

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



POWER (Continued)

Type No.	Case Style	V _{CB0} (V) Min	V _{CEO} (V) Min	V _{EBO} (V) Min	I _{CES} * I _{CEX} † (μA) Max	V _{CB} (V)	h _{FE} Min	h _{FE} Max	I _C (A) @	V _{CE} (V) &	V _{CE} (SAT) (V) Max	V _{BE} (SAT) (V) Min	V _{BE} (SAT) (V) Max	I _C (A) @	C _{ob} (pF) Max	f _T (MHz) Min	f _T (MHz) Max	I _C (A) @	Process No.
2N6475	TO-220		100		100	100	15	150	1.5	4	1.2			1.5	250	10		0.5	5F
2N6476	TO-220		120		100	120	15	150	1.5	4	1.2			1.5	250	10		0.5	5F
MJE370	TO-220		30				25		0.2	1									5F
TIP30	TO-220		40		200*	40	15	75	1	4	0.7			1		3		0.2	5F
TIP30A	TO-220		60		200*	60	15	75	1	4	0.7			1		3		0.2	5F
TIP30B	TO-220		80		200*	80	15	75	1	4	0.7			1		3		0.2	5F
TIP30C	TO-220		100		200*	100	15	75	1	4	0.7			1		3		0.2	5F
TIP32	TO-220		40		200*	40	10	50	3	4	1.2			3		3		0.5	5F
TIP32A	TO-220		60		200*	60	10	50	3	4	1.2			3		3		0.5	5F
TIP32B	TO-220		80		200*	80	10	50	3	4	1.2			3		3		0.5	5F
TIP32C	TO-220		100		200*	100	10	50	3	4	1.2			3		3		0.5	5F
TIP62	TO-220		40		200*	40	15	100	0.5	4	0.7			0.5		3		0.05	5F
TIP62A	TO-220		60		200*	60	15	100	0.5	4	0.7			0.5		3		0.05	5F
TIP62B	TO-220		80		200*	80	15	100	0.5	4	0.7			0.5		3		0.05	5F
TIP62C	TO-220		100		200*	100	15	100	0.5	4	0.7			0.5		3		0.05	5F
D43C1	TO-202 (56)		30		1 μA	1	10		1A	1	0.5		1.3	1A	30				5P
D43C2	TO-202 (56)		30		1 μA	30	20		1A	1	0.5		1.3	1A	30				5P
D43C3	TO-202 (56)		30		1 μA	30	20		1A	1	0.5		1.3	1A	30				5P