

# Replacement Part Cross Reference

When selecting replacement parts for your HP products, you may notice that many manuals list only an HP part number for the part, even though it appears that this part is manufactured by one of the large semiconductor manufacturers. Service personnel often ask why only HP part numbers are listed.

It is recommended that HP replacement parts be used to ensure that original performance of the product will be retained. While some parts used in HP instruments are identical to those that can be purchased at a local electronics distributor, many times parts will be selected for certain characteristics,

such as gain, bandwidth, capacitance, etc. There may also be slight mechanical differences, such as the shaping or length of leads. In some cases special quality checks are used to ensure that high reliability parts are used at the factory and at HP field offices.

Therefore, we suggest obtaining replacement parts from HP to maintain the quality that you have paid for in your instrument. There may be situations however, where HP replacement parts are not in stock and substituting parts will allow you to return the product to service immediately. In these cases it may be worthwhile to see if a substitute part

will work in the circuit. Perhaps an HP part could be ordered and installed at some later date.

To help you in these situations, here is a cross-reference of HP part numbers to JEDEC numbers for transistors and diodes.

## NOTE

This is not a comprehensive list. Many semiconductors are made exclusively for Hewlett-Packard and there are no substitutes. If the part number you are looking for is not listed here, it does not have a JEDEC number and must be replaced with the same HP part number. □

## Manufacturers Code Number Cross Reference

### No. Manufacturer

00039	NEC ELECTRONICS INC	MTN VIEW	CA US 9404380545	8
00046	UNITRODE CORP	LEXINGTON	MA US 021739N171	3
00746	ROHM CORP	IRVINE	CA US 927132M627	8
01250	GTE SYLVANIA ELEK COMPONENTS GROUP	WALTHAM	MA 021549451	0
01590	FLESSEY SEMICONDUCTORS	SANTA ANA	CA 9270552648	5
01691	TRW INC SEMICONDUCTOR DIV	LAWDALE	CA 902601281	9
01698	TEXAS INSTRUMENTS INC	DALLAS	TX US 7526501295	0
01921	RCA CORP	NEW YORK	NY US 101123L585	6
01973	GE CO SEMICONDUCTOR PROD DEPT	AUBURN	NY US 1320103508	7
01979	LANSDALE TRANSISTOR & ELEK INC	PHOENIX	AZ 850197E372	4
01991	TRANSITRON ELECTRONIC CORP	WAKEFIELD	MA 0188024046	9
02037	MOTOROLA INC	ROSELLE	IL US 6019504713	0
02062	HP DIV 05 MSD	SAN JOSE	CA US 9430428480	8
02086	WESTINGHOUSE ELEC CORP SEMICON	DEPT YOUNGWOOD	PA 1569705277	7
02158	EDAL INDUSTRIES INC	EAST HAVEN	CT 0651206288	4
02180	PRECISION MONOLITHICS INC	SANTA CLARA	CA US 9505406665	8
02237	FAIRCHILD SEMICONDUCTOR CORP	CUPERTINO	CA US 9501407263	6
02526	SEMICON INC	BURLINGTON	MA 0180311961	2
02569	CRYSTALONICS, DIV TELEDYNE	CAMBRIDGE	MA 0214012498	2
02619	SOLITRON DEVICES INC (DIODES)	TAPPAN	NY 1098313327	35
02634	SPRAGUE ELECTRIC SEMICON DIV	CONCORD	NH 0330113606	4
02664	SEMTECH CORP	NEWBURY PARK	CA 9132014099	1
02682	ITT SEMICONDUCTORS DIV	TUSTIN	CA US 9268014433	3
02688	MICROSEMI CORP	SCOTSDALE	AZ US 8525214552	0
02713	GENERAL INSTRUMENT CORP (DIODE)	HICKSVILLE	NY US 1180214936	6
02763	TELEDYNE SEMICONDUCTOR	MOUNTAIN VIEW	CA 9404315818	1
02783	INTL DIODE CORP	JERSEY CITY	NJ 0730416068	9
02788	M/A-COM INC	BURLINGTON	MA US 0180316179	8
02803	CODI SEMICONDUCTOR	LINDEN	NJ 0741016352	5
02865	ALPHA INDUSTRIES INC	WOBRUN	MA 0180117540	4
02883	SILICONIX INC	SANTA CLARA	CA US 9505417856	8
02910	SIGNETICS CORP	SUNNYVALE	CA US 9408618324	8
03038	INTL RECTIFIER CORP	LOS ANGELES	CA US 9006990011	7
03171	SOLITRON DEVICES INC	PALM BEACH	FL US 3340434677	6
03191	SOLITRON DEVICES INC (FETS, DIODES)	SAN DIEGO	CA 9212322229	34
03285	AMALOG DEVICES INC	NORWOOD	MA US 0206224355	4
03287	GENERAL SEMICONDUCTOR IND INC	TEMPE	AZ US 8528124444	4
03291	AVANTEK INC	SANTA CLARA	CA US 950545439	2
03334	WV PHILIPS ELCOMA	EINDHOVEN	NE 0287625403	0
03406	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA	CA US 9505227014	6
03447	HUGHES AIRCRAFT CO NEWP BEACH DIV	NEWPORT BEACH	CA 9266327832	0
03571	LANSDALE XSTR ELEK CO ADVANCE LINE	COLMAR	PA 1891532113	7

### No. Manufacturer

03627	SOLID STATE DEVICES INC	LA MIRADA	CA 9063830043	7
03714	INTERSIL INC	CUPERTINO	CA CA 9501432293	3
03776	KERTRON INC	RIVIERA BEACH	FL 3340433904	2
03793	SILICON GENERAL INC	SAN JOSE	CA US 9513443333	7
03799	HARRIS CORP	MELBOURNE	FL US 3290134371	4
03811	INTEL CORP	SANTA CLARA	CA US 9505434649	7
04200	SPRAGUE ELECTRIC CO	LEXINGTON	MA US 0217356289	2
04486	ITT CORP	NEW YORK	NY US 1002271468	7
04504	GENERAL INSTRUMENT CORP	CLIFTON	NJ US 0701271744	7
04507	TRW INC	CLEVELAND	OH US 4412471785	0
04550	GENERAL ELECTRIC CO	FAIRFIELD	CT US 0643072799	0
04583	BRADLEY SEMICONDUCTOR CORP	NEW HAVEN	CT 0650673506	1
05088	VARO INC	GARLAND	TX US 7504618546	0
05131	ELECTRONIC DEVICES INC	YONKERS	NY 1071083701	8
05176	AMERICAN SHIZUKI CORP	CANOGA PARK	CA US 9130484411	3
05644	PHILCO-FORD CORP SIERRA ELEK OPN	MENLO PARK	CA 9402594668	0
05695	M/A-COM DBA MICROWAVE ASSOC. INC	BURLINGTON	MA 0180396341	2
05840	DELCO ELEK DIV OF GENL MOTORS CORP	KOKOMO	IN 5315499974	4
05946	VALVO GMRB	HAMBURG	GM 200002540	9
06002	R T C DIVISION COGECO	PARIS	FR 0	0
06023	MULLARD LTD	EG	K0004	6
06078	INTL RECTIFIER LTD	IR	0	0
06121	SIEMENS AG	MUNICH	GM 8000	8
06338	SGS ATES	MILAN	IT A3500	8
06344	FUJITSU MICROELECTRONICS INC	SANTA CLARA	CA US 9505480167	6
06354	TOSHIBA CORP	TOKYO	JP S0562	5
06418	HUGHES INTERNATIONAL LTD	GLENROTHES FIFE	SC K3444	8
06563	SIEMENS CORP COMPONENTS GROUP	SCOTSDALE	AZ 8525212424	31
06592	SGS-ATES (14)	MILAN	IT A3500	0
06632	SEMICONDUCTOR TECHNOLOGY INC	STUART	FL 1135650891	4
07050	MICRO POWER SYSTEMS	SANTA CLARA	CA 9505054186	8
07221	SUPERTEX INC	SUNNYVALE	CA 94086	5
07766	LA RADIODIETIQUE COMPELEC	VILLEVRBANNE	FR 9	9
08709	PANASONIC INDUSTRIAL CO	SECAUCUS	NJ US 07094	8
08852	METELICS CORP	SUNNYVALE	CA 94086	6
09283	TOPAZ SEMICONDUCTOR	SAN JOSE	CA US 95132	3
09924	UNITRODE CORP	LEXINGTON	MA 0	23
10674	DIODE TRANSISTOR CO	UNION	NJ US 0	0
10743	HP DIV 57 SMTS	SANTA ROSA	CA 3	3
10818	H-IBRAPE ELECTRONICA	BR	1	1
10881	THOMSON-CSF	COURBEVOIE	FR 78140	5
11708	THOMSON SEMICONDUCTORS	VILIZY VILLACOUC	FR 78100	5
12010	FUJITSU LTD	TOKYO	JP 1800	5

### HP P/N Mfr. Desc.

1820-0225	03406	LM103-2.4	1850-0065	01921	2N1370
1820-0240	01921	CA3026	1850-0074	01921	2N1396
1820-0352	01921	CA3018	1850-0075	01979	2N779A
1820-1804	02037	MPQ6842	1850-0076	01698	2N2556
1821-0001	01921	CA3046	1850-0078	02037	2N398B
1821-0002	01921	CA3045	1850-0085	02037	2N964
1821-0006	02923	SM6501FC	1850-0090	01921	2N1183B
1850-0003	03334	2N1516	1850-0093	03571	2N1499A
1850-0018	01921	2N384	1850-0096	01698	2N2189
1850-0020	01698	2N1143	1850-0099	06632	2N964
1850-0031	01698	2N526	1850-0103	01698	2N2190
1850-0032	01698	2N404	1850-0105	01979	2N2048
1850-0041	01921	2N384	1850-0110	02713	2N604
1850-0043	03334	2N1516	1850-0111	01698	2N404A
1850-0051	02634	2N1500	1850-0112	01698	2N2001
1850-0052	02713	2N596	1850-0113	01698	2N1997
1850-0055	04200	2N2360	1850-0114	01921	2N1995
1850-0058	02037	2N174	1850-0119	02037	2N963
1850-0059	02037	2N174	1850-0126	01921	2N2869
1850-0061	01698	2N2561	1850-0127	02713	2N519A
1850-0062	06632	2N404A	1850-0130	02037	2N1193
1850-0064	01921	2N1183	1850-0131	02037	2N1192

1850-0137	01979	2N976	1850-0418	02713	2N600
1850-0146	02619	2N1501	1850-0439	02037	MA44004A
1850-0150	05840	2N1358	1850-0440	02037	MP603
1850-0151	01698	2N1309	1850-0441	06632	2N779A
1850-0154	01979	2N508A	1851-0002	01698	2N388A
1850-0156	01979	5A617	1851-0003	01698	2N388A
1850-0162	01921	2N2147	1851-0006	01973	2N165A
1850-0163	02037	2N2635	1851-0007	01973	2N165A
1850-0166	01698	2N2188	1851-0009	01698	2N388A
1850-0170	01698	2N1377	1851-0011	01698	2N1306
1850-0172	01698	2N2996	1851-0021	01698	2N388A
1850-0173	01698	2N1307	1851-0024	01698	2N388A
1850-0178	01698	2N1038	1851-0025	01698	2N1306
1850-0179	02037	2N3323	1851-0031	01698	2N1605
1850-0180	01698	2N1374	1851-0034	01698	2N1605A
1850-0181	01698	2N2552	1851-0037	01698	2N1308
1850-0182	01698	2N1378	1851-0038	01973	2N1121
1850-0194	05840	2N1523	1851-0041	03334	2N2430
1850-0404	01698	2N1305	1853-0002	02619	2N1027
1850-0406	02783	2N1760	1853-0006	02037	2N1334
1850-0409	01698	2N2664	1853-0007	02037	2N3251
1850-0417	02713	2N597	1853-0008	02037	2N3250





















UES-1106	09914	1901-1106	USD 745C	00046	1906-0265	VN10KE	02883	1855-0545
UES1105	09914	1901-1110	USD840	00046	1901-1218	VN10KM	02883	1855-0423
UES1303	09914	1901-1111	USD945	00046	1901-1156	VN10LE	02883	1855-0560
UES1305	09914	1901-1108	V334X	05088	1901-0848	VN2222L	02883	1855-0556
UES1306	09914	1901-1109	V336X	05088	1901-0882	VN2222LL	02883	1855-0598
UES2602R	00046	1906-0254	V810X	05088	1901-1105	VN66AD	02883	1855-0724
UES2603	00046	1906-0304	VCR2N	02883	1855-0265	VN66AF	02883	1855-0275
UES2605	00046	1906-0277	VCR3P	02883	1855-0205	VP0300L	02883	1855-0550
UES601R	00046	1901-0953	VE48	05088	1906-0006	VP0300L	02883	1855-0686
UES803	00046	1901-1127	VG-2X	05088	1901-0845	VP0300M	02883	1855-0526
UES803R	00046	1901-0961	VH148	05088	1906-0052	VP1008B	02883	1855-0722
UES804	00046	1901-0904	VHE1404	05088	1901-1157	VP1204N2	07221	1855-0649
UF4004	02713	1901-1149	VHE2402A	05088	1906-0270	VQ1000J	02883	1855-0591
ULN-2003A	04200	1858-0047	VHE2404	05088	1906-0301	VQ1001J	02883	1858-0116
ULN-2003A (SEL)	04200	1858-0099	VJ148X	05088	1906-0079	VQ1001P	02883	1855-0585
ULN-2004A	04200	1858-0061	VJ848	05088	1906-0309	VQ1006P	02883	1855-0620
ULN-2023A	04200	1858-0097	VJ848TT	05088	1906-0085	VQ2001P	02883	1855-0650
ULN-2033A	04200	1858-0067	VK248	05088	1906-0205	VS148	05088	1906-0240
ULN-2803A	04200	1858-0069	VKP 248	05088	1906-0264	VSK12	05088	1906-0263
ULN-2804A	04200	1858-0082	VL447	05088	1906-0216	VSK231	05088	1906-0278
ULN-2804A	04200	1858-0084	VM28X	05088	1906-0289	VSK3040T	05088	1906-0238
ULN-2805A	04200	1858-0073	VMP-1	02883	1855-0263	VSK530	05088	1901-1220
ULN-2813A	04200	1858-0072	VN0104N3	07221	1855-0546	VSK540	05088	1901-0976
ULN-2815A-2	04200	1858-0065	VN0106N6	07221	1858-0105	VSK71	05088	1901-0960
ULN2003D	02910	1858-0104	VN0300L	02883	1855-0555	VX30	00046	1901-0984
ULN2082A	04200	1858-0037	VN0300M	02883	1855-0525	W02M	02713	1906-0256
ULQ-2823A	04200	1858-0121	VN0300M	02883	1855-0582	X45H281	04550	1853-0363
ULQ2804A	04200	1858-0108	VN0610L	02883	1855-0684	ZSK533	00039	1855-0571