

**isc Silicon NPN Power Transistor**
**BD237**
**DESCRIPTION**

- DC Current Gain-  
:  $h_{FE} = 40(\text{Min}) @ I_C = 0.15\text{A}$
- Collector-Emitter Sustaining Voltage -  
:  $V_{CEO(\text{SUS})} = 80\text{V}(\text{Min})$
- Complement to Type BD238
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

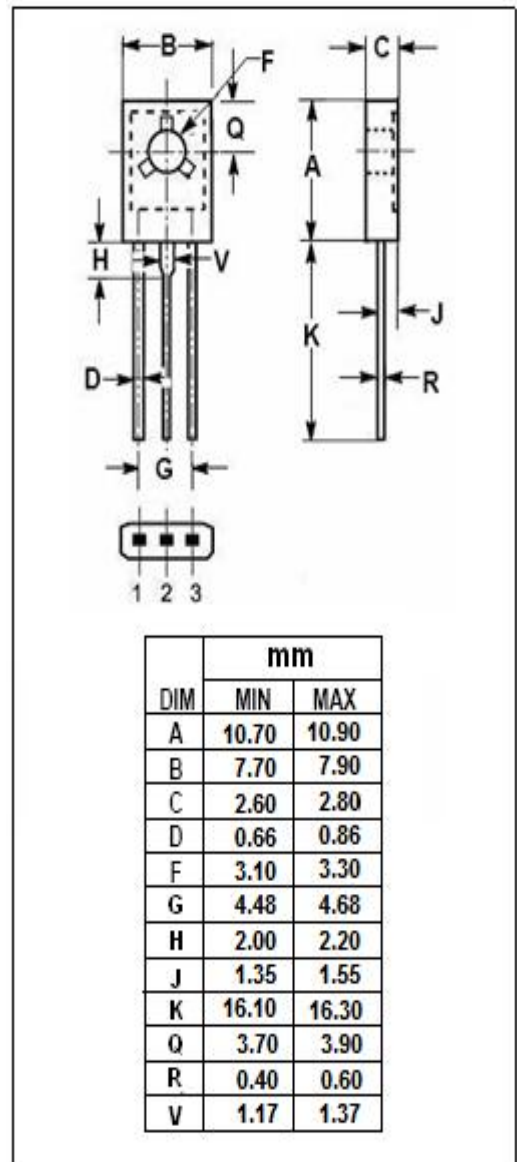
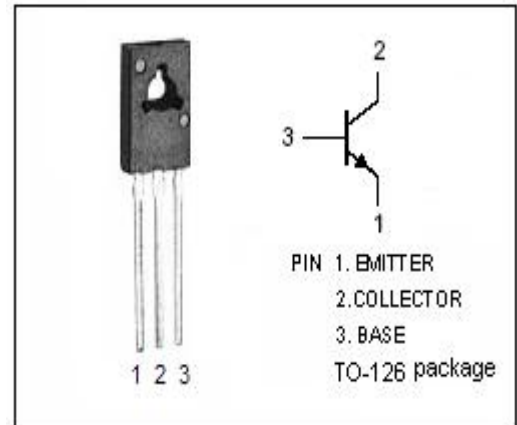
- Designed for use in 5~10 watt audio amplifiers and drivers utilizing complementary or quasi complementary circuits.

**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	80	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	2.0	A
$I_B$	Base Current-Continuous	1.0	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	25	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5.0	$^\circ\text{C}/\text{W}$



**isc Silicon NPN Power Transistor****BD237****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1.0\text{A}; I_B=0.1\text{A}$			0.6	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=1.0\text{A}; V_{CE}=2\text{V}$			1.3	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=100\text{V}; I_E=0$			100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C=150\text{mA}; V_{CE}=2\text{V}$	40			
$h_{FE-2}$	DC Current Gain	$I_C=1.0\text{A}; V_{CE}=2\text{V}$	25			
$f_T$	Current-Gain—Bandwidth Product	$I_C=250\text{mA}; V_{CE}=10\text{V}; f_{test}=1.0\text{MHz}$	3.0			MHz

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