

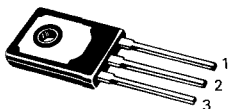
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*Consult Motorola if a direct replacement is necessary.

TABLE 8 — PLASTIC TO-225 Type (Formerly TO-127 Type)†

STYLE 2:
PIN 1. EMITTER
2. COLLECTOR
3. BASE



CASE 90-05 (TO-225AB)

I _C Cont Amps Max	V _{CEO(sus)} Volts Min	Device Type		h _{FE} Min/Max	@ I _C Amp	Resistive Switching			f _T MHz Min	P _D (Case) Watts @ 25°C
						t _s μs Max	t _f μs Max	@ I _C Amp		
		NPN	PNP							
5	50		MJE105	25/100	2					65
	60	MJE1100## MJE1101##	MJE1090##	750 min 750 min	3A 4A				1 1	70 70
	80	MJE1102## MJE1103##	MJE1092## MJE1093##	750 min 750 min	3A 4A				1 1	70 70
8	60	MJE6043##	MJE6040##	1k/20k	4	1.5 typ	1.5 typ	4	4#	75
	80	MJE6044##	MJE6041##	1k/20k	4	1.5 typ	1.5 typ	4	4#	75
	100	MJE6045##		1k/20k	4	1.5 typ	1.5 typ	4	4#	75
10	60	MJE2801 MJE3055	MJE2901 MJE2955	25/100 20/70	3 4				2	90 90
	40	2N5989		20/120	6	0.5 typ	0.25 typ	6	2	100
12	80	2N5991		20/120	6	0.5 typ	0.25 typ	6	2	100
15	40	MJE1660		20/100	5				3	90
	60	MJE1661		20/100	5				3	90

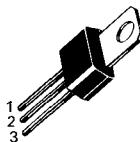
|h_{FE}| @ 1 MHz, ## Darlington

† Not recommended for new designs (check TO-220, Table 5 for alternates)

2

TABLE 9 — PLASTIC CASE 152†

STYLE 1:
PIN 1. EMITTER
2. BASE
3. COLLECTOR



(COLLECTOR CONNECTED TO TAB)

I _C Cont Amps Max	V _{CEO(sus)} Volts Min	Device Type		h _{FE} Min/Max	@ I _C Amp	Resistive Switching			f _T MHz Min	P _D (Case) Watts @ 25°C
						t _s μs Max	t _f μs Max	@ I _C Amp		
		NPN	PNP							
0.5	300	MPS-U10	MPS-U60	30 min	0.03				60	10
0.8	40	MPS-U02	MPS-U52	30 min	0.5				150	10
1	120	MPS-U03		40 min	0.01				100	10
	180	MPS-U04		40 min	0.01				100	10
2	30	MPS-U01	MPS-U51	50 min	1				50	10
	40	MPS-U01A MPS-U45##	MPS-U51A MPS-U95##	50 min 4k min	1 1				50 100	10 10

Darlington

(continued)

† Not recommended for new designs (check TO-225, Table 7 or TO-220, Table 5 for alternates)

TABLE 12 — POWER DARLINGTONS (continued)

I _C Cont Amps Max	V _{CEO(sus)} Volts Min	Device Type		h _{FE} Min/Max	@ I _C Amp	Resistive Switching			h _{FE} @ 1 MHz Min	P _D (Case) Watts @ 25°C	Case JEDEC/MOT
		NPN	PNP			t _s μs Max	t _f μs Max	@ I _C Amp			
4	40	MJE3300 2N6037	MJE3310 2N6034	1k min 750/1k	1 2				20 25	15 40	TO-225AA/77R TO-225AA/77
		BD675 BD675A	BD676 BD676A BD776	750 min 750 min 750 min	1.5 2 2					40 40 15	TO-225AA/77 TO-225AA/77 TO-225AA/77
	60	BD677 BD677A BD777	BD678 BD678A BD778	750 min 750 min 750 min	1.5 2 2					15 40 40	TO-225AA/77 TO-225AA/77 TO-225AA/77
		MJE3301 MJE800 MJE800T	MJE700 MJE700T	1k min 750 min 750 min	1 1.5 1.5				20 20 1	15 40 40	TO-225AA/77R TO-225AA/77 TO-225AA/77
		MJE801 2N6038 2N6294	MJE701 2N6035 2N6296	750 min 750/18k 750/18k	2 2 2	1.7 typ 0.9 typ	1.2 typ 0.7 typ	2 2	1 25 4	40 40 50	TO-225AA/77 TO-225AA/77 TO-213AA/80
		BD679 BD679A BD779	BD680 BD680A BD780	750 min 750 min 750 min	1.5 2 2					40 40 15	TO-225AA/77 TO-225AA/77 TO-225AA/77
		MJD6039 MJE802 MJE803	MJD6036 MJE702 MJE703	1k/12k 750 min 750 min	2 1.5 2	1.7 typ 1.7 typ	1.2 typ 1.2 typ	2 2	20 25 4	15 20 40	TO-252/369A-04 TO-225AA/77 TO-225AA/77
		2N6039 2N6295	2N6036 2N6297	750/18k 750/18k	2 2	0.9 typ 0.7 typ	0.7 typ 0.7 typ	2 2	25 4	40 50	TO-225AA/77 TO-213AA/80
	100	BD681	BD682	750 min	1.5					40	TO-225AA/77
5	60	MJE1100 MJE1101 TIP120	MJE1090 MJE1091 TIP125	750 min 750 min 1k min	3A 4A 3				1 1 4	70 70 65	TO-225AB/90 TO-225AB/90 TO-220/221A
		MJE1102 MJE1103 TIP121	MJE1092 MJE1102 TIP126	750 min 750 min 1k min	3A 4A 3	1.5 typ 1.5 typ	1.5 typ 1.5 typ	3 3	1 1 4	70 70 65	TO-225AB/90 TO-225AB/90 TO-220/221A
	100	MJF122 TIP122	MJF127 TIP127	2k min 1k min	3 3	1.5 typ 1.5 typ	1.5 typ 1.5 typ	3 3	4 4	28 65	—/221C-02 TO-220/221A
7	300	MJ3041		250 min	2.5					100	TO-204/1
	350	MJ3042		250 min	2.5					100	TO-204/1
	375	BU522		250 min	2.5				7.5	75	TO-220/221A
	425	BU522A		250 min	2.5				7.5	75	TO-220/221A
	450	BU522B		250 min	2.5				7.5	75	TO-220/221A
8	40	2N6386		1k/20k	3				20	65	TO-220/221A
	45	BDX53 BD895 BD895A	BDX54 BD896 BD896A	750 min 750 min 750 min	3 3 4				4 1 1	60 70 70	TO-220/221A TO-220/221A TO-220/221A
		BDX53A BD897 BD897A	BDX54A BD898 BD898A	750 min 750 min 750 min	3 3 4				4 1 1	60 70 70	TO-220/221A TO-220/221A TO-220/221A
		MJ1000 TIP100 2N6043	MJ900 TIP105 2N6040	1k min 1k/20k 1k/10k	3 3 4	1.5 typ 1.5 typ	1.5 typ 1.5 typ	3 3	4 4 4	90 80 75	TO-204/1 TO-220/221A TO-220/221A
	60	2N6300 2N6055 MJE6043	2N6298 2N6053 MJE6040	750k/18k 750k/18k 1k/20k	4 4 4	1.5 typ 1.5 typ 1.5 typ	1.5 typ 1.5 typ 1.5 typ	4 4 4	4 4 2	75 100 75	TO-213AA/80 TO-204/1 TO-225AB/90
		BDX53B BD899 BD899A	BDX54B BD900 BD900A	750 min 750 min 750 min	3 3 4				4 1 1	60 70 70	TO-220/221A TO-220/221A TO-220/221A
	80										
	100										

(continued)