

**isc Silicon PNP Power Transistor**
**BD950**
**DESCRIPTION**

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -60V(\text{Min})$
- DC Current Gain-  
:  $h_{FE} = 40(\text{Min}) @ I_C = -500\text{mA}$
- Complement to Type BD949
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**APPLICATIONS**

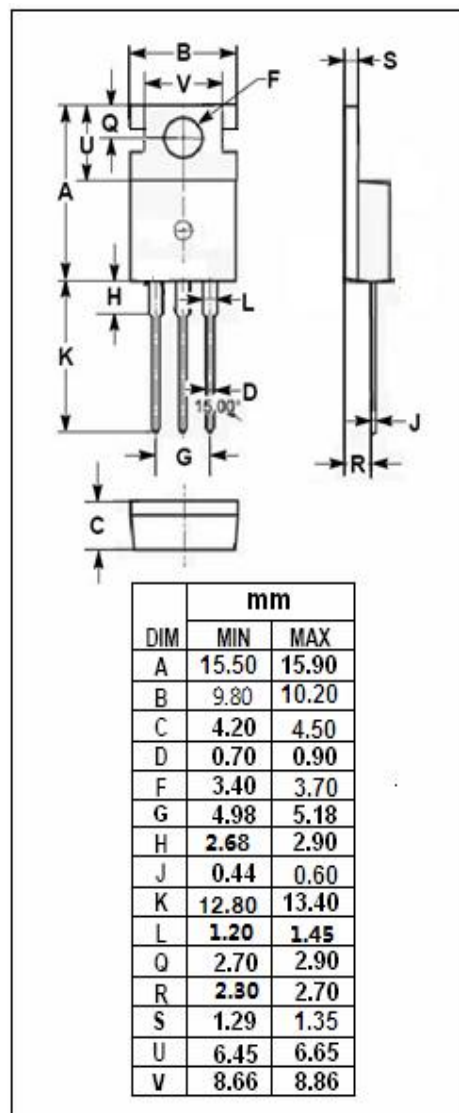
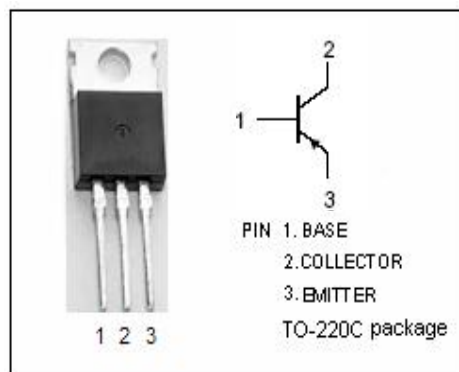
- Designed for power amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-5	A
$I_{CM}$	Collector Current-Peak	-8	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	40	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.12	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	70	$^\circ\text{C/W}$



## isc Silicon PNP Power Transistor

BD950

## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA ; I <sub>B</sub> = 0	-60			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -1mA ; I <sub>E</sub> = 0	-60			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			-1.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -2A; V <sub>CE</sub> = -4V			-1.4	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -60V; I <sub>E</sub> = 0			-50	μA
		V <sub>CB</sub> = -30V; I <sub>E</sub> = 0, T <sub>J</sub> =150°C			-1.0	mA
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -30V; I <sub>B</sub> = 0			-0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-0.2	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -500mA ; V <sub>CE</sub> = -4V	40			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -4V	20			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -500mA ; V <sub>CE</sub> = -4V	3			MHz

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