

## isc Silicon NPN Power Transistor

BD733

## DESCRIPTION

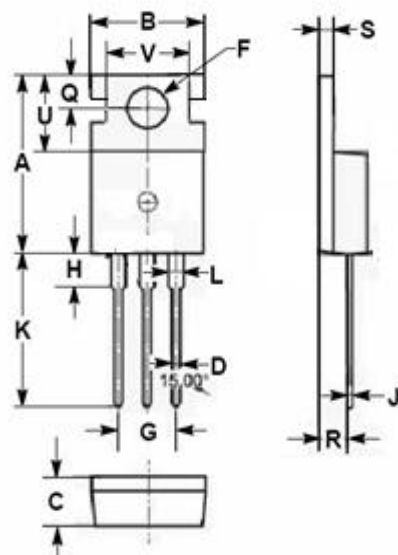
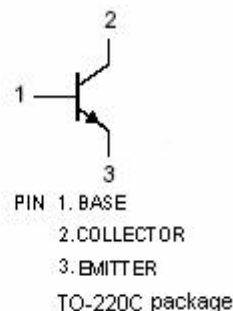
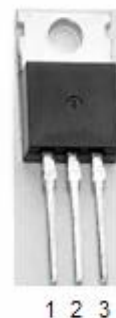
- DC Current Gain -  
:  $h_{FE} = 40(\text{Min.}) @ I_C = 20\text{mA}$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 25\text{V}(\text{Min.})$
- Complement to Type BD734
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## 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	25	V
$V_{CEO}$	Collector-Emitter Voltage	25	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	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

**isc Silicon NPN Power Transistor****BD733****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	25		V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 0.1mA; I <sub>E</sub> = 0	25		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> = 25V; 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	50		

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