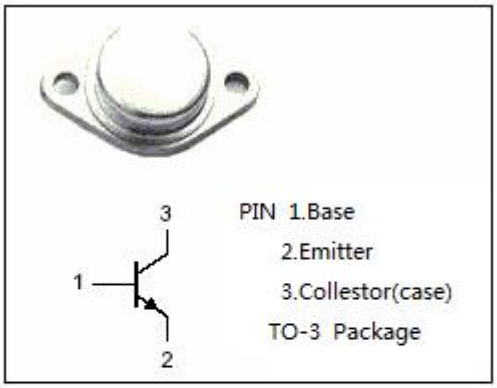
isc Silicon NPN Power Transistors — BD751/751A

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 90V(Min)- BD751
  = 120V(Min)- BD751A
- High Power Dissipation
- Complement to Type BD750/750A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

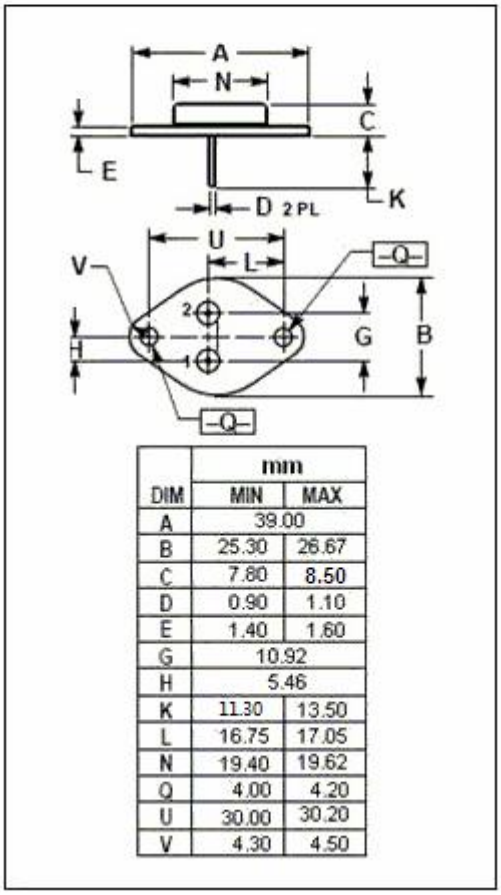
APPLICATIONS

- Designed for high voltage and high power amplifier applications.



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage	BD751	100	V
		BD751A	130	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BD751	90	V
		BD751A	120	
V_{EBO}	Emitter-Base Voltage		7	V
I_C	Collector Current-Continuous		20	A
I_B	Base Current-Continuous		5	A
P_C	Collector Power Dissipation@T_C=25℃		200	W
T_J	Junction Temperature		200	℃
T_{stg}	Storage Temperature		-65~200	℃



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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.875	℃/W

isc Silicon NPN Power Transistors — BD751/751A

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BD751	I_C=30mA ; I_B=0	90			V
		BD751A		120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BD751	I_C= 7.5A; I_B= 0.75A			1.5	V
		BD751A	I_C= 5A; I_B= 0.5A			1.0	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BD751	I_C= 7.5A; I_B= 0.75A			1.8	V
		BD751A	I_C= 5A; I_B= 0.5A			1.8	
I_{CEV}	Collector Cutoff Current	BD751	V_{CEV}= 100V;$V_{BE(off)}$= 1.5V			0.5	mA
		BD751A	V_{CEV}= 130V;$V_{BE(off)}$= 1.5V			0.5	
I_{EBO}	Emitter Cutoff Current		V_{EB}= 7V; I_C=0			1.0	mA
h_{FE}	DC Current Gain	BD751	I_C= 7.5A ; V_{CE}= 2V	15		60	
		BD751A	I_C= 5A ; V_{CE}= 2V	25		100	