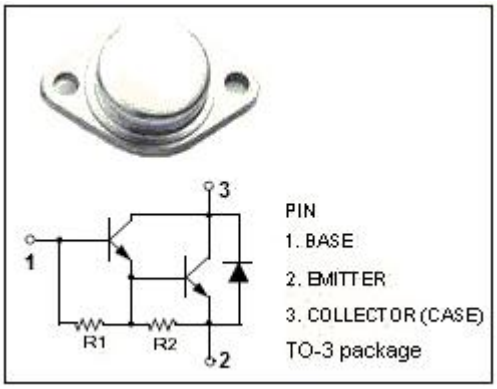
isc Silicon NPN Darlingtion Power Transistor — 2SD504

DESCRIPTION

- High DC current gain-
  h_{FE} = 750 (Min) @ I_C = 6A
- Collector-Emitter Sustaining Voltage-
  $V_{CEO(SUS)}$= 60V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

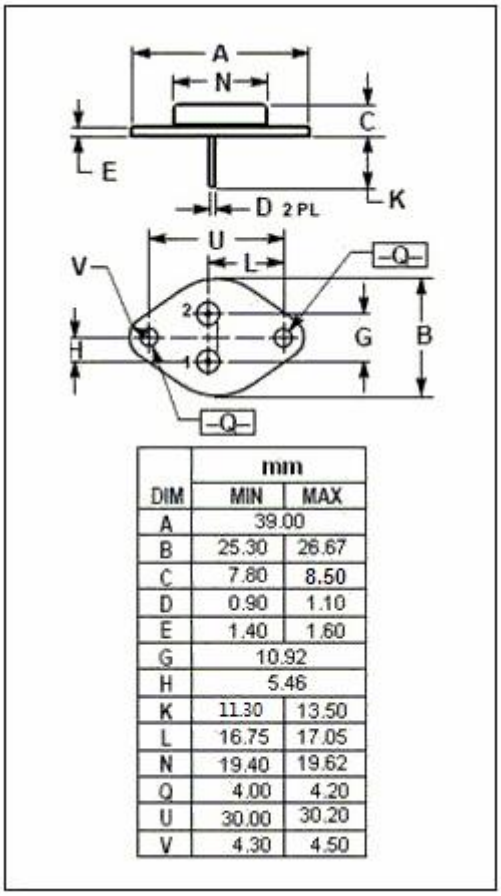


APPLICATIONS

- Designed for general purpose amplifier and low frequency switching applications.

ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	12	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current	0.2	A
P_C	Collector Power Dissipation@T_C=25℃	150	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA ; I_B= 0	60		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 6A; I_B= 24mA		2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 12A; I_B= 120mA		3.0	V
$V_{BE(on)}$	Base-Emitter On voltage	I_C= 6A ; V_{CE}= 3V		2.8	V
I_{CEO}	Collector Cutoff current	V_{CE}= 30V; I_B= 0		1.0	mA
I_{CBO}	Collector Cutoff current	V_{CB}= 60V;I_E= 0 V_{CB}= 60V;I_E= 0;T_C= 150℃		0.5 5.0	mA
I_{EBO}	Emitter Cut-off current	V_{EB}= 5V; I_C= 0		2.0	mA
h_{FE-1}	DC Current Gain	I_C= 6A ; V_{CE}= 3V	750	18000	
h_{FE-2}	DC Current Gain	I_C= 12A ; V_{CE}= 3V	100		
C_{OB}	Output Capacitance	I_E=0 ; V_{CB}= 10V;f_{test}= 0.1MHz		300	pF