

isc Silicon PNP Power Transistor
BD638
DESCRIPTION

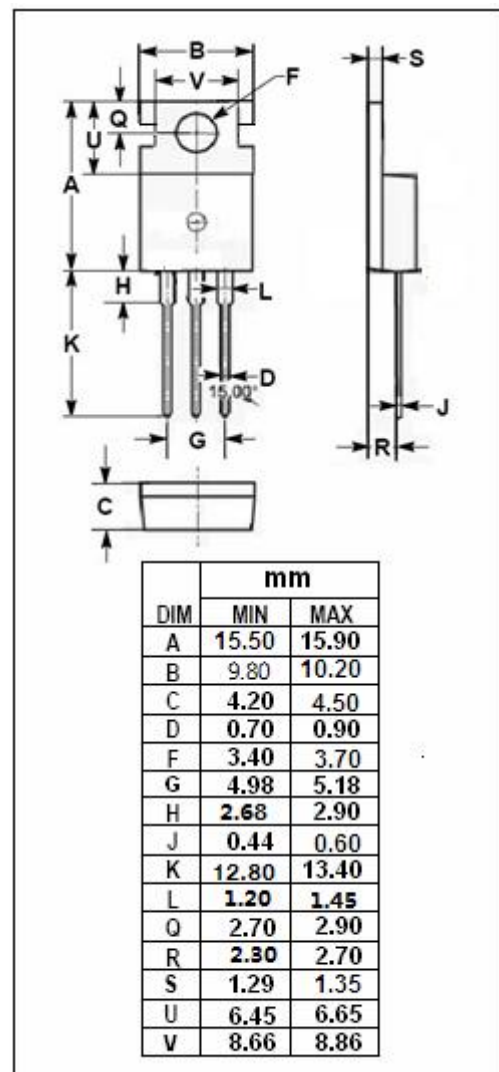
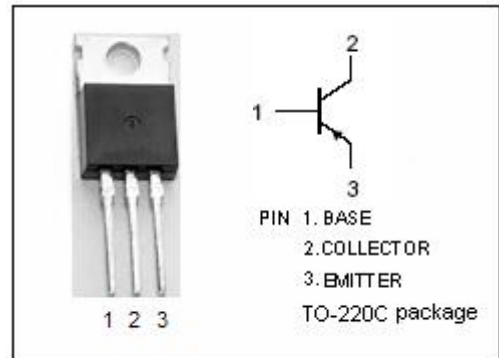
- DC Current Gain -
: $h_{FE} = 40(\text{Min.}) @ I_C = -25\text{mA}$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -80\text{V}(\text{Min.})$
- Complement to Type BD637
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	-100	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-2	A
I_{CM}	Collector Current-Peak	-5	A
I_B	Base Current-Continuous	-0.3	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	30	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -30mA; I _B = 0	-80		V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -0.1mA; I _E = 0	-100		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -1mA; I _C = 0	-5		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -1A; I _B = -0.1A		-0.6	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -1A; V _{CE} = -2V		-1.3	V
I _{CES}	Collector Cutoff Current	V _{CE} = -100V; V _{BE} = 0		-0.2	mA
h _{FE-1}	DC Current Gain	I _C = -25mA; V _{CE} = -2V	40		
h _{FE-2}	DC Current Gain	I _C = -1A; V _{CE} = -2V	25		

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