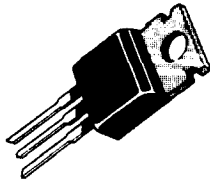


# PLASTIC POWER

## PLASTIC POWER TRANSISTOR SELECTOR CHART (TO-220 PACKAGE)

V <sub>CEO</sub> Volts	I <sub>C</sub> 3 Amps (TIP) I <sub>C</sub> 4 Amps (BD)		5 Amps		7 Amps		7 Amps		≥ 10 Amps
	NPN	PNP	NPN	PNP	NPN	PNP	NPN	PNP	NPN
30					2N6288	2N6111			
40	TIP29	TIP30	TIP31	TIP32			TIP41	TIP42	2N6103
45	BD239	BD240	BD241	BD242			BD243	BD244	
50					2N6290	2N6109			
60	BD239A TIP29A	BD240A TIP30A	BD241A TIP31A	BD242A TIP32A			BD243A TIP41A	BD244A TIP42A	2N6099 FGT3055
70					2N6292	2N6107			
80	BD239B TIP29B	BD240B TIP30B	BD241B TIP31B	BD242B TIP32B			BD243B TIP41B	BD244B TIP42B	2N6101
100	BD239C TIP29C	BD240C TIP30C	BD241C TIP31C	BD242C TIP32C			BD243C TIP41C	BD244C TIP42C	
P <sub>tot</sub>	30W	30W	40W	40W	40W	40W	65W	65W	75W note 1

**Note 1:** Refer to the Diffused Junction transistor section for more details of the devices in these columns.



TO-220

# NPN PLASTIC POWER

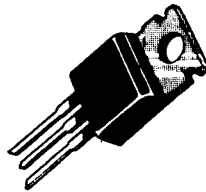
**TABLE 2 – NPN EPITAXIAL BASE TRANSISTORS**

The transistors shown in this table are designed for general purpose power applications and offer good switching and saturation performance with an excellent safe operating area in the popular TO-220 plastic package.

The devices are listed in order of decreasing Collector Current ( $I_C(\max)$ ), Breakdown Voltages, Power Dissipation ( $P_{tot}$ ) etc.

Type	$I_C(\max)$ A	$V_{CER}$ V	$V_{CEO}$ V	$h_{FE}$		at $I_C$ A	$P_{tot}$ at $T_{case}$ = 25°C W	PNP Complement
				Min.	Max.			
BD243C	6.5	115	100	15	—	3	65	BD244C
TIP41C	7	100	100	15	150	3	65	TIP42C
BD243B	6.5	90	80	15	—	3	65	BD244B
TIP41B	7	80	80	15	150	3	65	TIP42B
2N6292	7	80*	70	30	150	2	40	2N6107
BD243A	6.5	70	60	15	—	3	65	BD244A
TIP41A	7	60	60	15	150	3	65	TIP42A
2N6290	7	60*	50	30	150	2.5	40	2N6109
BD243	6.5	55	45	15	—	3	65	BD244
TIP41	7	40	40	15	150	3	65	TIP42
2N6288	7	40*	30	30	150	3	40	2N6111
BD241C	5	115	100	10	—	3	40	BD242C
TIP31C	5	100	100	10	50	3	40	TIP32C
BD241B	5	90	80	10	—	3	40	BD242B
TIP31B	5	80	80	10	50	3	40	TIP32B
BD241A	5	70	60	10	—	3	40	BD242A
TIP31A	5	60	60	10	50	3	40	TIP32A
BD241	5	55	45	10	—	3	40	BD242
TIP31	5	40	40	10	50	3	40	TIP32
BD239C	4	115	100	15	—	1	30	BD240C
TIP29C	3	100	100	15	150	1	30	TIP30C
BD239B	4	90	80	15	—	1	30	BD240B
TIP29B	3	80	80	15	150	1	30	TIP30B
BD239A	4	70	60	15	—	1	30	BD240A
TIP29A	3	60	60	15	150	1	30	TIP30A
BD239	4	55	45	15	—	1	30	BD240
TIP29	3	40	40	15	150	1	30	TIP30

\* $V_{CEX}$



TO-220

# PNP PLASTIC POWER

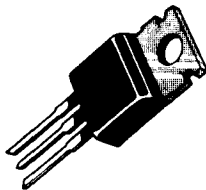
**TABLE 3 – PNP EPITAXIAL BASE TRANSISTORS**

The transistors shown in this table are designed for general purpose power applications and offer good switching and saturation performance with an excellent safe operating area in the popular TO-220 plastic package.

The devices are listed in order of decreasing Collector Current ( $I_C(\max)$ ), Breakdown Voltages, Power Dissipation ( $P_{tot}$ ) etc.

Type	$I_C(\max)$ A	$V_{CER}$ V	$V_{CEO}$ V	$h_{FE}$		at $I_C$ A	$P_{tot}$ at $T_{case}$ = 25°C W	PNP Complement
				Min.	Max.			
BD244C	6.5	115	100	15	—	3	65	BD243C
TIP42C	7	100	100	15	150	3	65	TIP41C
BD244B	6.5	90	80	15	—	3	65	BD243B
TIP42B	7	80	80	15	150	3	65	TIP41B
2N6107	7	80*	70	30	150	2	40	2N6292
BD244A	6.5	70	60	15	—	3	65	BD243A
TIP42A	7	60	60	15	150	3	65	TIP41A
2N6109	7	60*	50	30	150	2.5	40	2N6290
BD244	6.5	55	45	15	—	3	65	BD243
TIP42	7	40	40	15	150	3	65	TIP41
2N6111	7	40*	30	30	150	3	40	2N6288
BD242C	5	115	100	10	—	3	40	BD241C
TIP32C	5	100	100	10	50	3	40	TIP31C
BD242B	5	90	80	10	—	3	40	BD241B
TIP32B	5	80	80	10	50	3	40	TIP31B
BD242A	5	70	60	10	—	3	40	BD241A
TIP32A	5	60	60	10	50	3	40	TIP31A
BD242	5	55	45	10	—	3	40	BD241
TIP32	5	40	40	10	50	3	40	TIP31
BD240C	4	115	100	15	—	1	30	BD239C
TIP30C	3	100	100	15	150	1	30	TIP29C
BD240B	4	90	80	15	—	1	30	BD239B
TIP30B	3	80	80	15	150	1	30	TIP29B
BD240A	4	70	60	15	—	1	30	BD239A
TIP30A	3	60	60	15	150	1	30	TIP29A
BD240	4	55	45	15	—	1	30	BD239
TIP30	3	40	40	15	150	1	30	TIP29

\* $V_{CEX}$



TO-220