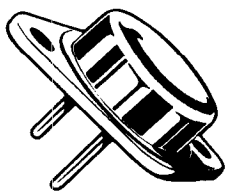
NPN DIFFUSED JUNCTION

TABLE 1 – NPN SILICON DIFFUSED JUNCTION TRANSISTORS

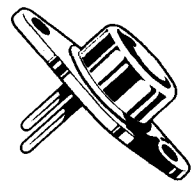
The transistors shown in this table are designed for high current, high dissipation applications where a large safe operating area is required. Typical application areas include a wide variety of power switching and linear applications such as regulators, inverters, audio-output stages and solenoid drivers.

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_{CBO} V	V_{CEO} V	h_{FE} min.	h_{FE} max.	at I_C A	P_{tot} at T_{case} = 25°C W	Package
2N6103	16	45	40	15	60	8	75	TO-220
2N3055	15	100	60	20	70	4	115	TO-3
FGT3055	15	100	60	20	70	4	75	TO-220
2N3442	10	160	140	20	70	3	117	TO-3
2N6101	10	80	70	20	80	5	75	TO-220
2N6099	10	70	60	20	80	4	75	TO-220
2N3054	4	90	55	25	150	0.5	25	TO-66
2N3441	3	160	140	25	100	0.5	25	TO-66



TO-3



TO-66

HIGH VOLTAGE

NPN HIGH VOLTAGE SELECTOR CHART

Package I_C / V_{CEO} Volts	TO-39 <2A	TO-66 2-5A	TO-3 10A
140		2N3441	2N3442
175		2N3583	
250	2N3440	2N3584	
300		2N3585	
350	2N3439		

TABLE 5 – NPN HIGH VOLTAGE TRANSISTORS

The transistors shown in this table are characterised for high voltage operation in industrial, commercial and military equipments.

Typical application areas include differential and operational amplifiers, inverters, inductive switching and series regulators.

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

Type	I_C (Max) cont. A	V_{CBO} V	V_{CEO} V	$V_{CE(sat)}$ at V	at I_C A	at I_B mA	h_{FE} at Min	Max	at I_C A	P_{tot} at T_{case} = 25°C W	Package
2N3442	10	160	160*	1	3	300	20	70	3	117	TO-3
2N3441	3	160	160*	1	0.5	50	25	100	0.5	25	TO-66
2N3585	2	500	300	0.75	1	125	25	100	1	35	TO-66
2N3584	2	375	250	0.75	1	125	25	100	1	35	TO-66
2N3583	2	250	175	0.75	1	125	10	—	1	35	TO-66
2N3439	1	450	350	0.5	0.05	4	40	160	0.02	10	TO-39
2N3440	1	300	250	0.5	0.05	4	40	160	0.02	10	TO-39

*V_{CEX} †Typical h_{FE}