

Field-Effect Transistors Part II - CMOS

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Introduction

In the last issue of *Bench Briefs*, we discussed the characteristics of two fundamental types of field-effect transistors, the JFET and MOSFET. We learned that the name field-effect transistor arises from the fact that current flow between two of the device terminals (source and drain) is controlled by an electric field, which in turn is established by a voltage applied to a third terminal (gate).

JFETs

The schematic structure of a *n*-channel junction FET is shown in Figure 1. If a voltage is applied across the channel so that the drain is positive with respect to the source, as shown in Figure 1b, electrons flow through the channel from the source to the drain producing drain current. The magnitude of the drain current is determined by the conductivity of the channel and the drain-to-source voltage. When a negative voltage is applied to the gate, it will be reverse-biased. A depletion layer is formed about the *pn* junction between the gate and channel, as shown in Figure 1c. Therefore, with a constant value of drain-to-source voltage, the drain current can be varied by the gate-to-source voltage. If the gate voltage is sufficiently negative, the depletion layer will extend across the whole of the channel and drain current becomes very small; the channel is then said to be "pinched off." JFETs are therefore known as depletion or "normally-on" devices.

Insulated Gate MOSFETs

We also learned about enhancement and depletion, where enhancement

means that the channel must be improved for current to flow (i.e., zero bias will cause minimum current flow). Enhancement-type MOSFETs are diagrammed with a broken line representing the channel. Depletion-type MOSFETs are "normally-on" devices where the channel must be depleted to reduce the current flow (i.e., current flow occurs with zero bias). They are diagrammed with an unbroken line representing the channel. A significant difference between JFETs and MOSFETs is that all JFETs are of the depletion type while MOSFETs can be either depletion or enhancement.

MOSFETs can be either *p*-channel or *n*-channel devices. In an *n*-channel MOSFET, the charge carriers are electrons. In a *p*-channel MOSFET, the charge carriers are holes. The characteristics of the *p*-channel MOSFET are similar to those of the *n*-channel except that the polarities of the gate-to-source and drain-to-source voltages are negative instead of positive.

The *n*-channel and *p*-channel MOSFETs described so far are ideal in the sense that a small gate voltage of the correct polarity will form the conducting inversion layer between the source and the drain. In practice, naturally-occurring internal positive charges in the gate oxide and other effects will result in an *n*-type channel being formed even at zero gate voltage. Thus the voltage at which the device will start to conduct (V_T) will be negative.

The *p*-channel MOSFET will not conduct (normally off), and the *n*-channel MOSFET will not stop conducting (normally on) until the gate voltage (V_G) is more negative than V_T . The *p*-channel MOSFET is called an enhancement device as it does not conduct at zero gate voltage, whereas the

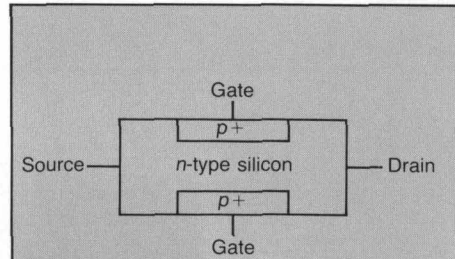


Figure 1a. Schematic structure of junction field-effect transistor.

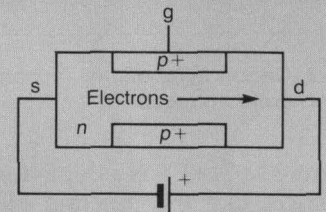


Figure 1b. Bias to produce drain current.

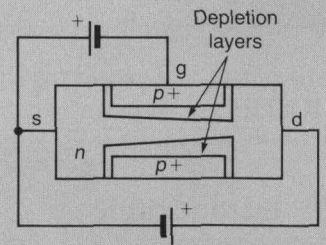


Figure 1c. Depletion layers produced by gate voltage and drain current voltage drop

Figure 1. Basic structure of *n*-channel JFET.

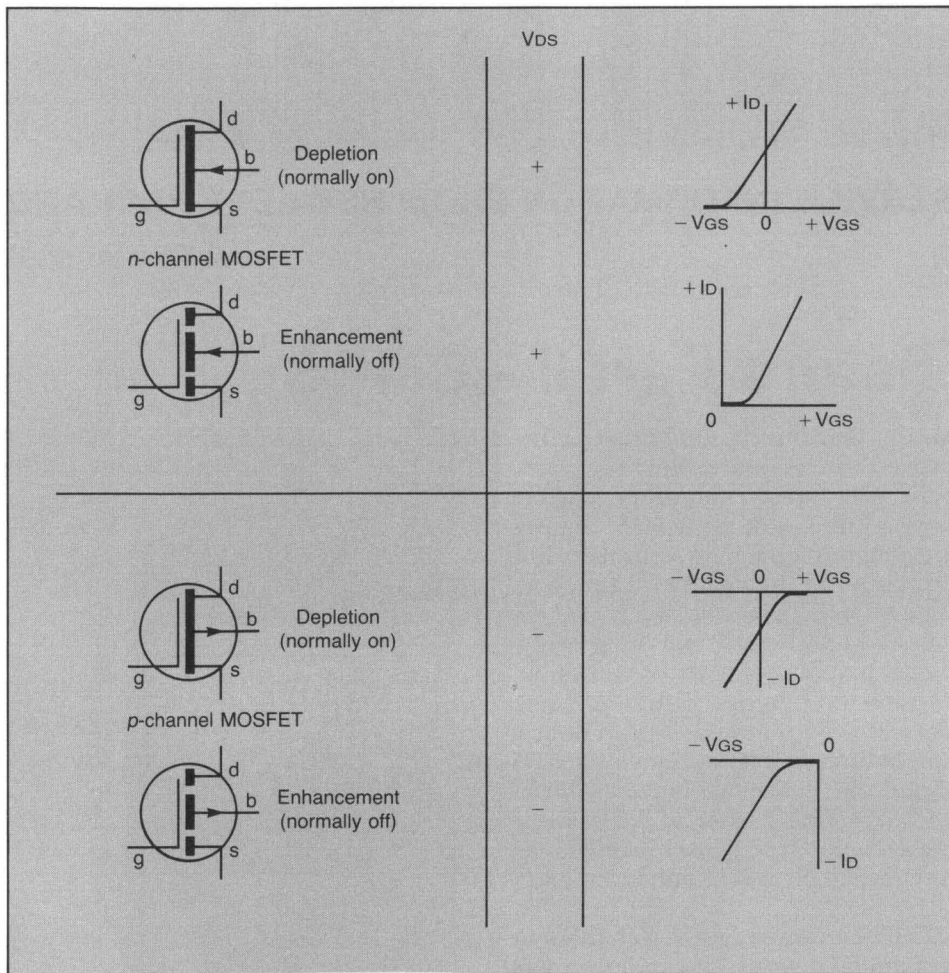


Figure 2. Circuit symbols for *n*-channel and *p*-channel MOSFETs showing polarities of gate and drain voltages.

n-channel MOSFET is a depletion device since, like the junction FET, it conducts at zero voltage. Unlike the junction FET, however, it can be used with the channel either depleted or enhanced.

With careful processing, the threshold voltage can be controlled so that enhancement *n*-channel MOSFETs and depletion *p*-channel MOSFETs can also be made.

The four possible types of insulated-gate MOSFET are shown with the circuit symbols in Figure 2.

CMOS Introduction

Complementary symmetry metal oxide semiconductor (CMOS) is currently the most popular digital circuit technology. CMOS logic circuits are available as standard small-scale integrated (SSI) and medium-scale integrated (MSI) circuits for use in con-

ventional digital system design. CMOS is also used in the design of general-purpose very-large-scale integrated circuits (VLSI) such as memory and microprocessors. For custom and semi-custom VLSI, CMOS is the technology of choice. Furthermore, CMOS is currently popular in analog-circuit applications as well.

CMOS Inverter

The inverter shown in Figure 3 utilizes two matched enhancement-type MOSFETs; QN is an *n*-channel and QP is a *p*-channel. To show how the inverter works, we will set the input (V_I) to zero volts (logic 0) and then at V_{DD} volts (logic 1). In both cases, consider the *n*-channel device (QN) to be the driving transistor and the *p*-channel device (QP) to be the load. Also keep in mind that a bias of zero volts between a gate and substrate (source) will keep the transistor off, but a difference of potential there will turn it on.

In the first case, when V_I is at V_{DD} (see Figure 3a), QN is on since the gate is biased at V_{DD} while the source is still at ground. QP is off. This causes the output (V_O) to be nearly zero (typically less than 10 mV). But the current through the two devices is nearly zero because there is no direct path from V_{DD} to ground.

In the second case, when V_I is at zero volts (see Figure 3b), QN is off since the gate is now at the same potential as the source; QP is on. This causes the output (V_O) to be almost equal to V_{DD} (typically less than 10 mV below V_{DD}). However, the current through the two devices is still nearly zero because there is still no direct path from V_{DD} to ground.

From the above, we conclude that the basic CMOS logic inverter behaves as an "ideal" logic element; the output voltage is almost equal to zero volts or V_{DD} volts and the power dissipation is almost zero. Stated another way, when a *p*-channel and an *n*-channel MOSFET are connected together in such a manner that there never exists a dc current path from the supply line to ground except through an "off" MOSFET, the only current draw will be leakage current, which is negligible. Some power is consumed when logic levels are changing because the gate circuit capacitor, in addition to all stray capacitance, must be charged or discharged, resulting in current flow. A rule of thumb about CMOS power consumption is that CMOS will require as much power as bipolar when operated at maximum switching speeds because of the power required to charge or discharge each MOSFET's input capacitance. CMOS power consumption decreases with switching frequency, becoming extremely small during static conditions.

It should be noted, however, that in spite of the fact that the quiescent current is zero, the load-driving capability of the CMOS inverter is high. For instance, with V_I high, transistor QN can sink a relatively large load current. This current can quickly discharge the load capacitance. Because of its action in sinking load current, and thus pulling the output voltage down toward ground, transistor QN

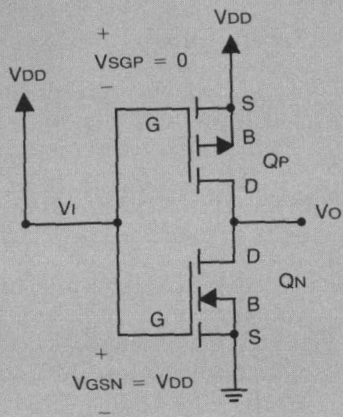


Figure 3a. Inverter Input High

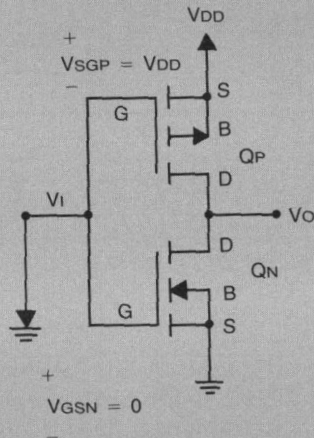
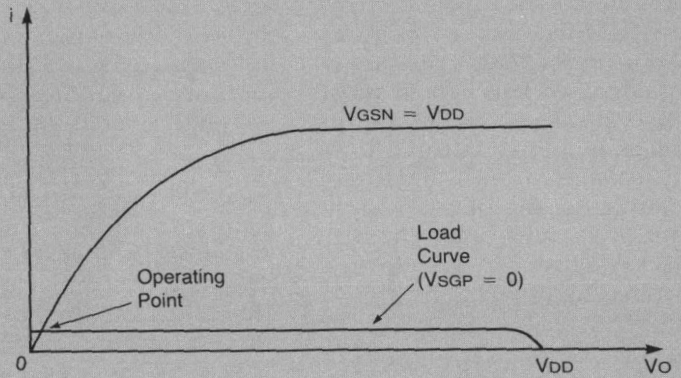
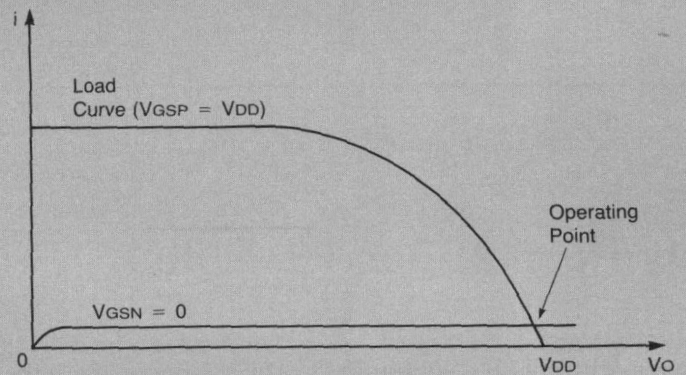


Figure 3b. Inverter Input Low



V_i	High (V_{DD})	Low (0V)
QP	off	on
QN	on	off
V_o	Low (0V)	High (V_{DD})

Figure 3. Basic CMOS Inverter

is known as the "pull-down" device. Similarly, with the input low, transistor QP can source a relatively large load current. This current can quickly charge up a load capacitance, thus pulling the output voltage up toward V_{DD} . Hence, QP is known as the "pull-up" device.

Noise Immunity

There are other advantages to CMOS, an important one being noise immunity. Looking back at Figure 3, with V_i at 0 volts, what voltage would be measured at V_o ? This is another way of asking how much voltage is dropped

across the source-drain of QP. Since no current is flowing, there will be very little voltage drop there, typically 10 mV. Therefore, any noise injected in the pc trace feeding QP and QN will have a harder time driving the line down to the threshold than if the line were at a lower potential.

Also, what happens if the power supply voltage were to double? In bipolar ICs, if the power supply were to change from 5 volts to 10 volts, by how much would the power dissipation increase? Since power varies as the square of the voltage, the power would quadruple! This would most likely cause the device to fail. But in CMOS there is no real current flowing, (only leakage current), and therefore variations in the power supply voltage are not catastrophic. In fact, most CMOS devices can operate on a supply from 3 to 18 volts.

Electrostatic Discharge (ESD)

As mentioned earlier, because of the very high input resistance of MOS devices, static electricity can cause a charge to accumulate on the input

capacitances during handling. Such charges can cause large voltages to appear at the MOSFET gate, which in turn can cause breakdown of the thin gate oxide. CMOS circuits include input diode networks, together with appropriate series resistors for the purpose of limiting the voltages that may appear at the MOS device inputs.

Since the input resistances of a CMOS gate are very high, a gate input left unconnected will float at an unspecified voltage. However, during this condition, leakage currents of the input protection diodes are such that the output devices enter the active mode, allowing large currents to flow that cause overheating. Accordingly, it is important that spare gate inputs be connected to an appropriate local power-supply pin or paralleled with

another input (keeping in mind the effect of this on the gate switching threshold).

Conclusion

The low static current flow of CMOS has additional benefits for circuits such as a volatile memory that must be kept operating when the power fails. This can be accomplished easily with a small battery or large capacitor.

Thus the combination of low power consumption, high noise immunity and high tolerance to power supply variations makes CMOS extremely attractive for many areas. However, CMOS requires somewhat more complicated circuits than NMOS for a given function, and certainly requires more sophisticated troubleshooting techniques. □

Safety-Related Service Notes

Service notes from HP relating to personal safety and possible equipment damage are of vital importance to our customers. To make you more aware of these important notes, they are printed on paper with a red border, and the service note number has an "-S" suffix. In order to make you immediately aware of any potential safety problems, we are highlighting safety-related service notes here with a brief description of each problem. Also, in order to draw your attention to safety-related service notes in the service note index, each appropriate safety-related service note is highlighted with a contrasting color.

HP E2500A Frequency Agile Signal Simulator (HP 8791A Model 10) and HP 86792A Agile Upconverter

These HP signal generators have a mismarked graphic on the fuse warning label. This mismarking could cause a potential fire hazard due to

an incorrect fuse being installed. The following serial numbers are affected:

E2500A - 0000A00000/3015A00145
86792A - 0000A00000/3015A00148

Order a new fuse warning label kit (HP P/N 86792-60324), which includes new fuses and a new label. Also order Safety Service Notes E2500A-06-S and 86792A-06-S for more information.

HP 3588A and 35660A Spectrum Analyzers

The information on the instrument's right rear panel for a line voltage of 230V is not correct. The label indicates the replacement fuse for the 230V is a fast acting 4A/250V fuse. The replacement fuse needs to be a fast acting 3A/250V fuse. The affected serial numbers are:

3588A - 3005A00100/3005A00200
35660A - 3005A01349/3005A01447

The replacement label part number is 35672-80401 and is applicable to both instruments. Order Safety Service Notes 3588A-01-S and 35660A-04-S for more information.

HP 5342A and 5343A Microwave Frequency Counters

The following microwave frequency counters have unstable cabinet framework supports that may cause the top cover to work loose upon application of an added force. Since the carrying handle is attached to the top cover, the unit could fall if it is lifted by the handle.

5342A - 0000A00000/2636A10914
5343A - 0000A00000/2636A02416

Order Safety Service Notes 5342A-58 and 5343A-31 for more information. Note that on these particular Safety Service Notes, the "-S" safety designator was inadvertently left off. New service notes are being reissued. □

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 substi-

tute 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	No.	Manufacturer
00039	NEC ELECTRONICS INC	03799	HARRIS CORP
00046	UNITRODE CORP	03811	INTEL CORP
00746	ROHM CORP	04078	SGS-THOMSON MICROELECTRONICS INC
01250	GTE SYLVANIA ELEK COMPONENTS GROUP	04200	SPRAGUE ELECTRIC CO
01352	GERMANIUM POWER DEVICES CORP	04486	ITT CORP
01590	PLESSEY SEMICONDUCTORS	04504	GENERAL INSTRUMENT CORP
01691	TRW INC SEMICONDUCTOR DIV	04507	TRW INC
01698	TEXAS INSTRUMENTS INC	04550	GENERAL ELECTRIC CO
01921	RCA CORP	04583	BRADLEY SEMICONDUCTOR CORP
01973	GE CO SEMICONDUCTOR PROD DEPT	05027	LUCAS LEDEX INC
01979	LANSDALE TRANSISTOR & ELEK INC	05088	VARO INC
01991	TRANSITRON ELECTRONIC CORP	05131	ELECTRONIC DEVICES INC
02037	MOTOROLA INC	05176	AMERICAN SHIZUKI CORP
02062	HP DIV 05 MSD	05695	M/A-COM DBA MICROWAVE ASSOC. INC
02086	WESTINGHOUSE ELEK CORP SEMICON DEPT	05840	DELCO ELEK DIV OF GENL MOTORS CORP
02158	EDAL INDUSTRIES INC	05942	PHILIPS ELECTRONIK INDUSTRIE GMBH
02180	PRECISION MONOLITHICS INC	05946	VALVO GMBH
02237	FAIRCHILD SEMICONDUCTOR CORP	06002	R T C DIVISION COGECO
02526	SEMICON INC	06023	MULLARD LTD
02537	DIODES INC	06078	INTL RECTIFIER LTD
02569	CRYSTALONICS, DIV TELEDYNE	06121	SIEMENS AG
02619	SOLITRON DEVICES INC (DIODES)	06338	SGS ATES
02634	SPRAGUE ELECTRIC SEMICON DIV	06344	FUJITSU MICROELECTRONICS INC
02664	SEMTECH CORP	06354	TOSHIBA CORP
02682	ITT SEMICONDUCTORS DIV	06418	HUGHES INTERNATIONAL LTD
02688	MICROSEMI CORP	06563	SIEMENS CORP COMPONENTS GROUP
02713	GENERAL INSTRUMENT CORP (DIODE)	06592	SGS-ATES (14)
02763	TELEDYNE INDUSTRIES INC	06632	SEMICONDUCTOR TECHNOLOGY INC
02783	INTL DIODE CORP	07050	MICRO POWER SYSTEMS
02788	M/A-COM INC	07221	SUPERTEX INC
02803	CODI SEMICONDUCTOR	07766	LA RADIOTECHNIQUE COMPELEC
02865	ALPHA INDUSTRIES INC	08709	PANASONIC INDUSTRIAL CO
02883	SILICONIX INC	08852	METELICS CORP
02910	SIGNETICS CORP	09283	TOPAZ SEMICONDUCTOR
03038	INTL RECTIFIER CORP	09914	UNITRODE CORP
03171	SOLITRON DEVICES INC	10646	SANKEN ELECTRIC CO LTD
03191	SOLITRON DEVICES INC (FETS, DIODES)	10674	DIODE TRANSISTOR CO
03285	ANALOG DEVICES INC	10743	HP DIV 57 SRCT
03287	GENERAL SEMICONDUCTOR IND INC	10818	H-IBRAPE ELECTRONICA
03291	AVANTEK INC	10881	THOMSON-CSF
03334	NV PHILIPS ELCOMA	11021	SEMI DICE, INC
03406	NATIONAL SEMICONDUCTOR CORP	11699	CENTRAL SEMICONDUCTOR CORP
03447	HUGHES AIRCRAFT CO NEWP BEACH DIV	11708	THOMSON SEMICONDUCTORS
03571	LANSDALE XSTR ELEK CO ADVANCE LINE	11981	POWEREX
03627	SOLID STATE DEVICES INC	12010	FUJITSU LTD
03714	INTERSIL INC	12810	RECTRON
03776	KERTRON INC	12928	MICRO QUALITY SEMICONDUCTOR INC
03793	SILICON GENERAL INC	13127	LINEAR INTEGRATED SYSTEMS INC
			MELBOURNE FL US 3290134371
			SANTA CLARA CA US 9505434649
			PHOENIX AZ US 8502250088
			LEXINGTON 1A US 0217356289
			NEW YORK NY US 1002271468
			CLIFTON NJ US 0701271744
			CLEVELAND OH US 4412471785
			FAIRFIELD CT US 0643072799
			NEW HAVEN CT 0650673506
			VANDALIA OH US 4537781840
			GARLAND TX US 7504618546
			YONKERS NY 1071083701
			CANOGA PARK CA US 9130484411
			BURLINGTON MA 0180396341
			KOKOMO IN 5315499974
			HAMBURG GM 3500D2332
			HAMBURG GM 2000D2540
			PARIS FR
			EG K0004
			IR
			GM 8000
			MILAN IT A3500
			SANTA CLARA CA US 9505480167
			TOKYO JP S0562
			GLENROTHES FIFE SC K3444
			SCOTSDALE AZ 8525212954
			MILAN IT A3500
			STUART FL 1135650891
			SANTA CLARA CA 9505054186
			SUNNYVALE CA 94086
			VILLEVRBANNE FR
			SECAUCUS NJ US 07094
			SUNNYVALE CA
			SAN JOSE CA US 95132
			LEXINGTON MA
			TOKYO JP
			UNION NJ US
			SANTA ROSA CA
			BR
			COURBEVOIE FR
			SANTA CLARA CA
			HAUPTPAUGE NY US 11788
			VELIZY VILLACOU FR 78140
			YOUNGWOOD PA US 15697
			TOKYO JP 100
			TAIPEI TN
			GARLAND TX US 75042
			FREMONT CA US 94539

Transistor/Diode Cross Reference – HP P/N to JEDEC No.

HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.
1820-0225	03406	LM103-2.4	1853-0328	01921	2N6211	1853-0527	03334	BFQ-32	1853-0684	02037	MMBTA56
1820-0240	01921	CA3026	1853-0332	02037	MJE1091	1853-0529	02037	MD1130	1853-0685	02037	2N4126
1820-0352	01921	CA3018	1853-0334	02037	MJE1090	1853-0536	02037	MPS6534	1853-0686	02037	2N4261
1820-1804	02037	MPQ6842	1853-0336	02037	MPSA92	1853-0537	03406	TIP32C	1853-0687	03334	BST16
1821-0001	01921	CA3046	1853-0340	02037	2N5884	1853-0539	02037	MDS60	1853-0688	03334	BSR33
1821-0002	01921	CA3045	1853-0341	02037	MJE172	1853-0540	02037	2N5771	1853-0689	02037	MPF5211
1821-0006	02237	SH6501PC	1853-0342	01921	40831	1853-0542	02037	2N6491	1853-0690	03334	BD140
1850-0062	06632	2N4044A	1853-0344	02037	2N5876	1853-0543	01698	TIP647	1853-0691	03334	BXC53AH
1850-0064	01921	2N1183	1853-0347	02037	MJE700	1853-0544	03334	BFQ51	1853-0692	02037	BC636
1850-0075	01979	2N779A	1853-0348	02037	MJ4645	1853-0545	10881	BXC18	1853-0694	02037	TIP147
1850-0076	01698	2N2556	1853-0349	01698	2N5333	1853-0547	02037	MJE2901T	1853-0697	02037	MJD127
1850-0093	03571	2N1499A	1853-0350	01698	TIP-34	1853-0548	02037	2N6420	1853-0698	06121	BFT93
1850-0099	06632	2N964	1853-0351	02037	2N6053	1853-0550	00746	2SB737	1853-0699	03334	PXT4403
1850-0126	01921	2N2869	1853-0353	02037	MPS-U55	1853-0551	03406	TK4030	1853-0701	02037	MJD350
1850-0137	01979	2N976	1853-0356	01698	TIP42	1853-0552	02037	MPSW56	1853-0703	06121	BC415C
1850-0150	05840	2N1358	1853-0360	02037	2N3799	1853-0553	03334	A440	1853-0704	02037	MJD42C
1850-0151	01698	2N1309	1853-0363	04550	K45H281	1853-0557	02037	BD416	1853-0705	02037	MMBR536
1850-0154	01979	2N508A	1853-0364	02037	MJE701	1853-0558	02037	2N6554	1853-0706	02037	MMBT2640
1850-0156	01979	SA617	1853-0365	02037	2N6489	1853-0559	02037	MPSW55	1853-0707	02037	2N3906-STYLE D
1850-0170	01698	2N1377	1853-0366	02237	BC321C-18	1853-0563	02037	2N3906 (SEL)	1853-0708	03406	2N4917-J252
1850-0172	01698	2N2996	1853-0367	02037	MJE233	1853-0565	02037	2N4403	1853-0709	02037	TIP36C
1850-0173	01698	2N1307	1853-0369	02037	MJE371K	1853-0566	02037	MMBTA55	1853-0710	10646	2SAL186
1850-0181	01698	2N2552	1853-0371	01921	2N6107	1853-0567	02037	MMBT3906	1853-0711	02037	MJD45H11-1
1850-0194	05840	2N1523	1853-0372	02037	MJE5195	1853-0568	02037	MMBT5087	1853-0712	03334	BSR60
1850-0406	02783	2N1760	1853-0377	01698	TIP 115	1853-0571	02037	2N2907A (SELECTED)	1853-0713	02037	MJ6503
1850-0441	06632	2N779A	1853-0378	02037	2N5986 (SELECTED)	1853-0572	02037	MPSA76	1853-0716	02037	MPSA64-5
1851-0024	01698	2N388A	1853-0381	01698	2N6331	1853-0573	10881	2N6709	1853-0717	03334	BFT92R
1851-0025	01698	2N1306	1853-0383	02037	2N6296	1853-0574	02037	2N3468	1853-0718	02037	MPF5583
1851-0037	01698	2N1308	1853-0387	02037	MJ2500	1853-0576	02037	2N5416 (SEL)	1854-0005	02237	2N708
1851-0041	03334	2N2430	1853-0391	02037	2N6051	1853-0578	00039	NE90115	1854-0009	02037	2N709
1853-0006	02037	2N3134	1853-0392	02037	2N3741	1853-0580	02037	MMBT4403	1854-0010	02037	2N834
1853-0007	02037	2N3251	1853-0394	02037	MJE 2370	1853-0581	02037	MMBT5401	1854-0011	02037	2N835
1853-0008	02037	2N3250	1853-0395	02037	MPS-A70	1853-0583	04507	LT5239	1854-0013	02037	2N2218A
1853-0012	02037	2N2904A	1853-0398	02037	MJE 210	1853-0584	02037	MJE5850	1854-0014	02037	2N2223
1853-0013	01698	2N2904	1853-0399	03406	2N3467	1853-0585	02037	2N5679	1854-0021	02237	2N918
1853-0014	02237	2N3304	1853-0404	01698	A5T4260	1853-0587	02037	MPS4250A	1854-0022	02237	SL7843
1853-0019	01698	2N1131	1853-0405	02037	2N4209	1853-0588	00039	2SAL226	1854-0026	01973	2N335
1853-0023	01698	2N3703	1853-0406	01921	2N6476	1853-0589	02037	MD4260	1854-0030	02237	2N2369
1853-0028	02037	2N3634	1853-0407	02037	2N5880	1853-0590	02037	2N4036	1854-0032	02037	2N2221
1853-0031	02037	2N3789	1853-0412	02037	MPSA65	1853-0594	02037	2N3808	1854-0033	01973	2N3391
1853-0036	02037	MPS 6523 (SEL)	1853-0413	02037	2N6049	1853-0595	02037	D41D4	1854-0039	01921	2N3053S
1853-0043	02037	MPS 6523	1853-0414	02037	2N6423	1853-0597	02237	2N4917	1854-0048	01921	2N2857
1853-0045	01921	2N4036	1853-0416	02037	MPS-A64	1853-0599	03334	BCF70	1854-0053	02037	2N2218
1853-0051	01921	2N4037	1853-0417	02037	MJE 253	1853-0608	02037	MPSA55	1854-0057	01973	2N3855A
1853-0052	02037	2N3740	1853-0418	02037	2N6317	1853-0609	02037	MXT2907A	1854-0062	01921	2N1701
1853-0053	02037	2N5880	1853-0419	02037	2N4403	1853-0610	02037	MXR5583	1854-0063	01921	2N3055
1853-0057	02634	3N91	1853-0421	02037	2N4398	1853-0611	03334	BF569	1854-0066	01973	2N2925
1853-0058	02237	S32248	1853-0422	01698	2N4033	1853-0612	03334	BFT93	1854-0067	01921	2N2102
1853-0059	02037	2N3791	1853-0423	02037	MPS U-60	1853-0613	02037	MXT3906	1854-0071	00746	CP4071
1853-0071	02037	2N3494	1853-0424	01698	TIP-126	1853-0614	02037	2C3906	1854-0072	01921	2N3054
1853-0072	02237	2N4034	1853-0425	02037	2N5883	1853-0616	03334	BFT92	1854-0079	01921	2N3439
1853-0081	02237	2N4258	1853-0428	02037	2N5684	1853-0617	02037	2N6298	1854-0084	02037	2N3232
1853-0083	02037	SD4753 (SELECTED)	1853-0429	02037	2N3762	1853-0620	02037	MMBR4957	1854-0086	05840	DTS413
1853-0084	02037	2N4918	1853-0430	02037	2N4959	1853-0621	06354	2SAL302	1854-0090	03334	2N3053LV 2449
1853-0086	03406	2N5087	1853-0431	02037	TIP42C	1853-0622	00039	2SAL227A	1854-0092	03406	PN3563-5
1853-0087	01921	4039A	1853-0436	02037	MJE170	1853-0624	00039	2SAL151	1854-0093	04550	2N3415
1853-0089	02237	2N4917	1853-0437	02037	2N6520	1853-0625	02037	MPF545	1854-0094	02037	MPS3646
1853-0204	02037	2N4920	1853-0439	01921	2N6248	1853-0626	02037	MPS2907A	1854-0095	01921	40346
1853-0205	02037	2N2907	1853-0440	02037	MM4018	1853-0629	00039	2SAL220	1854-0098	04550	2N3392
1853-0206	02237	2N4028	1853-0442	02037	2N3867	1853-0630	00039	2SD1288	1854-0210	02037	2N2222
1853-0212	02037	2N5194	1853-0447	02037	MJE253	1853-0631	00039	2SB965	1854-0211	02037	2N2501
1853-0213	02037	2N4236	1853-0448	02037	MPSH81	1853-0632	00039	2SAL227	1854-0213	01698	2N2538
1853-0217	02037	MPS-404A	1853-0449	02037	MPS-U95	1853-0633	00039	2SA985	1854-0214	01921	2N1482
1853-0218	03406	NS65098	1853-0450	02037	MJE371K (SELECTED)	1853-0634	02037	MJE371K	1854-0215	02037	2N3904
1853-0221	01921	2N5416	1853-0451	01698	2N3799	1853-0635	03714	IT130-TO71	1854-0216	01921	2N3441
1853-0222	02037	2N4919	1853-0453	01698	TIP36A	1853-0636	03334	2SA812	1854-0217	01921	2N3442
1853-0223	02037	2N4902	1853-0454	01698	TIP106	1853-0637	02037	MMBT4260	1854-0218	01973	2N3393
1853-0224	01921	2N5415	1853-0456	03406	PN4888-5	1853-0638	02037	2N3638	1854-0219	01973	2N3663
1853-0234	01698	TIP42A	1853-0457	02037	2N5400	1853-0639	02037	MPSH81	1854-0220	02037	2N3959
1853-0236	02037	2N5193	1853-0458	02037	MJE251	1853-0640	02237	2N4917	1854-0222	02037	MD2252
1853-0244	02037	MPS3640	1853-0462	02037	2N3635	1853-0641	02237	PN4250-18	1854-0224	01921	40250
1853-0258	02237	2N4035	1853-0463	02037	TIP105	1853-0642	06338	SGS126	1854-0226	02634	2N4384
1853-0264	02037	2N5401	1853-0464	01698	TIS-149	1853-0643	02037	MJD117	1854-0233	01921	2N3866
1853-0269	02037	2N3809	1853-0468	02037	TIP-127	1853-0645	02037	MMBT4126	1854-0234	01921	2N3440
1853-0271	02037	2N4403	1853-0469	02037	2N6109	1853-0650	02037	2N4405	1854-0238	03406	2N3933
1853-0276	02037	MM3906	1853-0472	04550	D45H2	1853-0652	02037	MJE15031	1854-0242	01921	2N3262
1853-0277	01921	2N5954	1853-0476	02037	MPS-U52	1853-0654	01698	TIP32F	1854-0246	02037	SPS 233
1853-0281	02682	2N2907A	1853-0477	02037	JANTXV2N3251A	1853-0655	02037	MJD45H11	1854-0248	03191	2N4044
1853-0287	02037	2N3250	1853-0478	02037	2N6490	1853-0657	02037	MJE5852	1854-0252	02037	2N3713
1853-0290	02037	JTX2907A	1853-0479	04550	72006	1853-0659	02037	2N3906 (SEL)	1854-0259	02037	2N3766
1853-0292	02037	2N3905	1853-0487	02037	2N6609	1853-0660	02037	MPSW51	1854-0260	02037	2N3227
1853-0293	02037	2N5583	1853-0488	02237	MPS4356	1853-0661	02037	2N6124	1854-0263	02037	2N3019
1853-0303	02037	2N5956	1853-0489	02037	MM4032	1853-0662	02037	MPSH54	1854-0264	02037	2N3715
1853-0305	02037	2N5875	1853-0490	02037	TIP107	1853-0663	02037	MD6002	1854-0267	06338	2N3013
1853-0308	02037	MM4645	1853-0493	03334	2N5415	1853-0664	02237	PN4250	1854-0270	02037	SPS 3627</

Transistor/Diode Cross Reference – HP P/N to JEDEC No.

HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.
1854-0311	01921	2N4240	1854-0648	02037	2N6300	1854-0839	02037	2N6497	1854-1032	02037	MRF581
1854-0313	01921	2N3771	1854-0653	02037	MJE521K	1854-0840	02037	TIP100	1854-1033	02062	HXTR-3675
1854-0315	01991	2N3633	1854-0654	02037	MJE5192	1854-0842	02037	2N3014	1854-1035	02037	MD1132
1854-0323	01921	2N2857	1854-0659	02037	MJE180	1854-0845	02037	MJ11012	1854-1036	03334	BFR94
1854-0324	02037	2N3739	1854-0662	02037	2N6296	1854-0847	02037	MJE12007	1854-1037	02037	MMBT3904
1854-0325	01921	2N3478	1854-0663	01698	TIP140	1854-0848	01691	2N6584	1854-1039	02037	2N4401
1854-0345	02037	2N5179	1854-0665	06023	BUS11	1854-0849	02037	MRF515	1854-1040	03406	2N5088
1854-0347	02037	2N4923	1854-0667	01921	2N3053	1854-0851	02037	2N4428	1854-1041	06354	2SC2878
1854-0349	02037	2N2913	1854-0669	02037	2N6057	1854-0860	00039	2SC2334	1854-1042	02037	MRF571 (SEL)
1854-0352	01921	2N2405	1854-0670	01698	TIP110	1854-0861	02062	QXTR-6999	1854-1043	02037	2N5179 (SEL)
1854-0357	02037	SD2608 (SELECTED)	1854-0671	02037	2N6282	1854-0862	02062	HXTR-5002	1854-1044	00039	NE21935
1854-0361	02037	2N4239	1854-0679	02037	2N5885	1854-0863	02062	HXTR-2101	1854-1045	03334	BFR92 (SELECTED)
1854-0363	01921	2N5262	1854-0682	02037	MJE5191	1854-0864	02062	HXTR-6105	1854-1046	07050	MP312-78-69
1854-0365	02037	2N4410	1854-0687	01698	2N3725A	1854-0866	02037	MPS834	1854-1047	02037	MRF587
1854-0368	02037	2N5191	1854-0690	06632	ST3011	1854-0868	06592	BFR 36	1854-1048	02037	2N3904RLRA2
1854-0370	01921	2N5294	1854-0691	02037	MFS A18	1854-0869	03287	GX55220A	1854-1049	02037	BFR96
1854-0378	01921	2N5109	1854-0692	02037	MJE223	1854-0871	01921	2N6678	1854-1050	03334	BFR91A
1854-0382	01921	2N4348	1854-0697	02037	2N5886	1854-0872	04550	D44H11	1854-1051	02037	2N3772 (SEL)
1854-0383	01921	40313	1854-0698	02037	2N6294	1854-0873	03799	X44VH570	1854-1052	02037	MMBT5550
1854-0386	01921	2N5070	1854-0700	01698	TIP140	1854-0877	02037	MPS-U07	1854-1053	02037	MMBT2222A
1854-0388	02237	SE5055	1854-0701	02037	MJE2100	1854-0878	02062	HXTR-5104	1854-1054	03334	BFG19
1854-0389	02037	2N4922	1854-0705	10674	DTS-802	1854-0879	02037	MJE6043	1854-1055	03334	BFR93
1854-0392	02037	2N5088	1854-0707	02037	MJ4035	1854-0880	02037	TIP140	1854-1056	02037	MJ44000
1854-0397	01698	2N4966	1854-0708	01921	2N5578	1854-0881	11981	2N6290	1854-1060	02037	MJ33091
1854-0398	02037	2N5301	1854-0712	02180	MAT-01GH	1854-0883	02037	MM3904	1854-1061	02037	2N3904
1854-0399	02037	2N4912	1854-0715	01921	2N6354	1854-0884	01921	2N6488	1854-1062	02037	2N5681
1854-0409	02037	2N5210	1854-0716	11021	BFR90	1854-0886	02037	MJE3302	1854-1063	02037	BFR90
1854-0411	02037	2N2972	1854-0721	03334	BFR95	1854-0887	02037	MJ11016	1854-1064	02037	MPSW01
1854-0418	02237	2N3563	1854-0723	03334	BFX89	1854-0889	02037	2N6499	1854-1066	00039	NET7416D
1854-0431	01921	2N5179	1854-0727	01921	2N6474	1854-0890	02037	MRF904	1854-1067	03291	AT-4435-5
1854-0432	02237	2N3646	1854-0730	02037	MPS6531	1854-0891	06023	BUX82	1854-1069	02037	TIP50
1854-0435	03334	A211	1854-0733	01921	2N3773	1854-0906	02037	MJ12010	1854-1071	02037	MJ16018
1854-0453	02037	2N5192	1854-0735	02037	MJE220	1854-0917	01921	2N6292	1854-1083	02037	MMBR5179
1854-0456	01698	TIP41A	1854-0736	02037	MJE5657	1854-0920	02037	MJE15030	1854-1084	02037	2N3904
1854-0467	02037	2N4401	1854-0737	01921	2N6477	1854-0929	02037	MMBT918	1854-1085	01921	2N5239
1854-0472	02037	MFS-A14	1854-0738	01921	2N6261	1854-0940	06344	2SC2429 (SEL)	1854-1086	02037	D40D4
1854-0474	02037	2N5551	1854-0739	02037	MJE200	1854-0941	02037	MJ12003	1854-1089	00039	NEB5633
1854-0476	01921	2N3879	1854-0741	02037	2N6338	1854-0942	03334	BFG34	1854-1091	00039	NEO2133L
1854-0477	02682	2N2222A	1854-0743	02037	2N5878	1854-0944	02062	HXTR-3101	1854-1092	02037	MRF962
1854-0478	02237	2N4046	1854-0746	02037	2N3339	1854-0946	00039	NEO2135	1854-1093	02062	HXTR-3102
1854-0492	02037	MPS3643	1854-0747	05176	HP-4	1854-0948	02037	MJ10006	1854-1094	02037	MXT2222A
1854-0514	02037	MFS-U02	1854-0748	02037	2N2896	1854-0957	03714	ITL20A-T071	1854-1095	02037	MMBT2369
1854-0518	02037	2N5877	1854-0749	02037	MJE2361-T	1854-0960	01698	TIPL753A	1854-1100	02037	MXR5943
1854-0519	01921	2N3772	1854-0751	02237	2N5840	1854-0964	02037	MJ12004	1854-1101	02037	MXR3904
1854-0527	02037	2N2895	1854-0752	02037	MMCS2369	1854-0965	02037	MJ505	1854-1102	02037	MMBT24
1854-0529	11699	CEN672	1854-0753	07050	MP318-52-62	1854-0967	02037	TIP41C (SELECTED)	1854-1107	02037	MRF965
1854-0540	02037	MM8006	1854-0754	02037	MJE244	1854-0968	02037	SJ7076	1854-1108	02037	MMBR901
1854-0547	01698	2N3725	1854-0755	01921	2N6254	1854-0969	02037	MJ12005	1854-1109	02180	MAT-02FH
1854-0548	02237	2N5963	1854-0756	02037	2N6315	1854-0970	01698	TIP102	1854-1110	03406	2N3904
1854-0556	02037	2N4237	1854-0758	02037	2N5427	1854-0971	02062	2N6741	1854-1111	00039	NEB6135
1854-0557	01698	2N2432A	1854-0761	02037	2N2060	1854-0972	02037	BFR90	1854-1112	00039	2SC718
1854-0560	02037	MPS A12	1854-0762	01921	2N5039	1854-0973	02037	MPS8098	1854-1113	00039	2SC2987A
1854-0566	01921	2N3771	1854-0763	01698	TIP 141	1854-0977	02037	MPS-A14	1854-1114	02037	MRF544
1854-0570	01921	2N5189	1854-0764	02037	MPS U-10	1854-0978	04550	GES3416	1854-1115	00039	2SC2690
1854-0575	02037	MFS-A42	1854-0765	01921	2N6292	1854-0979	02037	MPS2369	1854-1117	06354	2SC3281
1854-0576	01921	2N6258	1854-0766	02037	2N5428	1854-0980	02037	MFR961	1854-1118	00039	2SC2987
1854-0577	01921	2N6259	1854-0767	01921	2N6306	1854-0981	02037	MPS5179	1854-1119	00039	2SC2275
1854-0580	02037	MM8001	1854-0768	02037	MJE1661	1854-0982	01698	TIP642	1854-1120	03334	A400 (SEL)
1854-0581	02037	MJE800	1854-0769	02062	35821E	1854-0983	02037	MJ12005 (SELECTED)	1854-1121	02037	BD435
1854-0583	02037	MFS-A18	1854-0770	02037	2N3904 CHIP	1854-0984	02037	MJ16002 (SELECTED)	1854-1122	02037	2N6837
1854-0585	02037	MJE182	1854-0771	03406	2N4384 CHIP	1854-0985	02037	TIP142	1854-1123	02062	HXTR-5102
1854-0586	02037	2N5429	1854-0774	01921	2N6056	1854-0986	10881	BFR92	1854-1124	01921	2N3771
1854-0587	02037	MMT3960A	1854-0780	03334	BUS-12A	1854-0987	10881	BCX20	1854-1125	02037	MRF5711L
1854-0589	02037	MJ3772	1854-0784	02037	2N3866A	1854-0988	02037	2N3737	1854-1126	02037	2N4401
1854-0590	01921	2N3054	1854-0785	02037	2N6305	1854-0989	02037	MJ15003	1854-1127	02037	MJE521K
1854-0591	03334	BFR90	1854-0786	02037	2N5405	1854-0990	02037	MRF630	1854-1128	02037	TIP122
1854-0593	01698	TIP-35A	1854-0787	02037	2N6545	1854-0991	00746	25D786	1854-1129	02037	2N5836
1854-0594	01698	TIP-33	1854-0792	02237	2N2920	1854-0992	03714	ITS1015 (SEL)	1854-1132	03334	2SC1623
1854-0596	02037	2N5428	1854-0794	02037	MJE243	1854-0993	02037	MPSH10	1854-1133	02037	2N6259
1854-0597	02037	2N5943	1854-0795	02037	MPSH10	1854-0994	02037	2N5179 (SEL)	1854-1134	02037	MJEL3005
1854-0600	02037	2N4233A	1854-0798	02037	MPS-U45	1854-0996	02037	MJEL3003	1854-1136	00746	25D786
1854-0611	02037	2N6055	1854-0799	02037	TIP41C	1854-0997	02037	MPSW06	1854-1137	02037	MMBT5088T1
1854-0613	01921	2N1701	1854-0802	02037	MM5262	1854-0998	04550	D42C11N	1854-1138	02037	MMBT4124T1
1854-0617	01921	40852	1854-0803	01698	TIP75B	1854-0999	01921	2N5320	1854-1139	02037	MPSH10
1854-0618	02037	MJ3000	1854-0804	03038	IR5062	1854-1002	00039	NE64535	1854-1140	02037	MPS6543
1854-0619	03285	AD814	1854-0805	02037	BD139	1854-1003	06354	2SC2876	1854-1141	02037	MPS3646
1854-0621	01698	BFR258	1854-0806	01698	TIP51	1854-1004	02037	BD415	1854-1142	02037	MPS571
1854-0623	02037	2N6306	1854-0808	02037	MJE241	1854-1005	02037	BU508A	1854-1143	02037	MRF580A
1854-0624	02037	2N6308	1854-0809	02037	2N2369A	1854-1006	02037	BU406	1854-1144	03291	AT-41400
1854-0625	01698	TIP-41	1854-0810	04200	CT-1058	1854-1007	02037	2N5943 (SEL)	1854-1145	02037	2N6340
1854-0626	02037	MJE802	1854-0813	02037	2N3501 (SEL)	1854-1008	00039	NE-41635	1854-1147	03171	2N3441
1854-0628	02037	MFS-H17	1854-0817	02037	MPS-U05	1854-1009	00039	NE21935	1854-1148	02037	MMBT10
1854-0632	03334	BFR91	1854-0819	02037	MJE2801T	1854-1010	02037	MD918A	1854-1149	02037	MRF870
1854-0633	02037	MJE800	1854-0825	02062	HXTR-5002	1854-1014	02037	MMBT6429	1854-1150	02037	BCW56C
1854-0634	02037	MFS-U01	1854-0826	03406	LM-394BH	1854-1015	02037	MJ16012	1854-1157	02037	BU426
1854-0635	04550	D44H5	18								

Transistor/Diode Cross Reference – HP P/N to JEDEC No.

HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.
1854-1170	00039	NEL2301-53	1855-0272	02037	MFE3004	1855-0527	02037	MIM2P50	1855-0675	02037	MPF6660
1854-1172	02037	MJD47	1855-0274	02883	E232	1855-0529	03406	PF5101 (SELECTED)	1855-0676	01921	RFP10N15
1854-1173	02037	MJD44H11	1855-0275	02883	VN66AFD	1855-0530	02883	U310	1855-0677	01921	RFP12N08
1854-1175	02037	MRF586	1855-0276	02037	2N4416A	1855-0531	03038	IRF120	1855-0678	01921	RFP2N08L
1854-1177	02037	2N3904 (SEL)	1855-0277	02037	2N5268	1855-0534	01921	40673	1855-0679	03334	BUR456-800A
1854-1178	02037	MRF911	1855-0278	03714	2N5116	1855-0535	03714	IT1750	1855-0680	02037	MMBF4391
1854-1179	02037	MPSA18LRA1	1855-0279	03714	3N190	1855-0536	03038	IRF440	1855-0681	02037	MMBFU310
1854-1180	04200	2N3417	1855-0280	02883	E107	1855-0539	06121	BUZ24	1855-0682	03038	IRFP450
1854-1181	02180	MAT-02EH	1855-0281	02763	2N5396	1855-0540	03406	2N5115 (SEL)	1855-0683	03038	IRFZ22
1854-1182	03334	BUS12	1855-0285	01698	2N5246	1855-0542	02037	MTP12N06	1855-0684	02883	VN0610L
1854-1183	03334	BUS11A	1855-0286	02883	2N3966	1855-0545	02883	VN10KE	1855-0686	02883	VP0300L (SEL)
1854-1184	02037	MRF581 (MOD)	1855-0288	02883	2N5556	1855-0546	07221	VN0104N3	1855-0687	02037	SFF938
1854-1186	02037	2N4264	1855-0289	02883	J177	1855-0548	06121	BUZ71A	1855-0688	02037	2N5245
1854-1187	00746	ZSD1378	1855-0292	03406	2N5432	1855-0549	03038	IRF515	1855-0689	02037	2N5461
1854-1188	03406	MMBT4401	1855-0293	02883	2N6658	1855-0550	02883	VP0300L (SEL)	1855-0690	02037	2N5245 (SEL)
1854-1189	02062	QXTR-7037	1855-0297	03406	2N2608	1855-0551	03038	IRFD420	1855-0691	04550	IRFP250
1854-1190	02037	MJD112	1855-0298	02883	J2472	1855-0553	06121	BUZ10	1855-0693	03406	F54011A
1854-1196	01590	SL360G	1855-0301	02883	2N5198	1855-0554	03406	J304 (SEL)	1855-0694	03038	IRFZ40
1854-1199	03406	LM394BN	1855-0305	02883	2N4117A	1855-0555	02883	VN0300L	1855-0695	02037	MMBF4393 (SEL)
1854-1200	02037	MMBT406	1855-0306	01921	3N128	1855-0556	02883	VN2222L	1855-0696	02037	BS170
1854-1201	02037	MMBR5031	1855-0309	02037	2N4352	1855-0557	09283	SD306 (SEL)	1855-0697	02037	MTM6N06
1854-1202	02037	MPSA27	1855-0314	04550	2N6027	1855-0560	02883	VN10LE	1855-0705	02037	MTM3N35
1854-1203	03334	BST39	1855-0322	03334	2N5105	1855-0561	03038	IRF510	1855-0708	01921	RFP4N06L
1854-1204	02037	MJE5740	1855-0323	03714	3N172	1855-0562	03038	IRF250	1855-0709	02883	IRFD120
1854-1206	03334	BSR43	1855-0327	01698	2N4416	1855-0563	02037	MTP12N20	1855-0711	01308	IRFD9210
1854-1207	02037	2N5088	1855-0332	01921	3N138	1855-0565	01921	RFP10N12	1855-0712	03038	IRFD10
1854-1208	03334	BCX56BH	1855-0341	02883	2N4338	1855-0567	03038	IRFD9123	1855-0714	03799	HMF-0620
1854-1209	03291	AT-60586	1855-0346	04550	2N6028	1855-0568	06121	BUZ71A	1855-0715	02037	MMBF4393
1854-1215	02037	MJD122	1855-0371	02037	2N4092	1855-0568	00039	NE71000	1855-0719	03799	HMF-0310-100
1854-1217	06121	BFR93A	1855-0379	02037	2N5474	1855-0570	00039	2SK523	1855-0720	03291	AT-8160
1854-1218	03334	PXT4401	1855-0380	02037	2N4351	1855-0571	00039	2SK533	1855-0721	02037	2N5266
1854-1219	02037	MJH16010A	1855-0386	02037	2N4392	1855-0572	03038	IRF523	1855-0722	02883	VP1008B
1854-1221	02037	MRF0211	1855-0387	02037	2N3993	1855-0573	02883	U440	1855-0723	02883	SD214DE
1854-1222	02037	MJH16012	1855-0390	03714	2N3382	1855-0574	02883	J175	1855-0724	02883	VN66AD
1854-1223	02037	MJE8501	1855-0393	01698	2N3330	1855-0575	02883	2N6660	1855-0725	02037	MTP3055E
1854-1225	02037	MRF581A	1855-0395	02883	FN2645	1855-0580	02883	IRFF123	1855-0726	03038	IRF9220
1854-1226	02037	MRF9411	1855-0396	03714	3N190	1855-0581	03038	IRF521	1855-0727	02037	2N7000
1854-1227	02037	MPS2222	1855-0398	02883	2N5519	1855-0582	02883	VN0300M	1855-0729	02883	IRFD125
1854-1228	02037	MRF839	1855-0400	02883	2N5905	1855-0582	02883	VQ1001P	1855-0731	03406	MMBF175
1854-1231	02037	MMBR920	1855-0402	02883	2N5115	1855-0586	03038	IRF523	1855-0732	03038	IRFR110
1854-1232	02037	2N3904-STYLE D	1855-0406	03714	IT110	1855-0587	03038	IRF9521	1855-0733	02883	SST177
1854-1233	02037	TIP35C	1855-0413	03406	2N5116	1855-0588	03038	IRF9513	1855-0734	02883	2N7002
1854-1234	03334	BFQ65	1855-0414	02883	2N4393	1855-0589	03038	IRF513	1855-0735	03038	IRCS30
1854-1236	02037	MJD44H11-1	1855-0420	02883	2N4391	1855-0590	02037	IRF540 (SEL)	1855-0739	02883	M5911
1854-1237	03406	D40M1	1855-0421	02883	2N5114	1855-0591	02883	VQ1000J	1855-0744	05946	BST82
1854-1238	02062	HXTR-3001	1855-0423	02883	VN10KM	1855-0592	03038	IRF533	1855-0746	03406	MMBF176
1854-1243	03334	BFR93R	1855-0424	03406	J108	1855-0593	02037	MIM12N06	1855-0747	02037	SFF819-2
1854-1245	02037	2N2221A	1855-0425	03406	J304	1855-0594	02037	MPF960	1855-0748	03038	IRFR9020
1854-1246	02037	MMBR571	1855-0427	02883	M100	1855-0595	01921	RFL1N08L	1855-0749	03038	IRFR210
1854-1247	03334	BFR92R	1855-0430	03714	2N3685	1855-0598	02883	VN2222LL	1855-0750	06121	BSS123
1854-1248	02037	MMBT5551L	1855-0431	03714	IVN5001ANF	1855-0606	02037	MTP5N40	1855-0751	02883	VN0808M
1854-1251	02180	SSM-2210S	1855-0432	02883	3N163	1855-0607	02037	MTP4N50	1855-0752	03406	MMBF4392
1854-1252	02037	MFS3866	1855-0434	03714	IT500	1855-0608	02037	MTP3N60	1855-0753	03406	MMBF5459
1854-1253	02037	MRF5943	1855-0436	03406	U1897E	1855-0614	02883	2N6659	1855-0754	02037	MFE930
1854-1254	03334	BUS05	1855-0437	03406	J270	1855-0617	01921	RFP8P08	1855-0755	03038	IRFP140
1854-1255	02037	MM3007	1855-0440	09283	SD2106	1855-0618	02037	IRF140	1855-0756	03038	IRFP9140
1855-0001	01973	2N1671A	1855-0442	01973	ITS4066	1855-0619	01921	RFL1N08L	1855-0758	03038	IRFR9120
1855-0005	02763	2N3436	1855-0445	02883	J107	1855-0620	02883	VQ1006P	1855-0759	03038	IRFR120
1855-0010	04550	2N2646	1855-0446	02883	J112	1855-0621	01921	RFP6P08	1855-0760	07221	VN1204N2
1855-0020	02037	SFE793	1855-0454	03038	IRF431	1855-0622	03038	IRF521	1855-0761	06121	BSS87
1855-0021	01973	2N1671B	1855-0461	03038	IRF520	1855-0623	01921	RFP5P12	1855-0763	02037	MTP12P05
1855-0027	04550	2N2647	1855-0463	03406	2N4119A	1855-0625	03714	IT110	1855-0764	02037	MMBFJ310T1
1855-0038	02763	2N3922	1855-0478	02037	MIM15N50	1855-0629	01921	RFP15N05L	1855-0766	06121	BUZ90
1855-0052	02237	2N4360	1855-0480	02037	MMBF4416L	1855-0630	02883	2N4391	1855-0767	02037	MTH8N60
1855-0053	03406	NS1D5292SF52064	1855-0484	03038	IRF9130	1855-0631	03038	IRF740	1855-0768	06121	BSS84
1855-0056	02237	2N4342	1855-0488	03038	IRF610	1855-0632	02037	2N4860	1855-0769	00039	NET2084
1855-0065	01698	2N4891	1855-0489	03714	IVN5201TNF	1855-0635	02883	U401	1855-0770	00039	NET1084-08
1855-0071	02569	2N5544	1855-0490	02037	MIM10N10	1855-0636	00039	NET1084-06	1855-0773	03038	IRFR010
1855-0077	01973	2N1671C	1855-0492	03038	IRF530	1855-0637	00039	NE800199	1855-0774	03038	IRFR9210
1855-0096	02037	2N5485 (SEL)	1855-0493	03038	IRF9530	1855-0639	02883	U443	1855-0775	03038	IRF045
1855-0098	03714	IT1700	1855-0494	03038	IRF130	1855-0640	03334	BFT46	1855-0776	02037	MTD5N05-1
1855-0099	02037	2N4853	1855-0495	02037	MIM10N15	1855-0641	03038	IRF612	1855-0777	03038	IRFBE20
1855-0205	02883	VCR3P	1855-0497	02037	MTP2N90	1855-0645	03334	BUZ11	1855-0778	02037	MTD4P05-1
1855-0206	02883	E111	1855-0498	03406	2N5397	1855-0646	03038	IRFF131	1855-0779	06121	BSS88
1855-0207	03406	2N3955	1855-0499	03038	IRF9531	1855-0647	02883	SD210DE	1855-0781	03038	IRFBE20-003
1855-0208	02883	2N4117	1855-0500	03038	IRFD9120	1855-0649	07221	VP1204N2	1855-0782	02037	MTD1GN05E-1
1855-0213	03406	2N5912	1855-0502	03038	IRFD110	1855-0650	02883	VQ2001P	1855-0783	02037	MTP10N15L
1855-0215	09283	SD211DE (SELECTED)	1855-0504	03038	IRF630	1855-0651	02037	MFQ960C	1855-0784	02037	MTD4P06-1
1855-0224	01698	2N3824	1855-0507	03285	2N5912	1855-0653	02883	2N4391 (CHIP)	1855-0785	02883	SST5461
1855-0232	02883	2N5565	1855-0508	03038	IRF150	1855-0659	02883	DN2094	1855-0786	03038	IRFBC42-003
1855-0235	02037	U310 (SELECTED)	1855-0509	03038	IRF9520	1855-0660	02037	MTP15N05E	1855-0787	02037	MTH13N50
1855-0241	02910	SD215	1855-0510	03038	IRF830	1855-0661	03714	2N5911/D	1855-0788	02883	U431
1855-0244	03406	2N4857	1855-0512	01921	RCA9212A	1855-0663	10743	1GG2-4032	1855-0789	02037	2N3994
1855-0250	01698	3N215	1855-0515	07050	MP833-1004	1855-0664	02037	MTP1N100	1855-0792	03038	IRFP150
1855-0251	02037	2N6659	1855-0517	03038	IRF9532	1855-0665	01921	RFP2N12L	1855-0793	02883	J2976 TR-6

Transistor/Diode Cross Reference – HP P/N to JEDEC No.

HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.	HP P/N	Mfr.	Desc.
1855-0806	00039	2SK680-T1	1858-0125	00039	UPA104G	1900-0216	02062	HSMS2824	1901-0411	02037	MR1033A
1855-0807	03334	BF511	1858-0126	00039	UPA102G	1900-0217	02062	HSMS-2822	1901-0412	02037	1N4722
1855-0808	03291	ATF-20135	1858-0127	04200	TPQA56	1900-0220	02062	HSMS-2813	1901-0413	02037	MR1035A
1855-0810	03038	IRFR9010	1858-0128	04200	TPQA551	1900-0221	02062	HSMS-2818-#8	1901-0414	02037	1N4723
1855-0811	03038	IRFR020	1858-0129	02037	MMPQ6001	1900-0223	08852	M2X1282	1901-0421	02037	1N3208
1855-0812	03038	IRF9Z30	1858-0130	02883	VQ3001J	1900-0224	02062	HSMS-2823	1901-0423	02037	1N3212
1855-0814	02037	MTM2N50	1858-0131	02037	MC3346D	1900-0226	08852	M4X1055	1901-0424	02037	1N3492
1855-0815	03038	IRLZ34	1858-0133	04550	CA3227E	1900-0227	08852	MSS50-2448-B20	1901-0426	02037	1N3494
1855-0818	02037	MTP20P06	1858-0135	04550	CA3127M	1900-0228	02062	5082-3141	1901-0431	02037	1N3662
1855-0821	03799	RFP2N08L-6261	1858-0136	00039	UPA103G	1900-0231	02062	5082-2279	1901-0432	02062	QSRD-4652
1855-0822	03038	CPY203E	1858-0138	02180	MAT04EY	1900-0232	08852	M2X1527	1901-0460	01973	STB253-A
1855-0823	02883	SST5912	1858-0139	02037	MMPQ6700	1900-0233	04078	1N5711	1901-0461	00046	1N4148
1855-0825	02883	SST215	1858-0140	04550	CA3246E	1900-0234	08852	M2X1569	1901-0463	01973	1N4156
1855-0828	02037	MMPQ5460L	1858-0142	04550	CA3083E	1900-0235	02062	QSC-5362	1901-0478	01973	1N3958
1855-0829	02037	2N4392	1858-0143	02037	MMPQ2369	1900-0236	08852	M2X1577	1901-0490	02713	GI250-3
1855-0831	02037	MTP3055EL	1858-0144	03799	CA3227E	1900-0239	02062	HSMS-2814 #T31	1901-0492	02037	1N5002
1855-0832	03038	IRFD9020	1858-0145	03406	LM3146M	1900-0240	02062	HSMS-0003	1901-0493	02037	1N4725
1855-0833	03038	IRFP40	1858-0146	03799	CA3246E	1900-0241	08852	M2X1625	1901-0494	02037	1N5003
1855-0833	03038	MTD10N05E	1858-0147	04200	ULN2003L	1900-0245	02062	HSMS-2805	1901-0495	02037	MR1120
1858-1260	02037	CA3049	1900-0001	02788	1N21B	1900-0246	02865	CSB7002-05-150-801	1901-0496	02037	MR1121
1858-0008	02037	SPQ526K	1900-0004	02865	1N76	1900-0247	08852	MSX1365	1901-0497	02037	MR1122
1858-0009	02037	MHQ2221	1900-0006	02788	1N416B	1900-0249	02062	HPND-4028	1901-0498	02037	MR1123
1858-0010	02037	MPQ2906	1900-0007	02788	1N26SF	1900-0250	02037	MMD201	1901-0499	02037	MR1124
1858-0021	01921	CA3083	1900-0010	01250	1N21BMR	1900-0251	02062	HSCH-9101	1901-0500	02037	MR1125
1858-0022	03793	SG3821N	1900-0011	02788	1N416BM	1901-0001	03171	HI3-0302-5	1901-0511	06563	1N3889R
1858-0023	01921	CA3081E	1900-0012	01250	1N23B	1901-0002	01921	1N1200A	1901-0517	02062	5082-5414
1858-0032	01921	CA3146E	1900-0015	02788	1N415C	1901-0004	03038	1N1084	1901-0518	02062	5082-5509
1858-0034	02037	MPQ3725	1900-0016	02865	1N4603	1901-0010	04550	1N540	1901-0519	00046	1N3070
1858-0036	03285	AD821 (SPEC)	1900-0017	02865	1N21E	1901-0013	01991	1N253	1901-0525	04504	KBPC25005P-11
1858-0037	04200	ULN2082A	1900-0018	02788	1N23C	1901-0019	02086	1N1344	1901-0526	02664	SCAJ1
1858-0040	01921	CA3127E	1900-0019	02788	1N831	1901-0022	03334	BA220	1901-0531	01973	A2S097
1858-0045	03406	LM3018AH	1900-0020	01250	1N76A	1901-0025	00046	1N645	1901-0532	04507	Al4P
1858-0046	01921	CA3097E	1900-0025	02062	5082-0049	1901-0032	02037	1N3209	1901-0536	02688	DI561CE
1858-0047	04200	ULN-2003A	1900-0030	02865	DME6569	1901-0033	00046	1N645	1901-0537	00046	1N645
1858-0048	01921	CA3082E	1900-0031	02865	DMJ4705 SELECTED	1901-0038	02237	1N3064	1901-0538	02037	MSD6150
1858-0052	02037	SPQ1678	1900-0032	02865	DSG 6474-44	1901-0039	04486	1N4150	1901-0545	02062	5082-2805
1858-0055	02037	MPQ2369	1900-0034	04507	A4X665	1901-0040	00046	1N4148	1901-0551	02037	MR1126
1858-0057	01921	CA3082F	1900-0035	02062	HSCH-5510	1901-0041	00046	1N4607	1901-0552	02037	MR1128
1858-0058	02037	MPQ3906	1900-0036	04507	A5S092 SELECTED	1901-0044	00046	1N4148	1901-0557	01921	CA3019
1858-0061	04200	ULN-2004A	1900-0037	02037	MMD101L	1901-0048	02037	1N3210	1901-0591	05131	ED6240
1858-0062	02037	MPQ3762	1900-0039	02037	MMD352	1901-0050	00046	1N4150	1901-0592	02037	MR1121R
1858-0063	01921	CA3102E	1900-0040	02788	MA-4E402L	1901-0053	00046	1N5395	1901-0620	00046	1N4607
1858-0064	01921	CA3045H	1900-0041	02788	MA-40035	1901-0057	02037	1N2525	1901-0630	02037	MR1123R
1858-0065	04200	ULN-2815A-2	1900-0042	04507	A5X1046	1901-0058	01991	1N628	1901-0638	02037	MDA970A2
1858-0066	03714	IH401A	1900-0043	04507	A2X2118	1901-0060	02037	1N1116	1901-0639	02062	5082-3080
1858-0067	04200	ULN-2033A	1900-0045	02788	MA4P485	1901-0071	02763	1N625	1901-0646	02664	SZF
1858-0069	04200	ULN-2803A	1900-0046	02865	CLA3132-86	1901-0081	00046	1N4148	1901-0655	02688	D583CG
1858-0071	02037	MPQ3798	1900-0047	05695	MA-4P203-287	1901-0096	02237	FDH-400	1901-0660	02688	D471AR
1858-0072	04200	ULN-2813A	1900-0048	08852	MX1735	1901-0126	01921	1N1763	1901-0661	02037	MBS5550A
1858-0073	04200	ULN-2805A	1900-0050	08852	MMD830-E20	1901-0129	01698	1N647	1901-0662	02037	MR751
1858-0074	02037	MPQ6100	1900-0053	02865	DDC4565D	1901-0131	04550	1N1764	1901-0663	02619	NS3000
1858-0075	02037	MPQ3546	1900-0054	08852	MSS-40,155-E20	1901-0132	01698	1N660	1901-0669	02664	S4F
1858-0076	02037	MPQ2907P	1900-0056	02865	DDC4582D	1901-0138	01991	1N1581	1901-0671	02037	1N3900
1858-0077	02037	MPQ2222P	1900-0057	02062	5082-0001 SELECTED	1901-0144	03447	1N662	1901-0672	02037	1N3890
1858-0081	03811	C7254	1900-0059	02865	DMJ4768	1901-0151	05131	1N2242	1901-0673	01973	Al5A
1858-0082	04200	ULN-2804A	1900-0060	02062	5082-0009	1901-0164	02037	1N4721	1901-0674	02664	3SF1
1858-0083	04200	TPQ6002	1900-0061	02865	DMF5835A	1901-0169	02062	5082-0007	1901-0678	02037	1N3899R
1858-0084	04200	ULN-2804A	1900-0062	02865	DME6553	1901-0179	02237	FD777	1901-0684	02037	1N3890R
1858-0085	04200	UDN2580A	1900-0065	02062	HSCH-6332	1901-0189	02062	QSRD-4653	1901-0685	02037	MR822RL
1858-0086	02037	MPQ6700	1900-0066	02062	5082-0030	1901-0305	01973	1N2158	1901-0686	02688	D505AC
1858-0087	02037	MPQ3904	1900-0068	02865	CSB7201-01	1901-0306	01973	1N2158R	1901-0690	01973	Al14A
1858-0088	02037	MPQ7091	1900-0069	02062	5082-2826 SELECTED	1901-0307	01973	1N3289	1901-0691	01973	Al15A
1858-0089	02037	MC1411	1900-0070	02062	HSCH-5512	1901-0308	01973	1N3289R	1901-0692	02037	MR852
1858-0090	02037	MPQ6002	1900-0071	02062	HSCH-5312	1901-0309	01973	1N1347A	1901-0693	02037	1N4934
1858-0091	02037	MPQ2484	1900-0072	02062	HSMS2820	1901-0310	01973	1N250C	1901-0696	04550	Al14D
1858-0092	02037	MPQ3799	1900-0074	02062	HSMS2810	1901-0311	01973	1N3260R	1901-0699	02664	3L05
1858-0094	02037	MHQ918	1900-0075	08852	MSS-30,254-B20	1901-0312	01973	1N3262	1901-0701	00046	STB567
1858-0095	00046	PIQ900C	1900-0076	02062	HSCH-5336 (SELECTED)	1901-0313	01973	1N3262R	1901-0703	04486	ITTE600
1858-0096	01921	CA3183E	1900-0077	02062	QSC-5872	1901-0314	01921	1N1206A	1901-0704	02086	1N4002
1858-0097	04200	ULN-2023A	1900-0078	02062	HSMS-2800	1901-0315	06121	1N183A	1901-0710	01698	1N914
1858-0099	04200	ULN-2003A (SEL)	1900-0079	02062	5082-2830	1901-0316	02086	1N183AR	1901-0717	02037	1N3891
1858-0100	02037	MPQ2369	1900-0080	08852	MMD830-E20 SELECTED	1901-0317	02086	1N184A	1901-0719	02037	MR854
1858-0101	01590	SL2364C	1900-0082	08852	MX-2844	1901-0318	02086	1N184AR	1901-0726	02037	1N5823
1858-0102	02037	MPQ6426	1900-0083	02062	5082-2831	1901-0319	02086	1N186AR	1901-0729	02688	R3710
1858-0104	02910	ULN2003D	1900-0084	08852	MX-2860	1901-0320	02086	1N187A	1901-0730	02688	S3710
1858-0105	07221	VN0106NG	1900-0085	08852	MSS40,141-B10 SELECTED	1901-0321	02086	1N187AR	1901-0731	04486	1N4004G
1858-0106	02037	MPQ7051	1900-0087	02062	5082-2831	1901-0325	02688	R3270	1901-0732	02237	1N4007
1858-0107	02037	MPQ7041	1900-0088	02062	5082-2794	1901-0327	01973	Al4B	1901-0734	02037	1N5818
1858-0108	04200	ULQ2804A	1900-0089	02062	5082-2800 SELECTED	1901-0328	01973	Al4D	1901-0738	02158	50L200
1858-0109	12010	FTS755M	1900-0091	02062	HSMS-2812	1901-0329	04550	Al4M	1901-0739	02158	G6R110H
1858-0110	02180	MAT04FP	1900-0092	04507	A2S832	1901-0330	01973	Al4N	1901-0742	01921	1N3563
1858-0111	02037	MPQ3799-2	1900-0093	02062	5082-0001	1901-0343	02037	1N3491R	1901-0743	01698	1N4004
1858-0112	02037	MMPQ2222A	1900-0095	08852	MX3141	1901-0346	02037	1N3209R	1901-0747	02062	5082-5232
1858-0113	02037	MMPQ2907A	1900-0096	020							

Transistor/Diode Cross Reference – HP P/N to JEDEC No.

HP P/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.
1901-0768	05088	H617	1901-1015	01698	1N4531	1901-1200	02237	1N4448	1901-1326	05027	FP1047A
1901-0774	02037	1N3891R	1901-1034	01973	MPD400	1901-1203	02037	1N4003	1901-1327	02037	P6KE18A
1901-0775	02037	1N5000	1901-1035	02037	MR881R	1901-1204	02037	MBR1030-T1	1901-1328	02037	SA15A
1901-0776	02062	QPND-4711	1901-1052	04550	1N4154	1901-1205	03287	1.5KE39	1901-1329	02158	10L200
1901-0777	02062	QPND-4965	1901-1065	02713	1N4936	1901-1206	03287	1.5KE39C	1901-1330	02037	1N6291AC
1901-0781	02037	MR754	1901-1067	02237	FDH444	1901-1207	03287	1.5KE120C	1901-1331	02037	1N6280AC
1901-0782	02037	1N5821	1901-1068	02062	5082-5541	1901-1208	03287	MFTB-15	1901-1332	02037	MHR5140T3
1901-0786	02664	1N6074	1901-1078	02037	MED5300	1901-1209	03287	MFTB-15C	1901-1333	02037	1N3911
1901-0787	02037	MR756	1901-1080	02037	1N5817 (RELAXED)	1901-1210	03287	LCBT.0	1901-1334	03287	SMCJ15A
1901-0788	02037	MR752	1901-1081	02037	MR501	1901-1211	03287	5KP5.0A	1901-1335	02037	MUR5140T3
1901-0789	02037	MR850	1901-1085	02062	5082-2835	1901-1212	03287	MED501	1901-1336	03038	11D410
1901-0790	00046	1N5418	1901-1086	02037	MR820	1901-1213	02037	MUR160	1901-1337	03287	SA5.0A
1901-0791	02037	1N3889	1901-1087	02037	MR856	1901-1215	12928	VHE550	1901-1338	03287	SAL2
1901-0792	02688	SD41	1901-1091	04550	A1154	1901-1216	02037	MUR415	1901-1339	03287	SMCJ12.0
1901-0802	02062	QSRD-4728	1901-1092	04550	A1144	1901-1218	00046	USD840	1901-1340	03406	1N914B
1901-0824	02037	MR2004SR	1901-1095	02037	MBR1540	1901-1220	05088	VSK300	1901-1341	03287	SMBJ22A
1901-0825	02037	MR2004S	1901-1097	02062	5082-5580	1901-1223	03334	BYV36C	1901-1343	02037	MMBD501
1901-0826	02062	QPND-4746	1901-1098	02763	1N4150	1901-1224	03334	BAV74 SELECTED	1901-1344	03334	BAS45
1901-0831	02037	1N4937	1901-1100	01691	SD-41	1901-1227	02237	BAS16	1901-1345	06121	BAW78B
1901-0833	01691	1N6096	1901-1101	02237	JANTXV 1N4148-1	1901-1228	02037	MMBD914XT1	1901-1346	03287	SMCJ43CA
1901-0834	02037	1N5827	1901-1102	02062	HSCB-5316	1901-1230	03334	BYV26C SELECTED	1902-0003	02037	1N754
1901-0841	01698	BY205-400	1901-1103	02664	1N5623	1901-1232	02062	5082-1006	1902-0018	02037	1N941
1901-0837	01698	BY 205-100	1901-1105	05088	VB10X	1901-1233	02037	MUR4100	1902-0021	02037	1N2992RB
1901-0838	01921	1N5393	1901-1106	09914	UES-1106	1901-1237	02713	RG15-15	1902-0028	02037	1N2999A
1901-0839	02037	MR510	1901-1107	04507	AZX1501	1901-1239	02037	MUR410	1902-0030	02037	1N3028B
1901-0841	02062	HSCB-1001	1901-1108	09914	UES1305	1901-1244	02037	MUR140	1902-0033	01991	1N823
1901-0842	02883	PAD5	1901-1109	09914	UES1306	1901-1246	03334	BYD33M	1902-0035	02037	1N3008B
1901-0843	02037	1N5002R	1901-1110	09914	UES1105	1901-1247	02062	HSM5-0002	1902-0039	06563	1N1597A
1901-0844	02037	MPN3401	1901-1111	09914	UES1303	1901-1248	02037	1N4937 SELECTED	1902-0041	02237	1N751A
1901-0845	05088	VG-2X	1901-1112	03334	BYV27-150	1901-1249	03334	BYV36E	1902-0082	02037	1N1596A
1901-0846	02037	1N5284	1901-1113	01921	RUR810	1901-1251	05088	H1601-1.5	1902-0085	02037	1N4750A
1901-0847	02713	RGP-10M	1901-1114	10851	BAL 74	1901-1252	04200	TMPD4150	1902-0086	02688	1N1513
1901-0848	05088	V334X	1901-1115	04507	DSR3800X	1901-1253	03334	BA482	1902-0088	02037	1N3003B
1901-0849	02713	1N4007	1901-1116	04507	DSR3700X	1901-1254	11708	BAR42	1902-0089	02037	1N3004B
1901-0858	03334	BYW29-50	1901-1117	00746	ISS135	1901-1255	04550	DE131	1902-0095	02037	1N746
1901-0859	03038	40HQ030	1901-1118	06002	BYV27-100	1901-1256	02037	MR826	1902-0121	02763	CD36191
1901-0860	02037	MBR-3535	1901-1119	02062	5082-3042	1901-1257	02037	MBRD320	1902-0156	02037	1N2986B
1901-0866	01973	MPD200	1901-1121	02037	MR2406	1901-1260	04504	GP10Y	1902-0173	02037	SZ30016-0176
1901-0868	02037	1N5817	1901-1122	02037	MR862R	1901-1261	02237	FDS01501	1902-0178	02037	1N3004RA
1901-0869	02037	1N5297	1901-1123	02713	1N5408	1901-1263	03287	SAB 10	1902-0245	02037	1N4099
1901-0870	02037	MR502	1901-1126	10881	BYW80-100	1901-1264	06121	BAS 40-05	1902-0517	02037	SZ11213-48
1901-0875	02062	5082-3900	1901-1127	00046	UES803	1901-1265	03287	SMCJ15C	1902-0522	02037	1N5340B
1901-0877	02037	MR340P	1901-1128	02037	1N5819RL	1901-1266	02883	SSTPAD200	1902-0526	02037	1N5305
1901-0878	02664	SMFR30K	1901-1129	02037	MUR105	1901-1267	03038	50SQ080	1902-0528	02037	1N5524D
1901-0879	01973	A115M	1901-1130	02037	MUR860	1901-1268	02037	MBRD330	1902-0549	02037	1N5365A
1901-0881	02062	5082-0001	1901-1131	02062	5082-2810	1901-1269	03334	BAV23S	1902-0570	02688	DZ70302N
1901-0882	05088	V336X	1901-1132	02865	A48021 SELECTED	1901-1272	02037	BYW29-200AC	1902-0584	02037	SZG30509
1901-0883	02062	HSCB-3486	1901-1133	04550	1N5626	1901-1273	04504	FE6B	1902-0625	02037	1N829
1901-0885	02037	MR1-1400	1901-1134	03334	BA483	1901-1274	04504	UF5406	1902-0627	02037	1N5312
1901-0887	03334	BYP59-300	1901-1135	02713	GP30B	1901-1275	03287	SMBJ13CA	1902-0631	02037	1N5351B
1901-0888	00046	1N3212	1901-1136	03038	10TQ045	1901-1276	03287	SMBJ5.0A	1902-0632	02037	1N5354B
1901-0889	02037	MR508	1901-1137	02037	MR2406F	1901-1277	11699	CEN611	1902-0640	02037	1N5847A
1901-0890	02037	1N3893	1901-1138	07766	BYV95C	1901-1278	03334	BZV861V4	1902-0643	02037	1N2979B
1901-0892	03038	20FQ040	1901-1140	02713	FES8GT	1901-1279	03334	BAT83	1902-0645	02037	1N2997RB
1901-0893	04507	DSR5500X	1901-1141	03334	BYV27-200	1901-1280	02037	1N4006	1902-0680	02037	1N827
1901-0894	01973	1N4608	1901-1142	02037	MHRD6050	1901-1281	04504	RGL41D	1902-0686	02037	1N825
1901-0895	02062	QSC1186	1901-1143	02713	FE16F	1901-1282	02037	SAL3C	1902-0692	02688	DTT90107A
1901-0896	05131	RC60	1901-1144	02037	BAV70	1901-1283	02037	MBRD350	1902-0697	02237	JANTXLN750A
1901-0904	00046	UES804	1901-1145	02037	MBAW56	1901-1284	03287	5KP75A	1902-0761	02037	1N821
1901-0905	04550	DE111	1901-1147	02713	EGP30B	1901-1285	02037	IC914	1902-0772	02037	1N935
1901-0912	02037	MBR3545	1901-1148	02037	MR818	1901-1287	11699	CEN662	1902-0777	02037	1N825
1901-0917	03287	1.5KE15A	1901-1149	02713	UF4004	1901-1288	03287	SAL3A	1902-0785	02037	1N936
1901-0920	02062	5082-2755	1901-1150	03334	BAS19	1901-1289	02062	5082-1001	1902-0786	02037	1N937
1901-0921	03038	80SQ030	1901-1151	03334	BAT17	1901-1292	02037	1N6267A	1902-0787	02037	1N938
1901-0947	02062	QPND-4414	1901-1152	02037	MBR1645	1901-1293	03334	BYW29-150	1902-0788	02037	1N3154
1901-0952	00046	1N5802	1901-1153	03038	16Mq60 (SEL)	1901-1294	02037	MR2401	1902-0791	02037	1N942
1901-0953	00046	UES601R	1901-1154	02526	S10925	1901-1295	03287	SMCJ5.0	1902-0793	02037	1N944
1901-0954	02037	1N5285	1901-1156	00046	USD945	1901-1296	00746	1N4606	1902-0795	02037	1N992B
1901-0960	05088	VSK71	1901-1157	05088	VHE1404	1901-1297	02037	MBR030	1902-0796	02037	1N989B
1901-0961	00046	UES803R	1901-1160	03334	BZX75-C2V1	1901-1298	02037	MPN3404 RLRA	1902-0903	02688	CH4106-25-1%
1901-0968	11981	A15BX107	1901-1161	02037	MLL4003T1	1901-1299	05027	126911-001	1902-0905	04507	LVA56A
1901-0970	02037	MUR115	1901-1162	04486	LL4148	1901-1300	02037	MUR880E	1902-0906	04507	LVA43A
1901-0974	05088	H2745-9	1901-1163	02713	SBS60	1901-1302	02037	MUR1560	1902-0907	04507	LVA68A
1901-0975	02037	MPN3500	1901-1164	03334	BAV10 SELECTED	1901-1303	02037	MBR340	1902-0909	02037	1N2972A
1901-0976	05088	VSK540	1901-1165	02713	SB160	1901-1304	02037	P6KE7.5CA	1902-0910	02037	1N2984RB
1901-0977	08852	MX1098	1901-1166	00039	1SS153	1901-1305	06121	BAS40	1902-0916	02037	MZ5556
1901-0978	02037	MR2400	1901-1169	02037	MURC115	1901-1306	02037	MUR120RL	1902-0918	02037	5M17ZS2
1901-0979	00046	TLD778	1901-1172	04550	1N5061	1901-1307	02037	1.5KE160A	1902-0919	02037	5M18ZS2
1901-0981	02526	1N5653A	1901-1173	02037	MBR745	1901-1308	03334	BY505	1902-0920	02037	1N5345B
1901-0982	02526	1N5651A	1901-1176	02062	QPND-4313	1901-1309	05131	RHC10-12	1902-0924	02037	1N5927
1901-0983	02526	1N5641A	1901-1180	02037	MMBV3401	1901-1311	04504	RPR4-D-10	1902-0925	02037	1N4740A
1901-0984	00046	VX30	1901-1181	02883	JPAD20	1901-1312	03287	SMBG6.5C	1902-0927	02037	1N5349
1901-0985	02865	DDC 4565-96	1901-1183	03334	BAT85	1901-1313	04504	UF4007	1902-0931	02037	1N120Z5
1901-0986	02037	MBR1060	1901-1188	02037	MR758	1901-1314	03799	RUR810	1902-0933	02037	1N5370B
1901-0987	01921	RUR810	1901-1189	02037	MUR1510	1901-1315	03287	DA15S			

Transistor/Diode Cross Reference – HP P/N to JEDEC No.

HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.	HPP/N	Mfr.	Desc.
1902-0981	02037	5M23ZS2	1902-1459	02037	MLL5243	1902-1594	02037	1N751D	1906-0284	02713	DF01
1902-0982	02037	5M28ZS2	1902-1460	02037	MLL5245	1902-1595	03334	BZX84-C68	1906-0285	02788	MAHE202L
1902-0983	01691	1N4621	1902-1461	02037	MLL5246	1902-3129	10818	BZX87V5	1906-0286	02037	MBR2035CT
1902-0986	02037	1N6270A	1902-1462	02037	LL5248	1906-0006	05088	VE48	1906-0289	05088	VM28X
1902-0987	02037	1N2991	1902-1463	02037	MLL5250	1906-0007	02037	MDA2502	1906-0290	02037	MBAW56
1902-0990	02037	MZC5.6B2	1902-1464	02037	MLL5251	1906-0008	02037	MDA2500	1906-0291	02037	MBAV99
1902-0991	02803	1N4577	1902-1465	02037	MLL5252	1906-0016	02037	MDA2506	1906-0292	02037	MBR2545CT
1902-0993	03287	1.5KE7.5C	1902-1466	02037	MLL5254	1906-0017	02037	MDA 990-3	1906-0293	00746	DAN601
1902-0994	02037	1M6.2Z1	1902-1467	02037	MLL5256	1906-0026	02037	MMD7000	1906-0294	02865	DMF5848
1902-0995	02037	1N5373B	1902-1468	02037	MLL5257	1906-0027	02037	MDA922-6	1906-0295	02713	FEF16CT-3
1902-0996	02037	1N5336B	1902-1469	02037	MLL5258	1906-0028	02037	MDA922-3	1906-0296	03334	BYV32-150
1902-0998	02037	1N3001B	1902-1470	02037	MLL5259	1906-0032	02037	MDA960-3	1906-0298	02037	MMBD7000
1902-1000	02037	1N5366B	1902-1471	02037	MLL5260	1906-0035	00046	6T3-2	1906-0299	03038	1KA850
1902-1172	02037	1N4103	1902-1472	02037	MLL5261	1906-0039	02664	SCPA2	1906-0300	02713	SB1660
1902-1199	06563	1N1604A	1902-1473	02037	MLL5262	1906-0040	02664	SCDA2	1906-0301	05088	VHE2404
1902-1205	02037	1N2979RB	1902-1474	02037	MLL5263	1906-0042	02037	MSD 6150	1906-0303	03334	BAV99
1902-1217	02037	1N3998RA	1902-1475	02037	MLL5265	1906-0043	04504	KBPC1202P-1	1906-0304	00046	UES2603
1902-1226	02037	1N3996A	1902-1476	02037	MLL5266	1906-0049	02037	MDA980-6	1906-0305	02713	KBPC-W35-06
1902-1232	02037	1N3997RA	1902-1477	02037	MLL5267	1906-0051	11699	CBR1F-010	1906-0306	02713	DF06M
1902-1259	02037	1N5357B	1902-1478	02037	MLL5268	1906-0052	05088	VH148	1906-0307	02037	MBR20045CT
1902-1260	02037	1N5255C	1902-1479	02037	MLL5270	1906-0055	02664	SCAJ4	1906-0308	02713	FEN16CT7
1902-1278	02037	1N5348B	1902-1480	02037	MZC4.7A10	1906-0058	02037	MDA990-2	1906-0309	05088	VJ848
1902-1286	02037	1N5342B	1902-1481	02713	1N5953B	1906-0067	05088	R754	1906-0312	02037	MAD130P
1902-1288	02037	1N5358B	1902-1482	02037	1N5958B	1906-0069	04504	DF04M	1906-0315	02713	FSA3237P
1902-1291	02037	1N5338B	1902-1486	02037	1N5388B	1906-0071	02664	SCPA05F	1906-0320	06121	BAS 40-04
1902-1292	02037	1N5372B	1902-1487	03334	BZX84-C12	1906-0072	02664	SCBA2F	1906-0321	02037	MUR1620CT
1902-1295	02883	CL4720	1902-1488	04486	LL4747A	1906-0074	02237	FSA3157P	1906-0324	02237	FSA2565P
1902-1297	02037	1N4561A	1902-1489	04486	LL4748A	1906-0076	04504	RW04M	1906-0325	02883	DFAD10
1902-1322	02688	CH4627-25-1%	1902-1490	04486	LL4749A	1906-0077	12928	VH-448X	1906-0329	02037	MUR3020PT
1902-1323	04200	1N5857B	1902-1491	04486	LL4733A	1906-0078	12928	VJ448X	1906-0331	06121	BAS70-04
1902-1338	02634	1N5851B	1902-1492	04486	LL4742A	1906-0079	05088	VJ148X	1906-0332	06121	BAS40-06
1902-1340	02037	1N4557A	1902-1493	02037	1N5949B	1906-0082	02062	5082-2826	1906-0334	02237	FDS01503
1902-1342	02037	1N5355B	1902-1495	02688	1N5987D	1906-0085	05088	VJ848TT	1906-0335	02037	MBAV74
1902-1346	02037	1N4742A	1902-1498	02037	1N5362B	1906-0088	05088	R712E	1906-0336	02037	MBAV70
1902-1345	02037	1N5365B	1902-1501	02037	MMBZ5231	1906-0090	00046	698-1	1906-0337	03334	BAS56
1902-1346	02037	1N5355B	1902-1502	02037	MZT4554B	1906-0092	04200	ND946	1906-0338	02037	MUR1620CT OPTION TO220-C
1902-1352	04507	LVA 456A	1902-1505	02037	1N5993B	1906-0093	02037	MDA3501	1906-0339	02237	FSA2509P
1902-1356	02037	1N4753ARL	1902-1507	02037	1N5921B	1906-0094	02037	MDA-104	1906-0343	0504	KBU8B
1902-1374	02037	BZX83A5V1	1902-1509	02037	1N5333BRL	1906-0096	02037	MDA202G	1906-0344	02037	MAD1108P
1902-1380	11708	1N5341B	1902-1510	02037	1N5367B	1906-0100	02883	DFAD 100	1906-0348	04504	KBPC35-02
1902-1384	02037	1N5255C	1902-1512	02037	BZX84CV75	1906-0201	02713	KBU4Q	1906-0349	04504	KBPC602
1902-1385	02664	SK43	1902-1515	02037	1N5334BRL	1906-0202	01698	TID130	1906-0351	02037	MDA202G
1902-1387	02037	1N5244C	1902-1516	02037	1N6377	1906-0203	05131	PK10	1906-0352	02037	MURD610CT
1902-1388	02037	1N4697	1902-1518	02037	1N5334D	1906-0204	02062	5082-2804	1906-0355	02062	QSC8-8809
1902-1391	02037	1N4683	1902-1519	03334	BZX84-C3V9	1906-0205	05088	VK248	1906-0356	04504	KBPC108
1902-1392	02037	1N5256(SELECTED)	1902-1522	03287	SA100CA	1906-0210	02062	5082-2830	1906-0357	04504	FEF16T
1902-1394	02037	1N5378B	1902-1523	11708	BZW50-56B	1906-0212	02037	MDA3504	1906-0358	02237	FDS01203
1902-1396	02037	1N5335B	1902-1524	02037	MMBZ5230	1906-0213	01698	TIR101B	1906-0359	02237	FDS01505
1902-1397	02037	1N6273A	1902-1529	11708	1.5KE25OCA	1906-0214	01698	TIR201B	1906-0360	02037	MBR3045PT
1902-1398	02037	1N821D	1902-1534	03287	SA11A	1906-0216	05088	VL447	1906-0362	04504	RDP06M
1902-1399	02037	1N5248 SELECTED	1902-1535	02037	MMBZ5257B	1906-0217	02037	MDA3506	1906-0363	03038	10TPT10
1902-1400	02037	1N5244 SELECTED	1902-1536	02037	1N5368B	1906-0219	02037	MDA208	1906-0364	04078	L6210
1902-1401	02037	1N2835A	1902-1537	03287	1.5KE91C	1906-0221	02037	MDA3500	1906-0365	03334	BAS31
1902-1402	02037	1N5373A	1902-1541	03334	BZX84C3V3	1906-0222	02037	MDA2504	1906-0366	04504	KBLO8
1902-1404	10881	1.5KE18CA	1902-1542	03334	BZX84C6V2	1906-0224	02037	MDA2506	1906-0367	02037	MBRD650CT
1902-1405	02037	1N751A(SELECTED)	1902-1543	03334	BZX84C3V6	1906-0225	03038	250J84L	1906-0368	11699	CBR10F-010P
1902-1406	03406	1ML03-3.0	1902-1544	03334	BZX84C10	1906-0227	02537	NSR8142	1906-0369	02537	MB106
1902-1407	04507	1N4626	1902-1547	02037	MZC10A5	1906-0229	02037	MC1107P	1906-0372	05131	PD60
1902-1408	02037	1N5243(SELECTED)	1902-1548	03334	BZX84-B13	1906-0231	05088	R712	1906-0373	02037	MUR1640CT
1902-1409	02037	1N2989B	1902-1549	03334	BZX84-B18	1906-0233	02713	KBFO6	1906-0374	03038	60CDQ045
1902-1410	02037	1N6283A	1902-1550	03334	BZX84-B20	1906-0234	02062	5082-2370	1906-0375	02037	MMAD1107
1902-1411	02037	1N4574A	1902-1554	02037	1N964B SELECTED	1906-0236	05088	R712A	1906-0377	12810	BR102
1902-1423	02037	1N5338A	1902-1555	02037	MMBZ5232B	1906-0238	05088	VSK3040T	1906-0378	02037	MMAD130
1902-1424	10881	BZX84C5V6	1902-1556	03334	BAS17	1906-0239	01691	SD-241	1906-0381	04200	TND907
1902-1425	02037	1N5359B	1902-1558	05942	BZX84C11	1906-0242	05088	R711XE	1906-0382	02037	MMAD1108
1902-1426	02037	1N5230(SELECTED)	1902-1559	02037	MMBZ5237BT1	1906-0244	02865	D5848	1906-0383	04504	KBPC35-04
1902-1427	02037	1N2805A	1902-1562	03334	BZX84-B4V3	1906-0250	03038	95-4492	1906-0384	01698	SN74S1050D
1902-1430	02037	1M6.2ZZ10	1902-1563	03334	BZX84-B2V7	1906-0252	02062	5082-2272	1906-0385	01698	SN74S1053D
1902-1431	02037	1N4690	1902-1564	03334	BZX84-C24	1906-0254	00046	UES2602R	1906-0386	00046	USD4545C
1902-1432	02037	1N5381B	1902-1565	03334	BZX84-C4V7	1906-0255	02713	KBPC606	1906-0387	03406	FDS01703
1902-1434	02037	1N3998RA	1902-1566	02037	1N5228(SEL)	1906-0256	02713	WO2M	1906-0388	02037	MSD6101
1902-1436	02037	MMBZ5232B	1902-1567	02037	MMBZ5234B	1906-0257	02237	FSA2619P	1906-0389	04504	KBPC3506
1902-1437	02037	MMBZ5241B	1902-1568	03334	BZV40-C12	1906-0258	02037	MDA970A2	1906-0390	03038	35MB60A
1902-1438	02037	1N5944B	1902-1570	03334	BZX84-C2V4	1906-0259	00046	SES5603CR	1910-0002	02682	1N38B
1902-1439	02037	1N2835RA	1902-1571	02037	1N4551A	1906-0262	00046	UES 2402	1910-0003	02682	1N55A
1902-1440	02037	1N5274A	1902-1572	03334	BZX84-C15	1906-0263	05088	VSK12	1910-0004	06418	1N90
1902-1441	02037	MLL5221	1902-1574	03334	BZX84C6V8	1906-0264	05088	VKP 248	1910-0014	02682	1N277
1902-1442	02037	MLL5223	1902-1575	02037	1N5348BRL	1906-0265	00046	USD 745C	1910-0023	02682	1N270
1902-1443	02037	MLL5225	1902-1576	02037	1N5263B	1906-0266	02037	MDA3502	1910-0024	02682	1N191
1902-1444	02037	MLL5226	1902-1577	02037	1N4761A	1906-0267	02037	MUR3035CT	1910-0025	02682	1N995
1902-1445	02037	MLL5227	1902-1578	02037	1N3337A	1906-0268	03714	ID101	1910-0031	02682	1N34A
1902-1446	02037	MLL5228	1902-1579	02037	1N5253B	1906-0269	03038	12CTQ040	1910-0033	02682	1N279
1902-1447	02037	MLL5229	1902-1580	03334	BZX84C75	1906-0270	05088	VHE2402A	1910-0041	01921	1N2326
1902-1448	02037	MLL5230	1902-1581	02037	MZC6.2A5	1906-0271	05088	R712X	1911-0001</		

Transistor/Diode Cross Reference – JEDEC No. to HP P/N

JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N
MMBFJ310T1	02037	1855-0764	1N3289	01973	1901-0307	1N5230 (SELECTED)	02037	1902-1426
.4M6. 22Z10	02037	1902-1430	1N3289R	01973	1901-0308	1N5243 (SELECTED)	02037	1902-1408
.4M8. 221	02037	1902-0994	1N3337A	02037	1902-1578	1N5244 SELECTED	02037	1902-1400
1. 5KE120C	03287	1901-1207	1N3491	02037	1901-0406	1N5248 SELECTED	02037	1902-1399
1. 5KE15A	03287	1901-0917	1N3491R	02037	1901-0343	1N5253B	02037	1902-1579
1. 5KE160A	02037	1901-1307	1N3492	02037	1901-0424	1N5256 (SELECTED)	02037	1902-1392
1. 5KE18CA	10881	1902-1404	1N3494	02037	1901-0426	1N5263B	02037	1902-1576
1. 5KE250CA	11708	1902-1529	1N34A	02682	1910-0031	1N5274A	02037	1902-1440
1. 5KE39	03287	1901-1205	1N3563	01921	1901-0742	1N5283	02037	1901-0758
1. 5KE39C	03287	1901-1206	1N3595	00046	1901-0376	1N5284	02037	1901-0846
1. 5KE7. 5C	03287	1902-0993	1N3595	00046	1901-1195	1N5285	02037	1901-0954
1. 5KE91C	03287	1902-1537	1N3644	02664	1901-0752	1N5297	02037	1901-0869
1. 5SE18C	02526	1902-0976	1N3662	02037	1901-0431	1N5305	02037	1902-0526
100JB4L	03038	1906-0274	1N3712	01973	1912-0009	1N5312	02037	1902-0627
10J7T10	03038	1906-0363	1N3714	01973	1912-0007	1N5333BRL	02037	1902-1509
10L200	02158	1901-1329	1N3716	01973	1912-0002	1N5334BRL	02037	1902-1515
10TQ045	03038	1901-1136	1N3718	01973	1912-0006	1N5334D	02037	1902-1518
11DQ10	03038	1901-1336	1N3720	01973	1912-0014	1N5335B	02037	1902-1396
126911-001	05027	1901-1299	1N3881	02037	1901-0756	1N5336B	02037	1902-0996
12CTQ040	03038	1906-0269	1N3889	02037	1901-0791	1N5338A	02037	1902-1423
16MQ40 (SEL)	06078	1901-0990	1N3889R	06563	1901-0511	1N5338B	02037	1902-1291
16MQ60 (SEL)	03038	1901-1153	1N3890	02037	1901-0672	1N5340B	02037	1902-0522
1GG2-4032	10743	1855-0663	1N3890R	02037	1901-0684	1N5341B	11708	1902-1380
1KAB60	03038	1906-0299	1N3891	02037	1901-0717	1N5342B	02037	1902-1286
1M120ZS5	02037	1902-0931	1N3891R	02037	1901-0774	1N5345B	02037	1902-0920
1N1084	03038	1901-0004	1N3893	02037	*901-0890	1N5348B	02037	1902-1278
1N1116	02037	1901-0060	1N3899R	02037	1901-0678	1N5348BRL	02037	1902-1575
1N1183A	06121	1901-0315	1N38B	02682	1910-0002	1N5349	02037	1902-0927
1N1183AR	02086	1901-0316	1N3900	02037	1901-0671	1N5351B	02037	1902-0631
1N1184A	02086	1901-0317	1N3911	02037	1901-1333	1N5352	02037	1902-0977
1N1184AR	02086	1901-0318	1N3912	00046	1901-0888	1N5354B	02037	1902-0632
1N1186AR	02086	1901-0319	1N3958	01973	1901-0478	1N5355B	02037	1902-1340
1N1187A	02086	1901-0320	1N3996A	02037	1902-1226	1N5355B	02037	1902-1346
1N1187AR	02086	1901-0321	1N3997RA	02037	1902-1232	1N5357B	02037	1902-1259
1N1200A	01921	1901-0002	1N3998RA	02037	1902-1217	1N5358B	02037	1902-1288
1N1206A	01921	1901-0314	1N3998RA	02037	1902-1434	1N5359B	02037	1902-1425
1N1344	02086	1901-0019	1N4002	02086	1901-0704	1N5362B	02037	1902-1498
1N1347A	01973	1901-0309	1N4003	02037	1901-1203	1N5365A	02037	1902-0549
1N1513	02688	1902-0086	1N4004	01608	1901-0743	1N5366B	02037	1902-1000
1N1581	01991	1901-0138	1N4004G	04486	1901-0731	1N5367B	02037	1902-1510
1N1596A	02037	1902-0082	1N4006	02037	1901-1280	1N5368B	02037	1902-1536
1N1597A	06563	1902-0039	1N4007	02237	1901-0732	1N5370B	02037	1902-0933
1N1604A	06563	1902-1199	1N4007	02713	1901-0849	1N5372B	02037	1902-1292
1N1763	01921	1901-0126	1N4099	02037	1902-0245	1N5373A	02037	1902-1402
1N1764	04550	1901-0131	1N4103	02037	1902-1172	1N5373B	02037	1902-0995
1N191	02682	1910-0024	1N4148	00046	1901-0040	1N5378B	02037	1902-1394
1N2148	04583	1901-0398	1N4148	00046	1901-0044	1N5380B	02037	1902-0934
1N2158	01973	1901-0305	1N4148	00046	1901-0081	1N5381B	02037	1902-1432
1N2158R	01973	1901-0306	1N4148	00046	1901-0461	1N5388B	02037	1902-1486
1N21B	02788	1900-0001	1N4150	00046	1901-0039	1N5393	02037	1902-1486
1N21BMR	01250	1900-0010	1N4150	04486	1901-0050	1N5395	01921	1901-0838
1N21E	02865	1900-0017	1N4150	00046	1901-0050	1N540	00046	1901-0053
1N2242	05131	1901-0151	1N4154	02763	1901-1098	1N540	04550	1901-0010
1N2326	01921	1910-0041	1N4156	04550	1901-1052	1N5406	02713	1901-0759
1N23B	01250	1900-0012	1N415C	01973	1901-0463	1N5408	02713	1901-1123
1N23C	02788	1900-0018	1N416B	02788	1900-0015	1N5418	00046	1901-0790
1N250C	01973	1901-0310	1N416BM	02788	1900-0016	1N5524C	02037	1902-1387
1N2525	02037	1901-0057	1N4448	02788	1900-0011	1N5524C	02037	1902-0528
1N253	01991	1901-0013	1N4530	02237	1901-1200	1N5525C	02037	1902-1260
1N2565	04583	1901-0383	1N4531	01973	1901-0370	1N5525C	02037	1902-1384
1N265P	02788	1900-0007	1N4551A	01698	1901-1015	1N5553	02664	1901-0750
1N270	02682	1910-0023	1N4557A	02037	1902-1571	1N5554	02664	1901-0751
1N277	02682	1910-0014	1N4561A	02037	1902-1338	1N55A	02682	1910-0003
1N279	02682	1910-0033	1N4574A	02037	1902-1297	1N5623	02664	1901-1103
1N2805A	02037	1902-1427	1N4577	02037	1902-1411	1N5626	04550	1901-1133
1N2835A	02037	1902-1401	1N4603	02803	1902-0991	1N5641A	02526	1901-0983
1N2835RA	02037	1902-1439	1N4606	02865	1900-0016	1N5651A	02526	1901-0982
1N2972A	02037	1902-0909	1N4607	00746	1901-1296	1N5653A	02526	1901-0981
1N2979B	02037	1902-0643	1N4607	00046	1901-0041	1N5711	04078	1900-0233
1N2979RB	02037	1902-1205	1N4608	00046	1901-0620	1N5802	00046	1901-0952
1N2984RB	02037	1902-0910	1N4621	01973	1901-0894	1N5812	03627	1901-0765
1N2986B	02037	1902-0156	1N4626	01691	1902-0983	1N5817	02037	1901-0868
1N2989B	02037	1902-1409	1N4683	04507	1902-1407	1N5817 (RELAXED)	02037	1901-1080
1N2991	02037	1902-0987	1N4697	02037	1902-1391	1N5818	02037	1901-0734
1N2992RB	02037	1902-0021	1N4719	02037	1902-1388	1N5819RL	02037	1901-1128
1N2997RB	02037	1902-0645	1N4720	02037	1901-0409	1N5821	02037	1901-0782
1N2999A	02037	1902-0028	1N4721	02037	1901-0140	1N5823	02037	1901-0726
1N3001B	02037	1902-0998	1N4722	02037	1901-0164	1N5827	02037	1901-0834
1N3003B	02037	1902-0088	1N4723	02037	1901-0412	1N5847A	02037	1902-0640
1N3004B	02037	1902-0089	1N4725	02037	1901-0414	1N5851B	02634	1902-1332
1N3004RA	02037	1902-0178	1N4742A	02037	1901-0493	1N5857B	04200	1902-1323
1N3008B	02037	1902-0035	1N4750A	02037	1902-1342	1N5908	02526	1902-0939
1N3028B	02037	1902-0030	1N4753ARL	02037	1902-0085	1N5927	02037	1902-0924
1N3064	02237	1901-0038	1N4761A	02037	1902-1356	1N5944B	02037	1902-1438
1N3070	00046	1901-0519	1N4934	02037	1902-1577	1N5949B	02037	1902-1493
1N3154	02037	1902-0788	1N4936	02037	1901-0693	1N5953B	02713	1902-1481
1N3208	02037	1901-0421	1N4937	02713	1901-1065	1N5954B	02713	1902-1482
1N3209	02037	1901-0032	1N4937 SELECTED	02037	1901-0831	1N5987D	02688	1902-1495
1N3209R	02037	1901-0346	1N5000	02037	1901-1248	1N5993B	02037	1902-1506
1N3210	02037	1901-0048	1N5002	02037	1901-0775	1N6021B	02037	1902-1507
1N3212	02037	1901-0423	1N5002R	02037	1901-0492	1N6074	02664	1901-0786
1N3260R	01973	1901-0311	1N5003	02037	1901-0843	1N6096	01691	1901-0833
1N3262	01973	1901-0312	1N5061	02037	1901-0494	1N625	02763	1901-0071
1N3262R	01973	1901-0313	1N5228 (SEL)	04550	1901-1172	1N6267A	02037	1901-1292
				02037	1902-1566	1N6270A	02037	1902-0986

Transistor/Diode Cross Reference – JEDEC No. to HP P/N

JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N
1N6273A	02037	1902-1397	2N2647	04550	1855-0027	2N3824	01698	1855-0224
1N6278A	02037	1901-1319	2N2857	01921	1854-0048	2N3855A	01973	1854-0057
1N628	01991	1901-0058	2N2857	01921	1854-0323	2N3866	01921	1854-0233
1N6280AC	02037	1901-1331	2N2869	01921	1850-0126	2N3866A	02037	1854-0784
1N6283A	02037	1902-1410	2N2895	02037	1854-0527	2N3867	02037	1853-0442
1N6291AC	02037	1901-1330	2N2896	02037	1854-0748	2N3879	01921	1854-0476
1N6377	02037	1902-1516	2N2904	01698	1853-0013	2N388A	01698	1851-0024
1N645	00046	1901-0025	2N2904A	02037	1853-0012	2N3904	02037	1854-0215
1N645	00046	1901-0033	2N2905A	02037	1853-0314	2N3904	02037	1854-1028
1N645	00046	1901-0537	2N2907	02037	1853-0205	2N3904	02037	1854-1061
1N647	01698	1901-0129	2N2907A	02682	1853-0281	2N3904	02037	1854-1084
1N647	00046	1901-0356	2N2907A (SELECTED)	02037	1853-0571	2N3904	03406	1854-1110
1N660	01698	1901-0132	2N2913	02037	1854-0349	2N3904 CHIP	02037	1854-0770
1N662	03447	1901-0144	2N2920	02237	1854-0792	2N3904 (SEL)	02037	1854-1177
1N746	02037	1902-0095	2N2925	01973	1854-0066	2N3904-STYLE D	02037	1854-1232
1N751A	02237	1902-0041	2N2946A	01698	1853-0322	2N3904RLRA2	02037	1854-1048
1N751A (SELECTED)	02037	1902-1405	2N2972	02037	1854-0411	2N3905	02037	1853-0292
1N751D	02037	1902-1594	2N2996	01698	1850-0172	2N3906 (SEL)	02037	1853-0036
1N754	02037	1902-0003	2N3013	06338	1854-0267	2N3906 (SEL)	02037	1853-0563
1N76	02865	1900-0004	2N3014	02037	1854-0842	2N3906 (SEL)	02037	1853-0659
1N76A	01250	1900-0020	2N3019	02037	1854-0263	2N3906-STYLE D	02037	1853-0707
1N821	02037	1902-0761	2N3053	01921	1854-0667	2N3922	02763	1855-0038
1N821D	02037	1902-1398	2N3053LV 2449	03334	1854-0090	2N3933	03406	1854-0238
1N823	01991	1902-0033	2N3053S	01921	1854-0039	2N3955	03406	1855-0207
1N825	02037	1902-0686	2N3054	01921	1854-0072	2N3959	02037	1854-0220
1N825	02037	1902-0777	2N3054	01921	1854-0590	2N3966	02883	1855-0286
1N827	02037	1902-0680	2N3055	01921	1854-0063	2N3993	02037	1855-0387
1N829	02037	1902-0625	2N3134	02037	1853-0006	2N3994	02037	1855-0789
1N831	02788	1900-0019	2N3227	02037	1854-0260	2N4028	02237	1853-0206
1N90	06418	1910-0004	2N3232	02037	1854-0084	2N4032	02237	1853-0320
1N91	01973	1911-0001	2N3250	02037	1853-0008	2N4033	01698	1853-0422
1N914	01698	1901-0710	2N3250	02037	1853-0287	2N4034	02237	1853-0072
1N914B	03406	1901-1340	2N3251	02037	1853-0007	2N4035	02237	1853-0258
1N935	02037	1902-0772	2N3262	01921	1854-0242	2N4036	01921	1853-0045
1N936	02037	1902-0785	2N3302	02237	1854-0278	2N4036	02037	1853-0590
1N937	02037	1902-0786	2N3304	02237	1853-0014	2N4037	01921	1853-0051
1N938	02037	1902-0787	2N3330	01698	1855-0393	2N4044	03191	1854-0248
1N941	02037	1902-0018	2N3335	01973	1854-0026	2N4046	02237	1854-0478
1N942	02037	1902-0791	2N3382	03714	1855-0390	2N404A	06632	1850-0062
1N944	02037	1902-0793	2N3391	01973	1854-0033	2N4092	02037	1855-0371
1N964B SELECTED	02037	1902-1554	2N3392	04550	1854-0098	2N4117	02883	1855-0208
1N989B	02037	1902-0796	2N3393	01973	1854-0218	2N4117A	02883	1855-0305
1N992B	02037	1902-0795	2N3415	04550	1854-0093	2N4119A	03406	1855-0463
1N995	02682	1910-0025	2N3417	04200	1854-1180	2N4126	02037	1853-0685
1NC4740A	02037	1902-0925	2N3436	02763	1855-0005	2N4209	02037	1853-0405
15MB5918B	02037	1902-1583	2N3439	01921	1854-0079	2N4233A	02037	1854-0600
1SS135	00746	1901-1117	2N3440	01921	1854-0234	2N4236	02037	1853-0213
1SS153	00039	1901-1166	2N3441	01921	1854-0216	2N4237	02037	1854-0556
20FQ040	03038	1901-0892	2N3441	03171	1854-1147	2N4239	02037	1854-0361
250JBL	03038	1906-0225	2N3442	01921	1854-0217	2N4240	01921	1854-0311
25D786	00746	1854-0991	2N3467	03406	1853-0399	2N4258	02237	1853-0081
29C	01921	1854-0644	2N3468	02037	1853-0574	2N4261	02037	1853-0686
2C3906	02037	1853-0614	2N3478	01921	1854-0325	2N4264	02037	1854-1186
2N1131	01698	1853-0019	2N3494	02037	1853-0071	2N4338	02883	1855-0341
2N1183	01921	1850-0064	2N3501 (SEL)	02037	1854-0813	2N4342	02237	1855-0056
2N1306	01698	1851-0025	2N3553	01921	1854-0308	2N4348	01921	1854-0382
2N1307	01698	1850-0173	2N3563	02237	1854-0418	2N4351	02037	1855-0380
2N1308	01698	1851-0037	2N3583	01921	1854-0282	2N4352	02037	1855-0309
2N1309	01698	1850-0151	2N3585	01921	1854-0643	2N4360	02237	1855-0052
2N1358	05840	1850-0150	2N3633	01991	1854-0315	2N4384	02634	1854-0226
2N1377	01698	1850-0170	2N3634	02037	1853-0028	2N4384A CHIP	03406	1854-0771
2N1482	01921	1854-0214	2N3635	02037	1853-0462	2N4391	02883	1855-0420
2N1499A	03571	1850-0093	2N3637	02037	1853-0675	2N4391	02883	1855-0630
2N1523	05840	1850-0194	2N3638	02037	1853-0638	2N4391 (CHIP)	02883	1855-0653
2N1671A	01973	1855-0001	2N3640RLRA1	02037	1853-0665	2N4392	02037	1855-0386
2N1671B	01973	1855-0021	2N3646	02237	1854-0432	2N4392	02037	1855-0829
2N1671C	01973	1855-0077	2N3663	01973	1854-0219	2N4393	02883	1855-0414
2N1701	01921	1854-0062	2N3685	03714	1855-0430	2N4398	02037	1853-0310
2N1701	01921	1854-0613	2N3703	01698	1853-0023	2N4398	02037	1853-0421
2N1760	02783	1850-0406	2N3713	02037	1854-0252	2N4401	02037	1854-0467
2N2060	02037	1854-0761	2N3714	02037	1854-1018	2N4401	02037	1854-0832
2N2102	01921	1854-0067	2N3715	02037	1854-0264	2N4401	02037	1854-1039
2N2194	01698	1854-0281	2N3725	01698	1854-0547	2N4401	02037	1854-1126
2N2218	02037	1854-0053	2N3725A	01698	1854-0687	2N4403	02037	1853-0271
2N2218A	02037	1854-0013	2N3737	02037	1854-0988	2N4403	02037	1853-0419
2N2219A	02037	1854-0637	2N3739	02037	1854-0324	2N4403	02037	1853-0565
2N2221	02037	1854-0032	2N3740	02037	1853-0052	2N4405	02037	1853-0650
2N2221A	02037	1854-1245	2N3741	02037	1853-0392	2N4410	02037	1854-0365
2N2222	02037	1854-0210	2N3762	02037	1853-0429	2N4416	01698	1855-0327
2N2222A	02682	1854-0477	2N3766	02037	1854-0259	2N4416A	02037	1855-0276
2N2223	02037	1854-0014	2N3771	01921	1854-0313	2N4416A CHIP	02037	1855-0256
2N2369	02237	1854-0030	2N3771	01921	1854-0566	2N4428	02037	1854-0851
2N2369A	02037	1854-0809	2N3771	01921	1854-1124	2N4853	02037	1855-0099
2N2405	01921	1854-0352	2N3772	01921	1854-0519	2N4857	03406	1855-0244
2N2430	03334	1851-0041	2N3772 (SEL)	02037	1854-1051	2N4860	02037	1855-0632
2N2432A	01698	1854-0557	2N3773	01921	1854-0733	2N4891	01698	1855-0065
2N2483	02237	1854-0304	2N3789	02037	1853-0031	2N4900	02037	1853-0323
2N2501	02037	1854-0211	2N3791	02037	1853-0059	2N4902	02037	1853-0223
2N2538	01698	1854-0213	2N3792	02037	1853-0311	2N4912	02037	1854-0399
2N2540	02037	1854-0786	2N3799	02037	1853-0360	2N4917	02237	1853-0089
2N2552	01698	1850-0181	2N3799	01698	1853-0451	2N4917	02237	1853-0597
2N2556	01698	1850-0076	2N3808	02037	1853-0594	2N4917	02237	1853-0640
2N2608	03406	1855-0297	2N3809	02037	1853-0269	2N4917-J25Z	03406	1853-0708
2N2646	04550	1855-0010	2N3811	02037	1853-0673	2N4918	02037	1853-0084

Transistor/Diode Cross Reference – JEDEC No. to HP P/N

JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N
2N4919	02037	1853-0222	2N5956	02037	1853-0303	2SB737	00746	1853-0550
2N4920	02037	1853-0204	2N5963	02237	1854-0548	2SB965	00039	1853-0631
2N4922	02037	1854-0389	2N5986 (SELECTED)	02037	1853-0378	2SC1623	03334	1854-1132
2N4923	02037	1854-0347	2N6027	04550	1855-0314	2SC2275	00039	1854-1119
2N4959	02037	1853-0430	2N6028	04550	1855-0346	2SC2334	00039	1854-0860
2N4966	01698	1854-0397	2N6049	02037	1853-0413	2SC2429 (SEL)	06344	1854-0940
2N5039	01921	1854-0762	2N6051	02037	1853-0391	2SC2690	00039	1854-1115
2N5070	01921	1854-0386	2N6053	02037	1853-0351	2SC2718	00039	1854-1112
2N5087	03406	1853-0086	2N6055	02037	1854-0611	2SC2876	06354	1854-1003
2N5088	02037	1854-0392	2N6056	01921	1854-0774	2SC2878	06354	1854-1041
2N5088	03406	1854-1040	2N6057	02037	1854-0669	2SC2987	00039	1854-1118
2N5088	02037	1854-1207	2N6107	01921	1853-0371	2SC2987A	00039	1854-1113
2N508A	01979	1850-0154	2N6107 (SEL)	02037	1853-0667	2SC3281	06354	1854-1117
2N5105	03334	1855-0322	2N6109	02037	1853-0469	2SD1288	00039	1853-0630
2N5109	01921	1854-0378	2N6124	02037	1853-0661	2SD1378	00746	1854-1187
2N5114	02883	1855-0421	2N6211	01921	1853-0328	2SD786	00746	1854-1136
2N5115	02883	1855-0402	2N6213	02037	1853-0670	2SK523	00039	1855-0570
2N5115 (SEL)	03406	1855-0540	2N6248	01921	1853-0439	2SK533	00039	1855-0571
2N5116	03714	1855-0278	2N6254	01921	1854-0755	2SK680-T1	00039	1855-0806
2N5116	03406	1855-0413	2N6258	01921	1854-0576	35821E	02062	1854-0769
2N5179	02037	1854-0345	2N6259	01921	1854-0577	35MB60A	03038	1906-0390
2N5179	01921	1854-0431	2N6259	02037	1854-1133	31 05	02664	1901-0699
2N5179 (SEL)	02037	1854-0994	2N6261	01921	1854-0738	3M128	01921	1855-0306
2N5179 (SEL)	02037	1854-1043	2N6282	02037	1854-0671	3M138	01921	1855-0332
2N5189	01921	1854-0570	2N6289	01921	1854-0837	3M163	02883	1854-0432
2N5191	02037	1854-0368	2N6290	11981	1854-0881	3M172	03714	1855-0323
2N5192	02037	1854-0453	2N6292	01921	1854-0765	JM190	03714	1855-0279
2N5193	02037	1853-0236	2N6292	01921	1854-0917	3M190	03712	1855-0396
2N5194	02037	1853-0212	2N6294	02037	1854-0698	3M215	01698	1855-0250
2N5198	02883	1855-0301	2N6296	02037	1853-0383	3M91	02634	1853-0057
2N5210	02037	1854-0409	2N6296	02037	1854-0662	3SF1	02664	1901-0674
2N5217	03776	1854-0286	2N6298	02037	1853-0617	3SF2	02664	1901-0988
2N5239	01921	1854-1085	2N6300	02037	1854-0648	40250	01921	1854-0224
2N5245	02037	1855-0688	2N6305	02037	1854-0785	40313	01921	1854-0383
2N5245 (SEL)	02037	1855-0690	2N6306	02037	1854-0623	40346	01921	1854-0095
2N5246	01698	1855-0285	2N6306	01921	1854-0767	40394	01921	1853-0087
2N5247	03406	1855-0257	2N6308	02037	1854-0624	40673	01921	1855-0534
2N5262	01921	1854-0363	2N6315	02037	1854-0756	40831	01921	1853-0330
2N5266	02037	1855-0721	2N6317	02037	1853-0418	40852	01921	1854-0617
2N5268	02037	1855-0277	2N6331	01698	1853-0381	40HF1100S05	03038	1901-1316
2N5294	01921	1854-0370	2N6338	02037	1854-0741	40HQ030	03038	1901-0859
2N5301	02037	1854-0398	2N6339	02037	1854-0746	5082-0001	02062	1901-0893
2N5320	01921	1854-0999	2N6340	02037	1854-1145	5082-0001	02062	1900-0993
2N5333	01698	1853-0349	2N6354	01921	1854-0715	5082-0001 SELECTED	02062	1900-0557
2N5396	02763	1855-0283	2N6420	02037	1853-0548	5082-0007	02062	1901-0169
2N5397	03406	1855-0259	2N6423	02037	1853-0414	5082-0009	02062	1900-0060
2N5397	03406	1855-0498	2N6429A	02037	1854-0831	5082-0049	02062	1900-0066
2N5400	02037	1853-0457	2N6437	02037	1853-0526	5082-0080	02062	1900-0025
2N5401	02037	1853-0264	2N6474	01921	1854-0727	5082-0830	02062	1901-1193
2N5415	01921	1853-0224	2N6476	01921	1853-0406	5082-1001	02062	1901-1289
2N5415	03334	1853-0493	2N6477	01921	1854-0737	5082-1006	02062	1901-1232
2N5416	01921	1853-0221	2N6488	01921	1854-0884	5082-2272	02062	1906-0252
2N5416 (SEL)	02037	1853-0576	2N6489	02037	1853-0365	5082-2279	02062	1900-0231
2N5427	02037	1854-0758	2N6490	02037	1853-0478	5082-2370	02062	1906-0234
2N5428	02037	1854-0596	2N6491	02037	1853-0542	5082-2755	02062	1901-0920
2N5428	02037	1854-0766	2N6497	02037	1854-0839	5082-2794	02062	1900-0088
2N5429	02037	1854-0586	2N6499	02037	1854-0889	5082-2800 SELECTED	02062	1900-0089
2N5432	03406	1855-0292	2N6520	02037	1853-0437	5082-2804	02062	1906-0204
2N5461	02037	1855-0689	2N6545	02037	1854-0787	5082-2805	02062	1901-0545
2N5474	02037	1855-0379	2N6554	02037	1853-0558	5082-2810	02062	1901-1131
2N5485 (SEL)	02037	1855-0096	2N6584	01698	1854-0848	5082-2826	02062	1906-0082
2N5486	02037	1855-0255	2N6609	02037	1853-0487	5082-2826 SELECTED	02062	1900-0069
2N5519	02883	1855-0398	2N6658	02883	1855-0293	5082-2830	02062	1906-0210
2N5544	02569	1855-0071	2N6659	02037	1855-0251	5082-2830	02062	1900-0079
2N5551	02037	1854-0474	2N6659	02883	1855-0614	5082-2831	02062	1900-0083
2N5556	02883	1855-0288	2N6660	02883	1855-0575	5082-2831	02062	1900-0087
2N5565	02883	1855-0232	2N6667	02037	1853-0666	5082-2835	02062	1901-1085
2N5578	01921	1854-0708	2N6678	01921	1854-0871	5082-3042	02062	1901-1119
2N5583	02037	1853-0293	2N6709	10881	1853-0573	5082-3080	02062	1901-0639
2N5679	02037	1853-0585	2N6709	02062	1854-0971	5082-3110	02062	1900-0099
2N5681	02037	1854-1062	2N6741	02037	1854-1122	5082-3141	02062	1900-0228
2N5684	02037	1853-0428	2N6837	02883	1855-0667	5082-3900	02062	1901-0875
2N5771	02037	1853-0540	2N7000	02037	1855-0727	5082-5232	02062	1901-0747
2N5836	02037	1854-1129	2N7002	02883	1855-0734	5082-5414	02062	1901-0517
2N5840	02237	1854-0751	2N7008	02237	1854-0005	5082-5507	02062	1901-0385
2N5875	02037	1853-0305	2N708	02037	1854-0009	5082-5509	02062	1901-0518
2N5876	02037	1853-0344	2N709	01698	1854-0289	5082-5541	02062	1901-1068
2N5877	02037	1854-0518	2N730	01979	1850-0075	5082-5580	02062	1901-1097
2N5878	02037	1854-0743	2N779A	06632	1850-0441	50L200	02158	1901-0738
2N5880	02037	1853-0053	2N779A	02037	1854-0010	50SQ080	03038	1901-1267
2N5880	02037	1853-0407	2N834	02037	1854-0011	5KPS 0A	03287	1901-1211
2N5883	02037	1853-0425	2N835	0237	1854-0021	5KPF75A	03287	1901-1284
2N5884	02037	1853-0340	2N918	06632	1850-0099	5M172S2	02037	1902-0918
2N5885	02037	1854-0679	2N964	01979	1850-0137	5M18ZS2	02037	1902-0919
2N5886	02037	1854-0697	2N976	00039	1853-0624	5M23ZS2	02037	1902-0981
2N5905	02883	1855-0400	2S11151	10646	1853-0710	5M28ZS2	02037	1902-0982
2N5911/D	03714	1855-0661	2S11186	00039	1853-0629	5M30ZS2	02037	1902-0980
2N5912	03406	1855-0213	2S11220	00039	1853-0588	60CQC045	03038	1906-0374
2N5912	03285	1855-0507	2S11227	00039	1853-0632	673-2	00046	1906-0035
2N5912ZHP	02883	1855-0669	2S11227A	00039	1853-0622	698-1	00046	1906-0090
2N5943	02037	1854-0597	2S11302	06354	1853-0621	72006	04550	1853-0479
2N5943 (SEL)	02037	1854-1007	2S11302	03334	1853-0636	80SQ030	03038	1901-0921
2N5949	03406	1855-0258	2S11302	00039	1853-0633	95-4492	03038	1906-0250
2N5954	01921	1853-0277	2S11007	00746	1853-0674	A114A	01973	1901-0690

Transistor/Diode Cross Reference – JEDEC No. to HP P/N

JEDEC	Mfr.	HP P/N	JEDEC	Mfr.	HP P/N	JEDEC	Mfr.	HP P/N
A114A	04550	1901-1092	BFR93R	03334	1854-1243	BZX84C75	03334	1902-1580
A114D	04550	1901-0696	BFR94	03334	1854-1036	BZX84C75	02037	1902-1512
A115A	01973	1901-0691	BFR95	03334	1854-0721	BZXB7V5	10818	1902-3129
A115F	04550	1901-1091	BFR96	02037	1854-1049	C7254	03811	1858-0081
A115M	01973	1901-0879	BFR90	02037	1854-0972	CA3018	01921	1820-0352
A14B	01973	1901-0327	BFT46	03334	1855-0640	CA3019	01921	1901-0557
A14D	01973	1901-0328	BFT92	03334	1853-0616	CA3026	01921	1820-0240
A14M	04550	1901-0329	BFT92R	03334	1853-0717	CA3045	01921	1821-0002
A14N	01973	1901-0330	BFT93	03334	1853-0612	CA3045H	01921	1858-0064
A14P	01973	1901-0532	BFT93	06121	1853-0698	CA3046	01921	1821-0001
A15A	01973	1901-0673	BFX89	03334	1854-0723	CA3049	01921	1858-0004
A15BX107	11981	1901-0968	BFY90	02037	1854-1063	CA3081E	01921	1858-0023
A15F	04550	1901-0754	BR102	12810	1906-0377	CA3082E	01921	1858-0048
A211	03334	1854-0435	BS170	02883	1855-0668	CA3082F	01921	1858-0057
A2S097	04507	1901-0531	BS170	02037	1855-0696	CA3083	01921	1858-0021
A2S832	04507	1900-0092	BSR33	03334	1853-0688	CA3083E	04550	1858-0142
A2X1501	04507	1901-1107	BSR43	03334	1854-1206	CA3096E	01921	1858-0118
A2X2118	04507	1900-0043	BSR60	03334	1853-0712	CA3097E	01921	1858-0046
A360A	03334	1854-1164	BSS123	06121	1855-0750	CA3102E	01921	1858-0063
A400 (SEL)	03334	1854-1120	BSS84	06121	1855-0768	CA3127E	01921	1858-0040
A440	03334	1853-0553	BSS87	06121	1855-0761	CA3127M	04550	1858-0135
AHS021 SELECTED	02865	1901-1132	BSS88	06121	1855-0779	CA3146E	01921	1858-0032
AX665	04507	1900-0034	BSS88	03334	1853-0687	CA3183E	01921	1858-0096
AS5092 SELECTED	04507	1900-0036	BST39	03334	1854-1203	CA3227E	04550	1858-0133
AS74260	01698	1853-0404	BST82	05946	1855-0744	CA3227E	03799	1858-0144
ASX1046	04507	1900-0042	BU406	02037	1854-1006	CA3246E	04550	1858-0140
AD814	03285	1854-0619	BU426	02037	1854-1157	CA3246M	03799	1858-0146
AD821 (SPEC)	03285	1858-0036	BU505	03334	1854-1254	CBR10F-010P	11699	1906-0368
AT-14400	03291	1854-1144	BU508A	02037	1854-1005	CBR10F-010	11699	1906-0051
AT-14435-5	03291	1854-1067	BU807	02037	1854-1165	CD36191	02763	1902-0121
AT-60586	03291	1854-1209	BUK456-800A	03334	1855-0679	CEN611	11699	1901-1277
AT-8160	03291	1855-0720	BUS-12A	03334	1854-0780	CEN662	11699	1901-1287
ATF-20135	03291	1855-0808	BUS11	06023	1854-0665	CEN672	11699	1854-0529
BA220	03334	1901-0022	BUS11A	03334	1854-1183	CG75L	04504	1901-1325
BA482	03334	1901-1253	BUS12	03334	1854-1182	CH4106-25-1%	02688	1902-0903
BA483	03334	1901-1134	BUM11A	02037	1854-1166	CH4627-25-1%	02688	1902-1322
BAL 74	10881	1901-1114	BUM12A	03334	1854-1019	CL4720	02883	1902-1295
BAR42	11708	1901-1254	BUX82	06023	1854-0891	CLA3132-86	02865	1900-0046
BAS 40-04	06121	1906-0320	BUZ 15	06121	1855-0523	CP4071	00746	1854-0071
BAS 40-05	06121	1901-1264	BUZ10	06121	1855-0553	CPY203E	03038	1855-0822
BAS16	02237	1901-1227	BUZ10H	06121	1855-0671	CSB7002-05-150-801	02865	1900-0246
BAS17	03334	1902-1556	BUZ11	03334	1855-0645	CSB7201-01	02865	1900-0068
BAS19	03334	1901-1150	BUZ24	06121	1855-0539	CT-1058	04200	1854-0810
BAS31	03334	1906-0365	BUZ71A	06121	1855-0548	D1561CE	02688	1901-0536
BAS40	06121	1901-1305	BUZ71A	06121	1855-0568	D40D4	02037	1854-1086
BAS40-06	06121	1906-0332	BUZ90	06121	1855-0766	D40N1	03406	1854-1237
BAS45	03334	1901-1344	BY 205-100	01698	1901-0837	D41D4	02037	1853-0595
BAS56	03334	1906-0337	BY205-400	01698	1901-0835	D42C11N	04550	1854-0998
BAS70-04	06121	1906-0331	BY505	03334	1901-1308	D44H11	04550	1854-0872
BAT17	03334	1901-1151	BYD33D	03334	1901-1198	D44H5	04550	1854-0635
BAT54	03334	1901-1320	BYD33M	03334	1901-1246	D45H11	04550	1853-0497
BAT83	03334	1901-1279	BYP59-300	03334	1901-0887	D45H2	04550	1853-0472
BAT85	03334	1901-1183	BYV26C SELECTED	03334	1901-1230	D45H5	04550	1853-0494
BAV10 SELECTED	03334	1901-1164	BYV27-100	06002	1901-1118	D471AR	02688	1901-0660
BAV23S	03334	1901-1269	BYV27-150	03334	1901-1112	D505AC	02688	1901-0686
BAV70	02037	1901-1144	BYV27-200	03334	1901-1141	D583CG	02688	1901-0655
BAV74 SELECTED	03334	1901-1224	BYV32-150	03334	1906-0296	D5848	02865	1906-0244
BAV99	03334	1906-0303	BYV36C	03334	1901-1223	DA155N	03287	1901-1315
BAW78B	06121	1901-1345	BYV36E	03334	1901-1249	DAN601	00746	1906-0293
BC321C-18	02237	1853-0366	BYV95C	07766	1901-1138	DDC 4565-96	02865	1901-0985
BC415C	06121	1853-0703	BYW29-150	03334	1901-1293	DDC4565D	02865	1900-0053
BC636	02037	1853-0692	BYW29-200AC	02037	1901-1272	DDC4582D	02865	1900-0056
BCF70	03334	1853-0599	BYW29-50	03334	1901-0858	DE111	04550	1901-0905
BCW65C	02037	1854-1150	BYW80-100	10881	1901-1126	DE131	04550	1901-1255
BCX18	10881	1853-0545	BZV47C5V6	04078	1902-1582	DF01	02713	1906-0284
BCX20	10881	1854-0987	BZV49-C12	03334	1902-1568	DF04	02713	1906-0283
BCX53AH	03334	1853-0691	BZV861V4	03334	1901-1278	DF04M	04504	1906-0069
BCX56BH	03334	1854-1208	BZV85-56B	11708	1902-1523	DF06M	02713	1906-0306
BCY 57/LV2345	03334	1854-0307	BZX75-C2V1	03334	1901-1160	DME6553	02865	1900-0062
BD139	02037	1854-0805	BZX83A5V1	02037	1902-1374	DME6569	02865	1900-0030
BD140	03334	1853-0690	BZX84-B13	03334	1902-1548	DMF5835A	02865	1900-0061
BD415	02037	1854-1004	BZX84-B18	03334	1902-1549	DMF5848	02865	1906-0294
BD416	02037	1853-0557	BZX84-B20	03334	1902-1550	DMJ4705 SELECTED	02865	1900-0031
BD435	02037	1854-1121	BZX84-B24	03334	1902-1588	DMJ4708	02865	1906-0279
BF258	01698	1854-0621	BZX84-B2V7	03334	1902-1563	DMJ4768	02865	1900-0059
BF511	03334	1855-0807	BZX84-B30	03334	1902-1591	DN2094	02883	1855-0659
BF569	03334	1853-0611	BZX84-B4V3	03334	1902-1562	DPAD 100	02883	1906-0100
BF980	03334	1855-0666	BZX84-B75	03334	1902-1589	DPAD10	02883	1906-0282
BFQ-32	03334	1853-0527	BZX84-C12	03334	1902-1487	DPAD10	02883	1906-0325
BFQ19	03334	1854-1054	BZX84-C15	03334	1902-1572	DSG 6474-44	02865	1900-0032
BFQ23C	05946	1853-0672	BZX84-C24	03334	1902-1564	DSR3700X	04507	1901-1116
BFQ34	03334	1854-0942	BZX84-C24	03334	1902-1570	DSR3800X	04507	1901-1115
BFQ51	03334	1853-0544	BZR5500X	03334	1902-1519	DSR5500X	04507	1901-0893
BFQ65	03334	1854-1234	BZX84-C43	03334	1902-1590	DT790107A	02688	1902-0692
BFR 36	06592	1854-0868	BZX84-C4V7	03334	1902-1565	DTS-802	10674	1854-0705
BFR90	03334	1854-0591	BZX84-C68	03334	1902-1595	DTS413	05840	1854-0086
BFR90	11021	1854-0716	BZX84C10	03334	1902-1544	DZ70302N	02688	1902-0570
BFR91	03334	1854-0632	BZX84C11	05942	1902-1558	E107	02883	1855-0280
BFR91A	03334	1854-1050	BZX84C3V3	03334	1902-1541	E111	02883	1855-0206
BFR92	10881	1854-0986	BZX84C3V6	03334	1902-1543	E232	02883	1855-0274
BFR92 (SELECTED)	03334	1854-1045	BZX84C5V1	03334	1902-1592	ED6240	05131	1901-0591
BFR92R	03334	1854-1247	BZX84C5V6	10881	1902-1424	EGP30B	02713	1901-1147
BFR93	03334	1854-1055	BZX84C6V2	03334	1902-1542	F54011A	03406	1855-0693
BFR93A	06121	1854-1217	BZX84C6V8	03334	1902-1574	FD777	02237	1901-0179

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JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N
FDH-400	02237	1901-0096	IRF520	03038	1855-0461	KBPC-W35-04 (SELECTED)	02713	1906-0281
FDH444	02237	1901-1067	IRF521	03038	1855-0581	KBPC-W35-06	02713	1906-0305
FDS01203	02237	1906-0358	IRF521	03038	1855-0622	KBPC108	04504	1906-0356
FDS01501	02237	1901-1261	IRF523	03038	1855-0572	KBPC12-02-W	02713	1906-0272
FDS01503	02237	1906-0334	IRF523	03038	1855-0586	KBPC1202P-1	04504	1906-0043
FDS01505	02237	1906-0359	IRF530	03038	1855-0492	KBPC25005P-11	04504	1901-0525
FDS01703	03406	1906-0387	IRF533	03038	1855-0592	KBPC35-02	04504	1906-0348
FE16F	02713	1901-1143	IRF540	02037	1855-0670	KBPC3506	04504	1906-0389
FE6B	04504	1901-1273	IRF540 (SEL)	02037	1855-0590	KBPC602	04504	1906-0349
FEN16CT7	02713	1906-0308	IRF610	03038	1855-0488	KBPC606	02713	1906-0255
FEP16BT	04504	1906-0357	IRF612	03038	1855-0641	KBU4G	02713	1906-0201
FEP16GT-3	02713	1906-0295	IRF630	03038	1855-0504	KBU8B	04504	1906-0343
FES8GT	02713	1901-1140	IRF640	03038	1855-0524	L6210	04078	1906-0364
FN2645	02883	1855-0395	IRF740	03038	1855-0631	LCET.0	03287	1901-1210
FP1047A	05027	1901-1326	IRF830	03038	1855-0510	LL4148	04486	1901-1162
FSA2509P	02237	1906-0339	IRF9130	03038	1855-0484	LL4733A	04486	1902-1491
FSA2565P	02237	1906-0324	IRF9513	03038	1855-0588	LL4740A	04486	1902-1490
FSA2619P	02237	1906-0257	IRF9520	03038	1855-0509	LL4742A	04486	1902-1492
FSA3157P	02237	1906-0074	IRF9521	03038	1855-0587	LL4744A	04486	1902-1489
FSA3237P	02237	1906-0315	IRF9530	03038	1855-0493	LL4747A	04486	1902-1488
FT5754M	12010	1858-0115	IRF9531	03038	1855-0499	LL5248	02037	1902-1462
FT5755M	12010	1858-0109	IRF9532	03038	1855-0517	LM-394BH	03406	1854-0826
G6R110H	02158	1901-0739	IRF9Z20	03038	1855-0726	LM103-2.4	03406	1820-0225
GES3416	04550	1854-0978	IRF9Z30	03038	1855-0812	LM103-3.0	03406	1902-1406
GI250-3	02713	1901-0490	IRFAC32	03038	1855-0802	LM114AH	03406	1854-0646
GP10Y	04504	1901-1260	IRFBC42-003	03038	1855-0786	LM3018AH	03406	1858-0045
GP30B	02713	1901-1135	IRFEE20	03038	1855-0777	LM3046M	03406	1858-0123
GX55220A	03287	1854-0869	IRFEE20-003	03038	1855-0781	LM3146M	03406	1858-0145
H1601-1.5	05088	1901-1251	IRFD110	03038	1855-0502	LM394	03406	1854-0830
H1651-12	05088	1901-1197	IRFD110	03038	1855-0518	LM394BN	03406	1854-1199
H2745-9	05088	1901-0974	IRFD113	03038	1855-0520	LS352	13127	1853-0316
H617	05088	1901-0768	IRFD120	02883	1855-0709	LT1839-1	04507	1854-1029
HI3-0302-5	03171	1901-0001	IRFD123	02883	1855-0729	LT5239	04507	1853-0583
HMF-0310-100	03799	1855-0719	IRFD210	03038	1855-0712	LVA 456A	04507	1902-1352
HMF-0620	03799	1855-0714	IRFD420	03038	1855-0551	LVA43A	04507	1902-0906
HP-4	05176	1854-0747	IRFD9020	03038	1855-0832	LVA56A	04507	1902-0905
HPND-0001	02062	1901-1317	IRFD9120	03038	1855-0500	LVA68A	04507	1902-0907
HPND-4028	02062	1900-0249	IRFD9120	03038	1855-0522	M100	02883	1855-0427
HSCH-1001	02062	1901-0841	IRFD9123	03038	1855-0567	M2X1282	08852	1900-0223
HSCH-3486	02062	1901-0883	IRFD9210	03038	1855-0711	M2X1527	08852	1900-0232
HSCH-5312	02062	1900-0071	IRFF123	02883	1855-0580	M2X1569	08852	1900-0234
HSCH-5316	02062	1901-1102	IRFF131	03038	1855-0646	M2X1577	08852	1900-0236
HSCH-5330	02062	1900-0206	IRFF210	03038	1855-0521	M2X1625	08852	1900-0241
HSCH-5336 (SELECTED)	02062	1900-0076	IRFF9131	03038	1855-0797	M4X1055	08852	1900-0226
HSCH-5510	02062	1900-0035	IRFP140	03038	1855-0755	M5911	02883	1855-0739
HSCH-5512	02062	1900-0070	IRFP150	03038	1855-0792	M5X1365	02885	1900-0247
HSCH-6332	02062	1900-0065	IRFP250	04550	1855-0691	MA-40035	02788	1900-0041
HSCH-9101	02062	1900-0251	IRFP450	03038	1855-0682	MA-4E402L	02788	1900-0040
HSMF-3830-T30	02062	1900-0096	IRFP9140	03038	1855-0756	MA-4P203-287	05695	1900-0047
HSMF3800	02062	1900-0100	IRFPFF40	03038	1855-0833	MA4E202L	02788	1906-0285
HSMF-0002	02062	1901-1247	IRFR010	03038	1855-0773	MA4P485	02788	1900-0045
HSMF-0003	02062	1900-0240	IRFR020	03038	1855-0811	MA4P550	02788	1900-0201
HSMF-2800	02062	1900-0078	IRFR110	03038	1855-0732	MAD1108P	02037	1906-0344
HSMF-2805	02062	1900-0245	IRFR120	03038	1855-0759	MAD130P	02037	1906-0312
HSMF-2808	02062	1900-0205	IRFR210	03038	1855-0749	MAT-01GH	02180	1854-0712
HSMF-2812	02062	1900-0091	IRFR9010	03038	1855-0810	MAT-02EH	02180	1854-1181
HSMF-2813	02062	1900-0220	IRFR9020	03038	1855-0748	MAT-02FH	02180	1854-1109
HSMF-2814 #T31	02062	1900-0239	IRFR9120	03038	1855-0758	MAT04EY	02180	1858-0138
HSMF-2818-#8	02062	1900-0221	IRFR9210	03038	1855-0774	MAT04FP	02180	1858-0110
HSMF-2822	02062	1900-0217	IRFZ22	03038	1855-0683	MB106	02537	1906-0369
HSMF-2823	02062	1900-0224	IRFZ40	03038	1855-0694	MB351	12810	1906-0391
HSMF-2825	02062	1900-0202	IRLZ34	03038	1855-0815	MBAV70	02037	1906-0336
HSMF2810	02062	1900-0074	IT110	03714	1855-0406	MBAV74	02037	1906-0335
HSMF2820	02062	1900-0072	IT110	03714	1855-0625	MBAV99	02037	1906-0290
HSMF2824	02062	1900-0216	IT120A-T071	03714	1854-0957	MBAW56	02037	1901-1145
HXTR-2101	02062	1854-0863	IT130-T071	03714	1853-0635	MBAW56	02037	1900-0250
HXTR-3001	02062	1854-1238	IT1700	03714	1855-0098	MBD201	02037	1901-1213
HXTR-3101	02062	1854-0944	IT1750	03714	1855-0535	MBD501	02037	1901-1078
HXTR-3102	02062	1854-1093	ITS00	03714	1855-0434	MBD5300	02037	1901-0661
HXTR-3675	02062	1854-1033	ITS1015 (SEL)	03714	1854-0992	MBD5550A	02037	1901-0760
HXTR-5002	02062	1854-0825	ITS4066	01973	1855-0442	MBI-101	02037	1901-0860
HXTR-5002	02062	1854-0862	ITF600	04486	1901-0703	MBR-3535	02037	1901-1297
HXTR-5102	02062	1854-1123	IVN5001ANF	03714	1855-0431	MBR030	02037	1901-0986
HXTR-5104	02062	1854-0878	IVN5201TNF	03714	1855-0489	MBR1060	02037	1906-0276
HXTR-6105	02062	1854-0864	J107	02883	1855-0445	MBR1535CT	02037	1901-1095
IC914	02037	1901-1285	J108	03406	1855-0424	MBR1540	02037	1901-1152
ICTE-12	03287	1902-0941	J112	02883	1855-0446	MBR1645	02037	1906-0307
ID101	03714	1906-0268	J175	02883	1855-0574	MBR20045CT	02037	1906-0286
IH401A	03714	1858-0066	J177	02883	1855-0289	MBR2035CT	02037	1906-0292
IN4690	02037	1902-1431	J2472	02883	1855-0298	MBR2545CT	02037	1906-0267
IN5365B	02037	1902-1345	J270	03406	1855-0437	MBR3035CT	02037	1906-0265
IR5062	03038	1854-0804	J2976 TR-6	02883	1855-0793	MBR3045PT	02037	1906-0360
IRC530	03038	1855-0735	J304	03406	1855-0425	MBR340	02037	1901-1303
IRF045	03038	1855-0775	J304 (SEL)	03406	1855-0554	MBR340P	02037	1901-0877
IRF120	03038	1855-0531	J309	02883	1855-0268	MBR3545	02037	1901-0912
IRF130	03038	1855-0494	JAN TXV IN825	02037	1902-0973	MBR745	02037	1901-1173
IRF140	02037	1855-0618	JAN TXV 2N2222A	02037	1854-0829	MBRD320	02037	1901-1257
IRF150	03038	1855-0508	JANTX1N750A	02237	1902-0697	MBRD330	02037	1901-1268
IRF250	03038	1855-0562	JANTXV IN4148-1	02237	1901-1101	MBRD350	02037	1901-1283
IRF431	03038	1855-0454	JANTXV2N3251A	02037	1853-0477	MBRD650CT	02037	1906-0367
IRF440	03038	1855-0536	JPAD20	02883	1901-1181	MBRL030-T1	02037	1901-1204
IRF510	03038	1855-0561	JTX2907A	02037	1853-0290	MBRS140T3	02037	1901-1332
IRF512	03038	1855-0549	KBP06	02713	1906-0233	MC1107P	02037	1906-0229
IRF513	03038	1855-0589	KBL08	04504	1906-0366	MC1411	02037	1858-0089

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JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N
MC3346D	02037	1858-0131	MJE2361-T	02037	1854-0749	MMBF5459	03406	1855-0753
MD1130	02037	1853-0529	MJE241	02037	1854-0808	MMBF5460L	02037	1855-0828
MD1132	02037	1854-1035	MJE243	02037	1854-0794	MMBFJ175	03406	1855-0731
MD2252	02037	1854-0222	MJE244	02037	1854-0754	MMBFJ176	03406	1855-0746
MD2369A	02037	1854-1016	MJE251	02037	1853-0458	MMBFU310	02037	1855-0681
MD4260	02037	1853-0589	MJE253	02037	1853-0447	MMBR4957	02037	1853-0620
MD6002	02037	1853-0663	MJE2801K	02037	1854-0640	MMBR5031	02037	1854-1201
MD918A	02037	1854-1010	MJE2801T	02037	1854-0819	MMBR5179	02037	1854-1083
MDA 990-3	02037	1906-0017	MJE2901T	02037	1853-0547	MMBR536	02037	1853-0705
MDA-104	02037	1906-0094	MJE3302	02037	1854-0886	MMBR571	02037	1854-1246
MDA202G	02037	1906-0096	MJE371K	02037	1853-0369	MMBR901	02037	1854-1108
MDA202G	02037	1906-0351	MJE371K	02037	1853-0634	MMBR920	02037	1854-1231
MDA208	02037	1906-0219	MJE371K (SELECTED)	02037	1853-0450	MMBR931	02037	1854-1027
MDA2500	02037	1906-0008	MJE5191	02037	1854-0682	MMBT2222A	02037	1854-1053
MDA2502	02037	1906-0007	MJE5192	02037	1854-0654	MMBT2369	02037	1854-1095
MDA2504	02037	1906-0222	MJE5195	02037	1853-0372	MMBT2907A	02037	1853-0525
MDA2506	02037	1906-0016	MJE521K	02037	1854-0653	MMBT3640	02037	1853-0706
MDA2506	02037	1906-0224	MJE521K	02037	1854-1127	MMBT3904	02037	1854-1037
MDA3500	02037	1906-0221	MJE5657	02037	1854-0736	MMBT3906	02037	1853-0567
MDA3501	02037	1906-0093	MJE5740	02037	1854-1204	MMBT4124T1	02037	1854-1138
MDA3502	02037	1906-0266	MJE5850	02037	1853-0584	MMBT4126	02037	1853-0645
MDA3504	02037	1906-0212	MJE5852	02037	1853-0657	MMBT4260	02037	1853-0637
MDA3506	02037	1906-0217	MJE6043	02037	1854-0879	MMBT4401	03406	1854-1188
MDA920A5	02037	1901-0365	MJE700	02037	1853-0347	MMBT4403	02037	1853-0580
MDA922-3	02037	1906-0028	MJE701	02037	1853-0364	MMBT5087	02037	1853-0568
MDA922-6	02037	1906-0027	MJE800	02037	1854-0581	MMBT5088T1	02037	1854-1137
MDA970A2	02037	1901-0638	MJE800	02037	1854-0633	MMBT5401	02037	1853-0581
MDA970A2	02037	1906-0258	MJE802	02037	1854-0626	MMBT5550	02037	1854-1052
MDA980-3	02037	1906-0032	MJE8501	02037	1854-1223	MMBT5551L	02037	1854-1248
MDA980-6	02037	1906-0049	MJH16010A	02037	1854-1219	MMBT6429	02037	1854-1014
MDA990-2	02037	1906-0058	MJH16012	02037	1854-1222	MMBT918	02037	1854-0929
MD600	02037	1853-0539	MLL4003T1	02037	1901-1161	MMBT918	02037	1854-1200
MFE3004	02037	1855-0272	MLL5221	02037	1902-1441	MMBT918	02037	1853-0566
MFE930	02037	1855-0754	MLL5223	02037	1902-1442	MMBT918	02037	1853-0684
MFRQ60C	02037	1855-0651	MLL5225	02037	1902-1443	MMBT918	02037	1854-1148
MFR961	02037	1854-0980	MLL5226	02037	1902-1444	MMBT924	02037	1854-1102
MHQ2221	02037	1858-0009	MLL5227	02037	1902-1445	MMBT821	02037	1853-0516
MHQ918	02037	1858-0094	MLL5228	02037	1902-1446	MMBV3401	02037	1901-1180
MJ10006	02037	1854-0948	MLL5229	02037	1902-1447	MMBV3401	02037	1901-1192
MJ11012	02037	1854-0845	MLL5230	02037	1902-1448	MMBZ5230	02037	1902-1524
MJ11015	02037	1853-0501	MLL5231	02037	1902-1449	MMBZ5231	02037	1902-1501
MJ11016	02037	1854-0887	MLL5232	02037	1902-1450	MMBZ5232B	02037	1902-1436
MJ11021	02037	1853-0524	MLL5234	02037	1902-1451	MMBZ5232B	02037	1902-1555
MJ12003	02037	1854-0941	MLL5235	02037	1902-1452	MMBZ5234B	02037	1902-1567
MJ12004	02037	1854-0964	MLL5236	02037	1902-1453	MMBZ5237B1	02037	1902-1559
MJ12005	02037	1854-0969	MLL5237	02037	1902-1454	MMBZ5241B	02037	1902-1437
MJ12005 (SELECTED)	02037	1854-0983	MLL5239B	02037	1902-1455	MMBZ5257B	02037	1902-1535
MJ12010	02037	1854-0906	MLL5240	02037	1902-1456	MMCS2369	02037	1854-0752
MJ13091	02037	1854-1060	MLL5241	02037	1902-1457	MMD7000	02037	1906-0026
MJ14000	02037	1854-1056	MLL5242	02037	1902-1458	MMD830-E20	08852	1900-0050
MJ15003	02037	1854-0989	MLL5243	02037	1902-1459	MMD830-E20 SELECTED	08852	1900-0080
MJ16002 (SELECTED)	02037	1854-0984	MLL5245	02037	1902-1460	MMFQ-3906	02037	1858-0114
MJ16012	02037	1854-1015	MLL5246	02037	1902-1461	MMFQ2222A	02037	1858-0112
MJ16018	02037	1854-1071	MLL5250	02037	1902-1463	MMFQ2369	02037	1858-0113
MJ2500	02037	1853-0387	MLL5251	02037	1902-1464	MMFQ2907A	02037	1858-0113
MJ3000	02037	1854-0618	MLL5252	02037	1902-1465	MMFQ3799	02037	1858-0122
MJ3772	02037	1854-0589	MLL5254	02037	1902-1466	MMFQ3904	02037	1858-0120
MJ4035	02037	1854-0707	MLL5256	02037	1902-1467	MMFQ6001	02037	1858-0129
MJ4645	02037	1853-0348	MLL5257	02037	1902-1468	MMFQ6700	02037	1858-0139
MJ6503	02037	1853-0713	MLL5258	02037	1902-1469	MMT3960A	02037	1854-0587
MJ8505	02037	1854-0965	MLL5259	02037	1902-1470	MF312-78-69	07050	1854-1046
MJD112	02037	1854-1190	MLL5260	02037	1902-1471	MF318-52-62	07050	1854-0753
MJD117	02037	1853-0643	MLL5261	02037	1902-1472	MP833-1004	07050	1855-0515
MJD122	02037	1854-1215	MLL5262	02037	1902-1473	MPD200	01973	1901-0866
MJD127	02037	1853-0697	MLL5263	02037	1902-1474	MPD400	01973	1901-1034
MJD350	02037	1853-0701	MLL5265	02037	1902-1475	MPF6660	02037	1855-0675
MJD42C	02037	1853-0704	MLL5266	02037	1902-1476	MPF960	02037	1855-0594
MJD44H11	02037	1854-1173	MLL5267	02037	1902-1477	MPN3401	02037	1901-0844
MJD44H11-1	02037	1854-1236	MLL5268	02037	1902-1478	MPN3404 RLRA	02037	1901-1298
MJD45H11	02037	1853-0655	MLL5270	02037	1902-1479	MPN3500	02037	1901-0975
MJD45H11-1	02037	1853-0711	MM3007	02037	1854-1255	MPQ2222P	02037	1858-0077
MJD47	02037	1854-1172	MM3904	02037	1854-0883	MPQ2369	02037	1858-0055
MJE 210	02037	1853-0398	MM3906	02037	1853-0276	MPQ2369	02037	1858-0100
MJE 2370	02037	1853-0394	MM4018	02037	1853-0440	MPQ2484	02037	1858-0091
MJE 253	02037	1853-0417	MM4032	02037	1853-0489	MPQ2906	02037	1858-0010
MJE-13009	02037	1854-0827	MM4645	02037	1853-0308	MPQ2907P	02037	1858-0076
MJE1090	02037	1853-0334	MM5262	02037	1854-0802	MPQ3546	02037	1858-0075
MJE1091	02037	1853-0332	MM8001	02037	1854-0580	MPQ3725	02037	1858-0034
MJE12007	02037	1854-0847	MM8006	02037	1854-0540	MPQ3762	02037	1858-0062
MJE13003	02037	1854-0996	MMAD1107	02037	1906-0375	MPQ3799	02037	1858-0071
MJE13005	02037	1854-1134	MMAD1108	02037	1906-0382	MPQ3799	02037	1858-0092
MJE15030	02037	1854-0920	MMAD1130	02037	1906-0378	MPQ3799-2	02037	1858-0111
MJE15030	02037	1854-1161	MMBC1321Q5	02037	1854-1020	MPQ3904	02037	1858-0087
MJE15031	02037	1853-0652	MMBD0101L	02037	1900-0037	MPQ3906	02037	1858-0058
MJE1661	02037	1854-0768	MMBD352	02037	1900-0039	MPQ6002	02037	1858-0090
MJE170	02037	1853-0436	MMBD501	02037	1901-1343	MPQ6100	02037	1858-0074
MJE172	02037	1853-0341	MMBD6050	02037	1901-1142	MPQ6426	02037	1858-0102
MJE180	02037	1854-0659	MMBD7000	02037	1906-0298	MPQ6700	02037	1858-0086
MJE182	02037	1854-0585	MMBD914XT1	02037	1901-1228	MPQ6842	02037	1820-1804
MJE200	02037	1854-0739	MMBF4391	02037	1855-0680	MPQ7041	02037	1858-0107
MJE2100	02037	1854-0701	MMBF4392	03406	1855-0752	MPQ7051	02037	1858-0106
MJE2102	02037	1854-0647	MMBF4393	02037	1855-0715	MPQ7091	02037	1858-0088
MJE220	02037	1854-0735	MMBF4393 (SEL)	02037	1855-0695	MPS 6523	02037	1853-0043
MJE223	02037	1854-0692	MMBF4416	02037	1855-0799	MPS A12	02037	1854-0560
MJE233	02037	1853-0367	MMBF4416L	02037	1855-0480	MPS A18	02037	1854-0691

Transistor/Diode Cross Reference – JEDEC No. to HP P/N

JEDEC	Mfr.	HP P/N	JEDEC	Mfr.	HP P/N	JEDEC	Mfr.	HP P/N
MPS U-10	02037	1854-0764	MR826	02037	1901-1256	MURS140T3	02037	1901-1335
MPS U-60	02037	1853-0423	MR850	02037	1901-0789	MX-2844	08852	1900-0082
MPS-N04A	02037	1853-0217	MR852	02037	1901-0692	MX-2860	08852	1900-0084
MPS-A14	02037	1854-0472	MR854	02037	1901-0719	MX1098	08852	1901-0977
MPS-A14	02037	1854-0977	MR856	02037	1901-1087	MX1735	08852	1900-0048
MPS-A17	02037	1854-0642	MR862R	02037	1901-1122	MX3141	08852	1900-0095
MPS-A18	02037	1854-0583	MR881R	02037	1901-1035	MX3785	08852	1900-0203
MPS-A42	02037	1854-0575	MRF0211	02037	1854-1221	MX3993	08852	1900-0207
MPS-A64	02037	1853-0416	MRF5211	02037	1853-0689	MXR5583	02037	1853-0610
MPS-A70	02037	1853-0395	MRF531 (SEL)	02037	1854-1168	MXR5943	02037	1854-1100
MPS-B17	02037	1854-0628	MRF544	02037	1854-1114	MXT2222A	02037	1854-1094
MPS-U01	02037	1854-0634	MRF545	02037	1853-0625	MXT2907A	02037	1853-0609
MPS-U02	02037	1854-0514	MRF5583	02037	1853-0718	MXT3904	02037	1854-1101
MPS-U02	02037	1854-0836	MRF571 (SEL)	02037	1854-1042	MXT3906	02037	1853-0613
MPS-U05	02037	1854-0817	MRF5711L	02037	1854-1125	MZ2361	02037	1901-1196
MPS-U07	02037	1854-0877	MRF580A	02037	1854-1143	MZ5556	02037	1902-0916
MPS-U45	02037	1854-0798	MRF581	02037	1854-1022	MZC10A5	02037	1902-1547
MPS-U51	02037	1853-0326	MRF581	02037	1854-1032	MZC12A5	02037	1902-1586
MPS-U52	02037	1853-0476	MRF581 (MOD)	02037	1854-1184	MZC4.7A10	02037	1902-1480
MPS-U55	02037	1853-0353	MRF581A	02037	1854-1225	MZC5.6B2	02037	1902-0990
MPS-U95	02037	1853-0449	MRF586	02037	1854-1175	MZC6.2A5	02037	1902-1581
MPS2222	02037	1854-1227	MRF587	02037	1854-1047	MZT4554B	02037	1902-1505
MPS2369	02037	1854-0979	MRF5943	02037	1854-1253	ND946	04200	1906-0092
MPS2907A	02037	1853-0626	MRF604	02037	1854-1159	NE-41635	00039	1854-1008
MPS3640	02037	1853-0244	MRF630	02037	1854-0990	NE02133L	00039	1854-1091
MPS3643	02037	1854-0492	MRF639	02037	1854-1228	NE02135	00039	1854-0946
MPS3646	02037	1854-0094	MRF670	02037	1854-1149	NE21935	00039	1854-1009
MPS3646	02037	1854-1141	MRF904	02037	1854-0890	NE21935	00039	1854-1044
MPS3866	02037	1854-1252	MRF911	02037	1854-1178	NE64535	00039	1854-1002
MPS4250A	02037	1853-0587	MRF9411	02037	1854-1226	NE68135	00039	1854-1111
MPS4356	02037	1853-0488	MRF962	02037	1854-1092	NE710-00 20-50MA	00039	1855-0795
MPS5179	02037	1854-0981	MRF965	02037	1854-1107	NE71000	00039	1855-0569
MPS571	02037	1854-1142	MRF965	02037	1854-1107	NE71084-06	00039	1855-0636
MPS6531	02037	1854-0730	MSD 6150	02037	1906-0042	NE71084-08	00039	1855-0770
MPS6534	02037	1853-0536	MSD6101	02037	1901-0358	NE720-00 (SELECTED)	00039	1855-0794
MPS6543	02037	1854-1140	MSD6101	02037	1906-0388	NE72084	00039	1855-0769
MPS6543 SELECTED	02037	1854-0296	MSD6150	02037	1901-0538	NE73416D	00039	1854-1066
MPS6562	02037	1853-0318	MSS-30, 254-B20	08852	1900-0075	NE800199	00039	1855-0637
MPS8098	02037	1854-0973	MSS-40, 155-E20	08852	1900-0054	NE85633	00039	1854-1089
MPS834	02037	1854-0866	MSS-40, 455-B40	08852	1900-0211	NE90115	00039	1853-0578
MPSA18RLRAL	02037	1854-1179	MSS40, 141-B10 SELECTED	08852	1900-0085	NEL2301-53	00039	1854-1170
MPSA27	02037	1854-1202	MSS50-248-B20	08852	1900-0227	NS3000	02619	1901-0663
MPSA44RLRAL	02037	1854-1167	MTD10M05E	02037	1855-1260	NS65098	03406	1853-0218
MPSA55	02037	1853-0608	MTD10M05E-1	02037	1855-0782	NSID529SF52064	03406	1855-0053
MPSA64-5	02037	1853-0716	MTD2955	02037	1855-0801	NSR8142	02537	1906-0227
MPSA65	02037	1853-0412	MTD3055EL	02037	1855-0800	P6KE18A	02037	1901-1327
MPSA76	02037	1853-0572	MTD4P05-1	02037	1855-0778	P6KE7.5CA	02037	1901-1304
MPSA92	02037	1853-0336	MTD4P06-1	02037	1855-0784	PAD5	02883	1901-0842
MPSH10	02037	1854-0795	MTD5N05-1	02037	1855-0776	PD60	05131	1906-0372
MPSH10	02037	1854-0993	MTH13N50	02037	1855-0787	PF5101 (SELECTED)	03406	1855-0529
MPSH10	02037	1854-1139	MTH25P06	02037	1855-0804	PIC900C	00046	1858-0095
MPSH54	02037	1853-0662	MTH8N60	02037	1855-0767	PK10	05131	1906-0203
MPSH81	02037	1853-0448	MTH10N10 SELECTED	02037	1855-0490	PML15231B	03334	1902-1587
MPSH81	02037	1853-0639	MTH10N15	02037	1855-0495	PN3563-5	03406	1854-0092
MPSW01	02037	1854-1064	MTH12N06	02037	1855-0593	PN4250	02237	1853-0664
MPSW06	02037	1854-0997	MTH15N50	02037	1855-0478	PN4250-18	02237	1853-0641
MPSW51	02037	1853-0660	MTH2N50	02037	1855-0814	PN4888-5	03406	1853-0456
MPSW55	02037	1853-0559	MTH2P50	02037	1855-0527	PU4220	08709	1858-0117
MPSW56	02037	1853-0552	MTH3N35	02037	1855-0705	EXT4401	03334	1854-1218
MPT2-15	03287	1901-1208	MTH6M00E	02037	1855-0697	EXT4403	03334	1853-0699
MPT2-15C	03287	1901-1209	MTP10N15L	02037	1855-0783	QFND-4313	02062	1901-1176
MR1-1400	02037	1901-0885	MTP10N25	02037	1855-0673	QFND-4414	02062	1901-0947
MR1033A	02037	1901-0411	MTP12N06	02037	1855-0542	QFND-4711	02062	1901-0776
MR1035A	02037	1901-0413	MTP12N20	02037	1855-0563	QFND-4746	02062	1901-0826
MR1120	02037	1901-0495	MTP12P05	02037	1855-0763	QFND-4965	02062	1901-0777
MR1121	02037	1901-0496	MTP15N05E	02037	1855-0660	QSCH-3825	02062	1901-1194
MR1121R	02037	1901-0592	MTP1N100	02037	1855-0664	QSCH-5362	02062	1900-0235
MR1122	02037	1901-0497	MTP20P06	02037	1855-0818	QSCH-5872	02062	1900-0077
MR1123	02037	1901-0498	MTP2N90	02037	1855-0497	QSCH-8809	02062	1906-0355
MR1123R	02037	1901-0630	MTP3055E	02037	1855-0725	QSCH1186	02062	1901-0895
MR1124	02037	1901-0499	MTP3055EL	02037	1855-0831	QSCH1187	02062	1901-0996
MR1125	02037	1901-0500	MTP3N60	02037	1855-0608	QSMS-0038	02062	1900-0213
MR1126	02037	1901-0551	MTP4N50	02037	1855-0607	QSRD-4652	02062	1901-0457
MR1128	02037	1901-0552	MTP5N40	02037	1855-0606	QSRD-4653	02062	1901-0189
MR2004S	02037	1901-0825	MUR105	02037	1901-1129	QSRD-4728	02062	1901-0802
MR2004SR	02037	1901-0824	MUR1100E	02037	1901-1318	QXTR-6999	02062	1854-0861
MR2400	02037	1901-0978	MUR1115	02037	1901-0970	QXTR-7037	02062	1854-1189
MR2401	02037	1901-1294	MUR120RL	02037	1901-1306	R3270	02688	1901-0325
MR2406	02037	1901-1121	MUR140	02037	1901-1244	R3710	02688	1901-0729
MR2406F	02037	1901-1137	MUR1510	02037	1901-1189	R711XE	05088	1906-0242
MR501	02037	1901-1081	MUR1560	02037	1901-1302	R712	05088	1906-0231
MR502	02037	1901-0870	MUR160	02037	1901-1214	R712A	05088	1906-0236
MR504	02037	1901-1000	MUR162OCT	02037	1906-0321	R712E	05088	1906-0088
MR508	02037	1901-0889	MUR162OCT OPTION TO220-C	02037	1906-0338	R712X	05088	1906-0271
MR510	02037	1901-0839	MUR164OCT	02037	1906-0373	R754	05088	1906-0067
MR751	02037	1901-0662	MUR302OPT	02037	1906-0329	RC60	05131	1901-0896
MR752	02037	1901-0788	MUR410	02037	1901-1239	RCA9212A	01921	1855-0512
MR754	02037	1901-0767	MUR4100	02037	1901-1233	RCP-703C	01921	1854-0639
MR754	02037	1901-0781	MUR415	02037	1901-1216	RDF06M	04504	1906-0362
MR756	02037	1901-0787	MUR460	02037	1901-1199	RFL1N08L	01921	1855-0595
MR758	02037	1901-1188	MUR860	02037	1901-1130	RFL1N08L	01921	1855-0619
MR818	02037	1901-1148	MUR880E	02037	1901-1300	RFM10N12	01921	1855-0672
MR820	02037	1901-1086	MURC115	02037	1901-1169	RFP10N12	01921	1855-0565
MR822RL	02037	1901-0685	MURD61OCT	02037	1906-0352	RFP10N15	01921	1855-0676

Transistor/Diode Cross Reference – JEDEC No. to HP P/N

JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N	JEDEC	Mfr.	HPP/N
HFP10P15	01921	1855-0674	SSM-2210S	02180	1854-1251	UES2605	00046	1906-0277
RFP12N08	01921	1855-0677	SST177	02883	1855-0733	UES601R	00046	1901-0953
RFP15N05L	01921	1855-0629	SST215	02883	1855-0825	UES803	00046	1901-1127
RFP2N08L	01921	1855-0678	SST5461	02883	1855-0785	UES803R	00046	1901-0961
RFP2N08L-6261	03799	1855-0821	SST5912	02883	1855-0823	UES804	00046	1901-0904
RFP2N12L	01921	1855-0665	SSTPAD200	02883	1901-1266	UF4004	02713	1901-1149
RFP4N06L	01921	1855-0708	ST3011	06632	1854-0690	UF4007	04504	1901-1313
RFP5P12	01921	1855-0623	STB523-A	01973	1901-0460	UF5406	04504	1901-1274
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Important Notice about Service Notes

Service notes contain product-specific service information for Hewlett-Packard's electronic products. Subjects include product improvements, modifications, and procedures for troubleshooting, maintenance, and repair. Service Notes are published as ap-

propriate throughout the life of a product. All new notes are announced in *Bench Briefs*.

Please note that Hewlett-Packard has restructured the procedure for handling and distributing instrument-related service notes through *Bench Briefs* and the microfiche program.

Bench Briefs

If you want to order a service note, refer to the list of service notes in the index, find the service note number belonging to the product you are interested in, and note the package number. Use the form on the last page of *Bench Briefs* to order the number that appears in the "service note package" column. You will receive a pack-

age of service notes that includes the one you ordered.

Microfiche

Service notes are still available on microfiche. The part numbers are:

Library	5951-6511
Update service	5951-6517

Please note that automatic shipments of the update service will no longer be made. If you want to continue to receive quarterly updates to the microfiche library, you must place a new order during the first month of each quarter (May, August, November, February). Note that inventory will be purged at the end of each quarter.

Contact your local HP sales/service office for more information. □

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