

## isc Silicon PNP Power Transistor

BD738

## DESCRIPTION

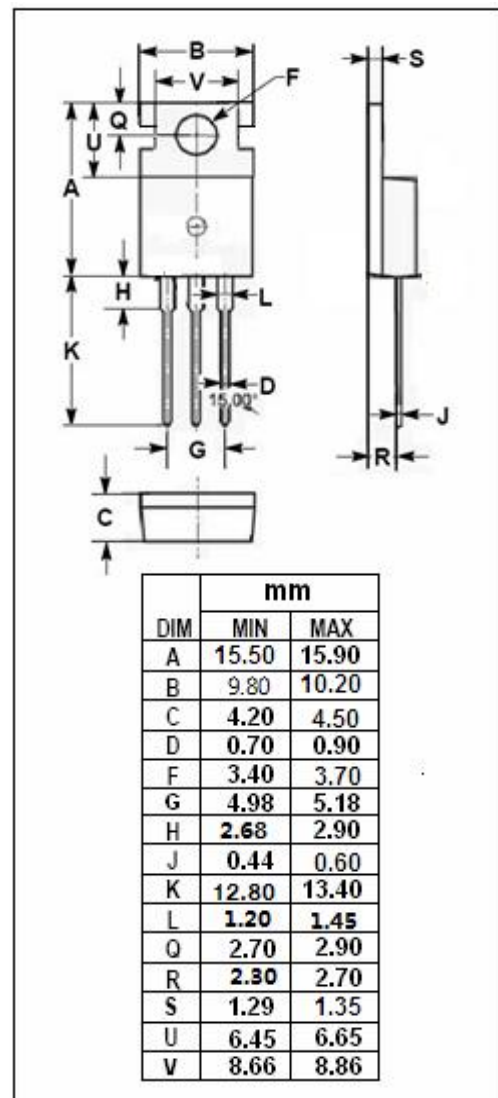
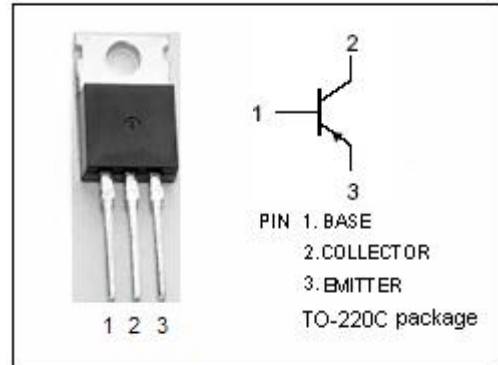
- DC Current Gain -  
:  $h_{FE} = 40(\text{Min.}) @ I_C = -20\text{mA}$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -45\text{V}(\text{Min.})$
- Complement to Type BD737
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-45	V
$V_{CEO}$	Collector-Emitter Voltage	-45	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-4	A
$I_{CM}$	Collector Current-Peak	-7	A
$I_B$	Base Current-Continuous	-1	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	40	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****BD738****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -30mA; I <sub>B</sub> = 0	-45		V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -0.1mA; I <sub>E</sub> = 0	-45		V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA; I <sub>C</sub> = 0	-5		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -2A; I <sub>B</sub> = -0.2A		-0.6	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -2A; V <sub>CE</sub> = -1V		-1.1	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = -45V; V <sub>BE</sub> = 0		-0.2	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -20mA; V <sub>CE</sub> = -4V	40		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A; V <sub>CE</sub> = -1V	40		

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