

isc Silicon PNP Power Transistors

BD750B/750C

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -100V(\text{Min})$ - BD751B
= $-130V(\text{Min})$ - BD751C
- High Power Dissipation
- Complement to Type BD751B/751C

APPLICATIONS

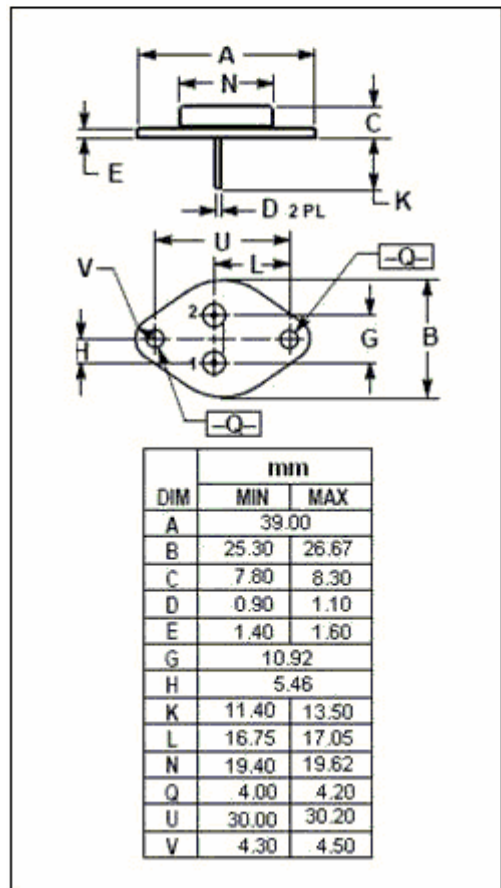
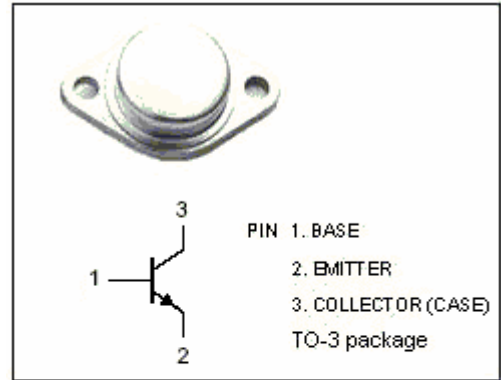
- Designed for high voltage and high power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CEV}	Collector-Emitter Voltage	BD750B	-110	V
		BD750C	-140	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BD750B	-100	V
		BD750C	-130	
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@ $T_C=25^\circ\text{C}$	250	W	
T_J	Junction Temperature	200	$^\circ\text{C}$	
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$	

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT		
$V_{\text{CEO(SUS)}}$	Collector-Emitter Sustaining Voltage	BD750B	$I_C = -100\text{mA}; I_B = 0$			V		
		BD750C					-130	
$V_{\text{CE(sat)}}$	Collector-Emitter Saturation Voltage	BD750B	$I_C = -7.5\text{A}; I_B = -0.75\text{A}$			V		
		BD750C	$I_C = -5\text{A}; I_B = -0.5\text{A}$				-1.0	
$V_{\text{BE(sat)}}$	Base-Emitter Saturation Voltage	BD750B	$I_C = -7.5\text{A}; I_B = -0.75\text{A}$			V		
		BD750C	$I_C = -5\text{A}; I_B = -0.5\text{A}$				-1.8	
I_{CEV}	Collector Cutoff Current	BD750B	$V_{\text{CEV}} = -110\text{V}; V_{\text{BE(off)}} = -1.5\text{V}$			mA		
		BD750C	$V_{\text{CEV}} = -140\text{V}; V_{\text{BE(off)}} = -1.5\text{V}$				-0.5	
I_{EBO}	Emitter Cutoff Current		$V_{\text{EB}} = -7\text{V}; I_C = 0$			-1.0	mA	
h_{FE}	DC Current Gain	BD750B	$I_C = -7.5\text{A}; V_{\text{CE}} = -2\text{V}$				15	60
		BD750C	$I_C = -5\text{A}; V_{\text{CE}} = -2\text{V}$				25	100
f_{T}	Current-Gain—Bandwidth Product		$I_C = -0.5\text{A}; V_{\text{CE}} = -10\text{V}; f_{\text{test}} = 1\text{MHz}$				4	MHz