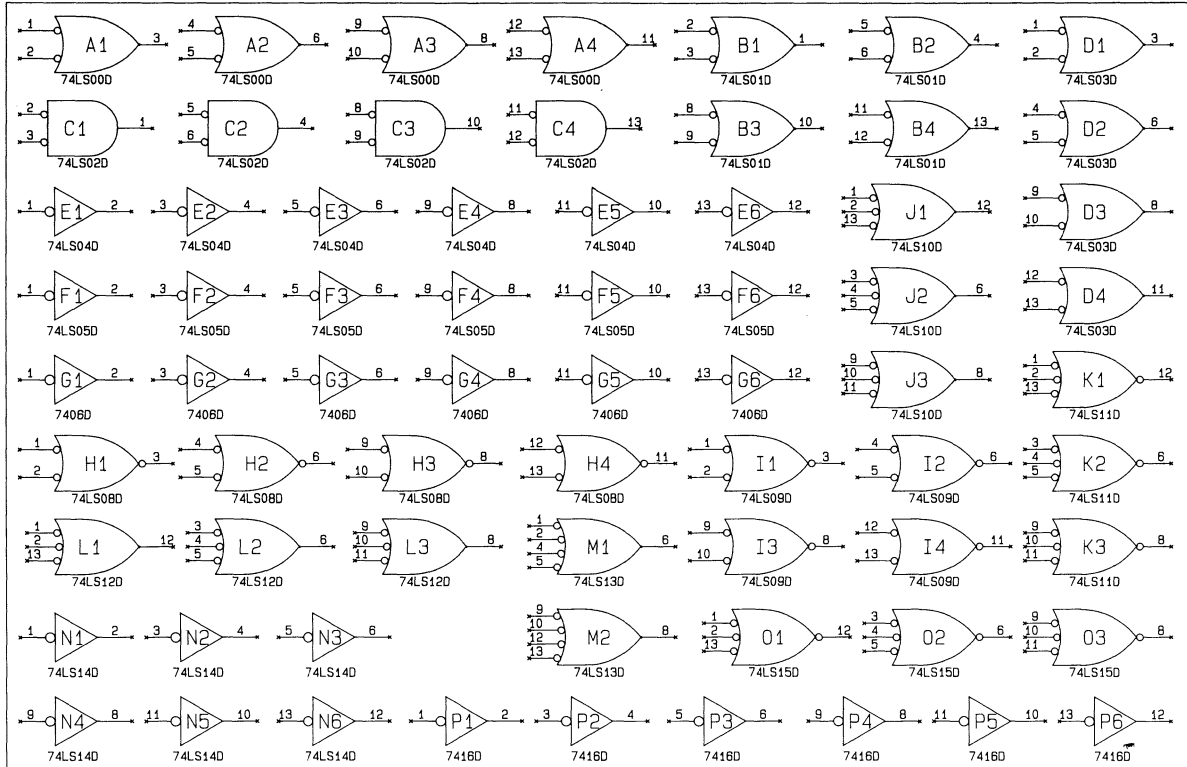
58A

SCHOTTKY COMPONENT SYMBOL PLOTS

PLOT S6E

Schematic Symbols 329



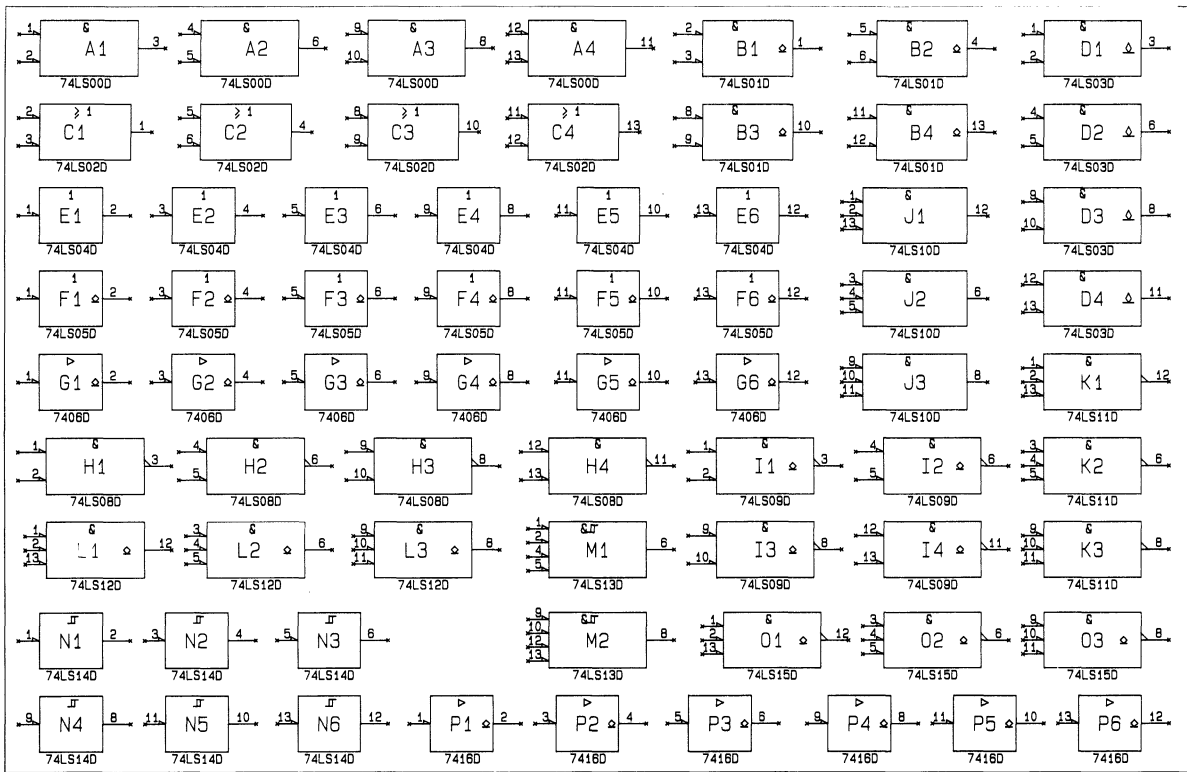


DEMORGAN EQUIVALENT COMPONENT SYMBOL PLOTS

PLOT D1

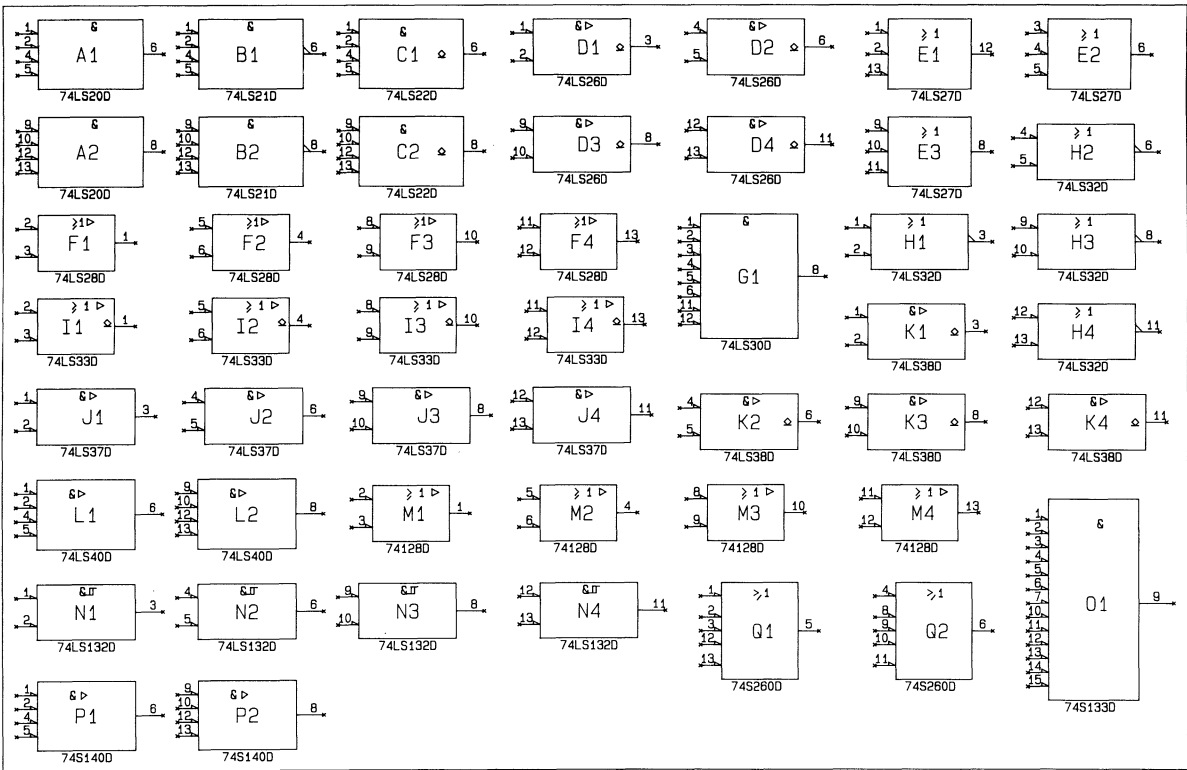
Schematic Symbols 331

AD



DEMORGAN EQUIVALENT COMPONENT SYMBOL PLOTS

PLOT D1E



B01