

**isc Silicon NPN Power Transistor**
**BD317**
**DESCRIPTION**

- Excellent Safe Operating Area
- DC Current Gain- $h_{FE} = 25(\text{Min.}) @ I_C = 5A$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(\text{sat})} = 1.0 \text{ V}(\text{Max}) @ I_C = 8A$
- Complement to Type BD318
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

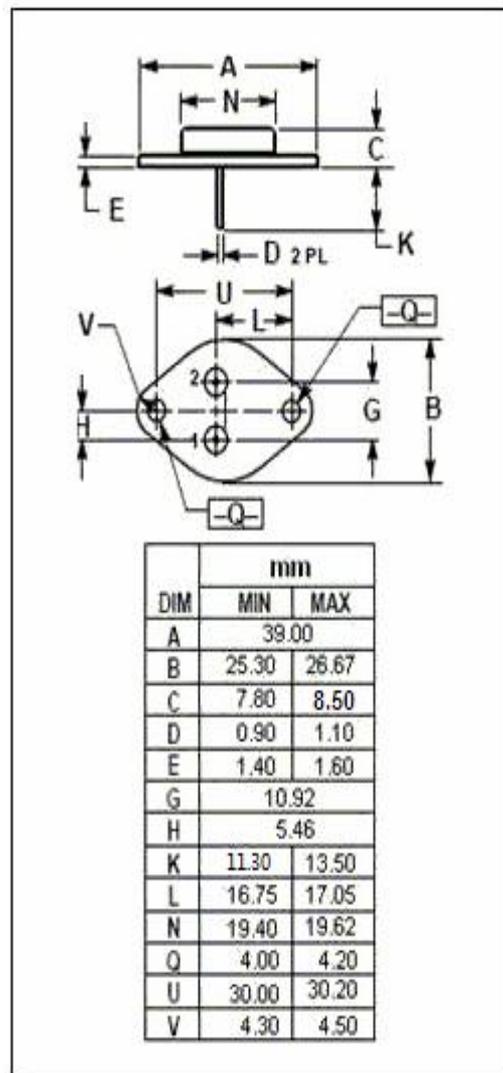
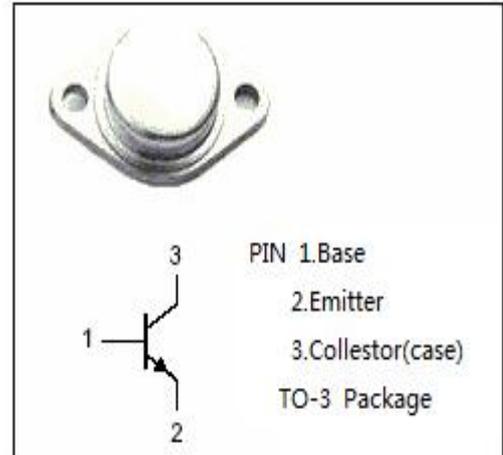
- Designed for high quality amplifiers operating up to 100 watts into 8 ohm load.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	16	A
$I_{CM}$	Collector Current-Peak	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	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

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



**isc Silicon NPN Power Transistor****BD317****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	100		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 8\text{A}; I_B= 0.8\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 8\text{A}; I_B= 0.8\text{A}$		1.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C= 8\text{A}; V_{CE}= 2\text{V}$		1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 100\text{V}; I_B=0$		1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 7\text{V}; I_C=0$		1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C= 5\text{A}; V_{CE}= 4\text{V}$	25		
$h_{FE-2}$	DC Current Gain	$I_C= 10\text{A}; V_{CE}= 4\text{V}$	15		
$f_T$	Current Gain-Bandwidth Product	$I_C= 1\text{A}; V_{CE}= 20\text{V}$	1		MHz

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