

TO-220 Type Power Transistor Selection Guide

Part Number		I _C (A)	V _{CE0} (V)	h _{FE}		@		Max V _{CE} (SAT)		P _D (W)	f _T (MHz)	Process (NPN/PNP)
NPN	PNP			Min	Max	I _C (A)	V _{CE} (V)	(V)	@ I _C (A)			
TIP61	TIP62	0.5	40	15	100	0.5	4	0.7	0.5	20	3	4F/5F
TIP61A	TIP62A	0.5	60	15	100	0.5	4	0.7	0.5	20	3	4F/5F
TIP61B	TIP62B	0.5	80	15	100	0.5	4	0.7	0.5	20	3	4F/5F
TIP61C	TIP62C	0.5	100	15	100	0.5	4	0.7	0.5	20	3	4F/5F
TIP29	TIP30	1	40	15	75	1	4	0.7	1	30	3	4F/5F
TIP29A	TIP30A	1	60	15	75	1	4	0.7	1	30	3	4F/5F
TIP29B	TIP30B	1	80	15	75	1	4	0.7	1	30	3	4F/5F
TIP29C	TIP30C	1	100	15	75	1	4	0.7	1	30	3	4F/5F
TIP110	TIP115	2	60	1000		1	4	2.5	2	50	1	4J/5J
TIP111	TIP116	2	80	1000		1	4	2.5	2	50	1	4J/5J
TIP112	TIP117	2	100	1000		1	4	2.5	2	50	1	4J/5J
TIP31	TIP32	3	40	10	50	3	4	1.2	3	40	3	4F/5F
TIP31A	TIP32A	3	60	10	50	3	4	1.2	3	40	3	4F/5F
TIP31B	TIP32B	3	80	10	50	3	4	1.2	3	40	3	4F/5F
TIP31C	TIP32C	3	100	10	50	3	4	0.2	3	40	3	4F/5F
D44C1	D45C1	3	30	25		0.2	1	0.5	1	30	50	4P/5P
D44C2	D45C2	3	30	40	120	0.2	1	0.5	1	30	50	4P/5P
D44C3	D45C3	3	30	40	120	0.2	1	0.5	1	30	50	4P/5P
2N5296		4	40	30	120	1	4	1	1	36	2	4E
D44C4	D45C4	3	45	25		0.2	1	0.5	1	30	50	4P/5P
D44C5	D45C5	3	45	40	120	0.2	1	0.5	1	30	50	4P/5P
D44C6	D45C6	3	45	40	120	0.2	1	0.5	1	30	50	4P/5P
2N6121	2N6124	4	45	25	100	1.5	2	0.6	1.5	40	2.5	4E/5E
D44C7	D45C7	3	60	25		0.2	1	0.5	1	30	50	4P/5P
D44C8	D45C8	3	60	40	120	0.2	1	0.5	1	30	50	4P/5P
D44C9	D45C9	3	60	40	120	0.2	1	0.5	1	30	50	4P/5P
2N5298		4	60	20	80	1.5	4	1	1.5	36	2	4E
2N6122	2N6125	4	60	25	100	1.5	2	0.6	1.5	40	2.5	4E/5E
2N5294		4	70	30	120	0.5	4	1	0.5	36	2	4E
D44C10	D45C10	3	80	25		0.2	1	0.5	1	30	50	4P/5P
D44C11	D45C11	3	80	100	220	0.2	1	0.5	1	30	50	4P/5P
D44C12	D45C12	3	80	40	120	0.2	1	0.5	1	30	50	4P/5P
2N6123	2N6126	4	80	20	80	1.5	2	0.6	1.5	40	2.5	4E/5E
MJE105T	MJE205T	5	50	25	100	2	2			65		4A/5A
TIP120	TIP125	5	60	1000		3	3	2	3	65	1	4J/5K
TIP121	TIP126	5	80	1000		3	3	2	3	65	1	4K/5K
TIP122	TIP127	5	100	1000		3	3	2	3	65	1	4K/5K
TIP41	TIP42	6	40	15	75	3	4	1.5	6	65	3	4A/5A
TIP41A	TIP42A	6	60	15	75	3	4	1.5	6	65	3	4A/5A
TIP130	TIP135	6	60	1000	15,000	4	4	2	4	65	1	4K/5K
TIP41B	TIP42B	6	80	15	75	3	4	1.5	6	65	3	4A/5A
TIP131	TIP136	6	80	1000	15,000	4	4	2	4	65	1	4K/5K
TIP41C	TIP42C	6	100	15	75	3	4	1.5	6	65	3	4A/5A
TIP132	TIP137	6	100	1000	15,000	4	4	2	4	65	1	4K/5K
2N6288	2N6111	7	30	30	150	3	4	1	3	40	4	4E/5E
2N5494		7	40	20	100	2	4	1	0.2	50	0.8	4E
2N5494		7	40	20	100	3	4	1	0.3	50	0.8	4E
2N6129	2N6132	7	40	20	100	2.5	4	1.4	7	50	2.5	4E/5E
2N6290	2N6109	7	50	30	150	2.5	4	1	2.5	40	4	4E/5E
2N5492		7	55	20	100	2.5	4	1	0.25	50	0.8	4E



DARLINGTON (Continued)

Type No.	Case Style	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	I _{CES} * I _{CB0} (μA) Max	V _{CB} (V) @	h _{FE} Min	Max	I _C (mA) @	V _{CE} (V) @	V _{CE} (SAT) (V) Max	V _{BE} (SAT) (V) Min	Max	I _C (mA) @	C _{ob} (pF) Max	f _T (MHz) Min	Max	I _C (mA) @	Process No.
2N6037	TO-126		40		500	40	100 750 500	1500	4A 2A 0.5	3 3 3	2.0 3.0	4.0		2A 4A	200	25		0.75A	4J
2N6038	TO-126		60		500	60	100 750 500	1500	4A 2A 0.5	3 3 3	2.0 3.0	4.0		2A 4A	200	25		0.75A	4J
2N6039	TO-126		80		500	80	100 750 500	1500	4A 2A 0.5	3 3 3	2.0 3.0	4.0		2A 4A	200	25		0.75A	4J
2N6386	TO-220		40		300*	40	100 1000	20,000	8 3	3 3	2.0 3.0			3 8	200	20		1	4J
MJE800	TO-126		60		200	60	750		1.5	3	2.5			1.5					4J
MJE801	TO-126		60		200	60	750		2	3	2.8			2					4J
MJE802	TO-126		80		200	80	750		1.5	3	2.5			1.5					4J
MJE803	TO-126		80		200	80	750		2	3	2.8			2					4J
TIP110	TO-220		60		1 mA	60	500 1000		2 1	4 4	2.5			2					4J
TIP111	TO-220		80		1 mA	80	500 1000		2 1	4 4	2.5			2					4J
TIP112	TO-220		100		1 mA	100	500 1000		2 1	4 4	2.5			2					4J
TIP120	TO-220		60		200	60	1000 1000		3 0.5	3 3	2.0 4.0			3 5					4J
TIP121	TO-220		80		200	80	1000 100		3 0.5	3 3	2.0 4.0			3 5					4J
TIP122	TO-220		100		200	100	1000		3	3	2.0			3					4J
2N6387	TO-220	60	60	5			1000 100	20,000	5 10	3 3	3.0			10	200				4K
2N6388	TO-220	80	80	5			1000 100	20,000	5 10	3 3	3.0			10	200				4K
2N6043	TO-220		60		500	60	10,000 100	20,000	4 8	4 4	2.0 4.0		4.5	4 8	200	4		3	4K
2N6044	TO-220		80		500	80	1000 100	20,000	4 8	4 4	2.0 4.0		4.5	4 8	200	4		3	4K
2N6045	TO-220		100		500	100	1000 100	20,000	4 8	4 4	2.0 4.0		4.5	4 8	200	4		3	4K
SE9300	TO-220		60	4			750 1000 100		1 4 7.5	3 3 3									4K