

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

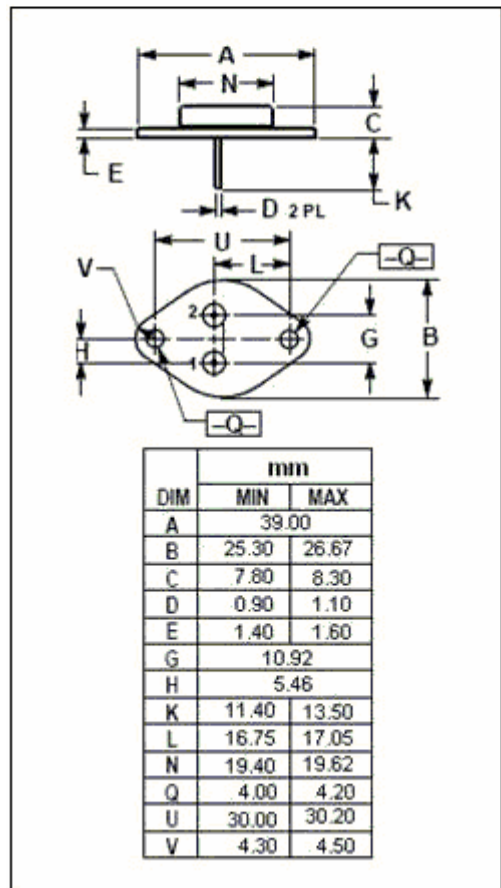
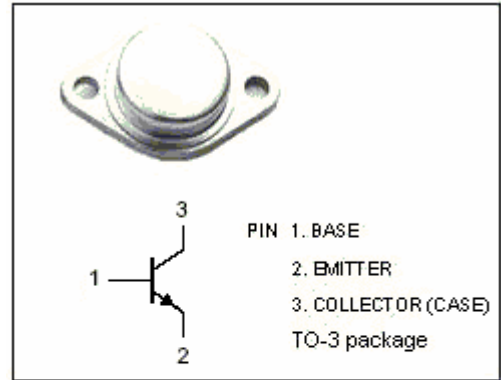
- Designed for high voltage and high power amplifier applications.

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	$^\circ\text{C/W}$



## isc Silicon PNP Power Transistors

## BD750B/750C

## 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	$I_C = -100\text{mA}; I_B = 0$	-100			V
		BD750C		-130			
$V_{\text{CE(sat)}}$	Collector-Emitter Saturation Voltage	BD750B	$I_C = -7.5\text{A}; I_B = -0.75\text{A}$			-1.5	V
		BD750C	$I_C = -5\text{A}; I_B = -0.5\text{A}$			-1.0	
$V_{\text{BE(sat)}}$	Base-Emitter Saturation Voltage	BD750B	$I_C = -7.5\text{A}; I_B = -0.75\text{A}$			-1.8	V
		BD750C	$I_C = -5\text{A}; I_B = -0.5\text{A}$			-1.8	
$I_{\text{CEV}}$	Collector Cutoff Current	BD750B	$V_{\text{CEV}} = -110\text{V}; V_{\text{BE(off)}} = -1.5\text{V}$			-0.5	mA
		BD750C	$V_{\text{CEV}} = -140\text{V}; V_{\text{BE(off)}} = -1.5\text{V}$			-0.5	
$I_{\text{EBO}}$	Emitter Cutoff Current		$V_{\text{EB}} = -7\text{V}; I_C = 0$			-1.0	mA
$h_{\text{FE}}$	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