

SPTECH Silicon PNP Power Transistors

BD750/750A

DESCRIPTION

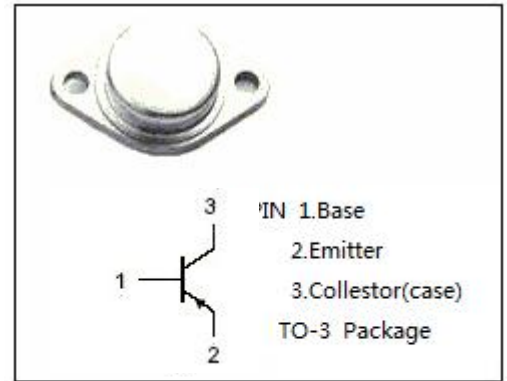
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -90V(\text{Min})$ - BD750
= $-120V(\text{Min})$ - BD750A
- High Power Dissipation
- Complement to Type BD751/751A

APPLICATIONS

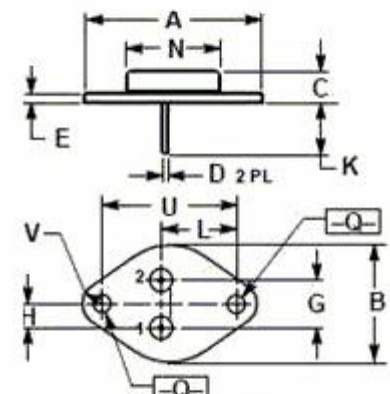
- Designed for high voltage and high power amplifier applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage	BD750	-100	V
		BD750A	-130	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BD750	-90	V
		BD750A	-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@ $T_c=25^\circ\text{C}$		200	W
T_J	Junction Temperature		200	$^\circ\text{C}$
T_{stg}	Storage Temperature		-65~200	$^\circ\text{C}$
SYMBOL	PARAMETER		MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case		0.875	$^\circ\text{C/W}$



TI



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

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	BD750	$I_C = -30\text{mA}$; $I_B = 0$	-90			V
		BD750A		-120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BD750	$I_C = -7.5\text{A}$; $I_B = -0.75\text{A}$			-1.5	V
		BD750A	$I_C = -5\text{A}$; $I_B = -0.5\text{A}$			-1.0	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BD750	$I_C = -7.5\text{A}$; $I_B = -0.75\text{A}$			-1.8	V
		BD750A	$I_C = -5\text{A}$; $I_B = -0.5\text{A}$			-1.8	
I_{CEV}	Collector Cutoff Current	BD750	$V_{CEV} = -100\text{V}$; $V_{BE(off)} = -1.5\text{V}$			-0.5	mA
		BD750A	$V_{CEV} = -130\text{V}$; $V_{BE(off)} = -1.5\text{V}$			-0.5	
I_{EBO}	Emitter Cutoff Current		$V_{EB} = -7\text{V}$; $I_C = 0$			-1.0	mA
h_{FE}	DC Current Gain	BD750	$I_C = -7.5\text{A}$; $V_{CE} = -2\text{V}$	15		60	
		BD750A	$I_C = -5\text{A}$; $V_{CE} = -2\text{V}$	25		100	
f_T	Current-Gain—Bandwidth Product		$I_C = -0.5\text{A}$; $V_{CE} = -10\text{V}$; $f_{test} = 1\text{MHz}$	4			MHz