

isc Silicon PNP Power Transistor
2SB991
DESCRIPTION

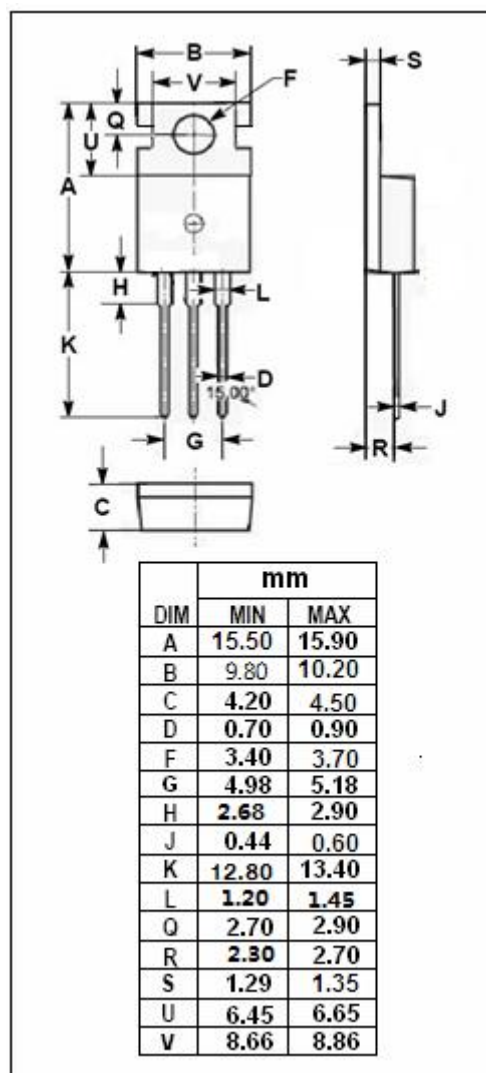
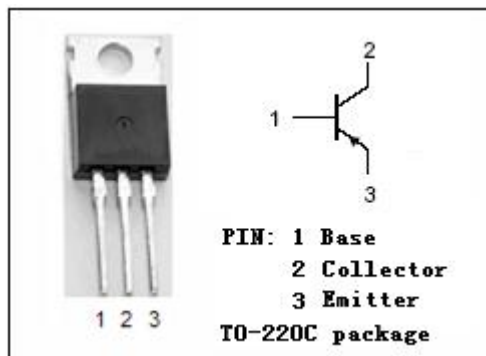
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -180V(\text{Min.})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -1.0(\text{Max.}) @ I_C = -0.5A$
- Wide area of safe operation
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-180	V
V_{CEO}	Collector-Emitter Voltage	-180	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-1.5	A
I_{CM}	Collector Current-Peak	-3.0	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	20	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -1mA; I _B = 0	-180			V
V _{(BR)CBO}	Collector-Base breakdown voltage	I _C =-1mA; I _E = 0	-180			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -1mA; I _C = 0	-6			V
V _{CE(sat)★}	Collector-Emitter Saturation Voltage	I _C = -500mA; I _B = -50mA			-1.0	V
V _{BE(sat)★}	Base-Emitter Saturation Voltage	I _C = -500mA; I _B = -50mA			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -180V; I _E = 0			-10	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = -180V; I _B = 0			-100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-10	μ A
h _{FE-1★}	DC Current Gain	I _C = -5mA ; V _{CE} = -5V	30			
h _{FE-2★}	DC Current Gain	I _C = -0.3A ; V _{CE} = -5V	60		320	
f _T	Current-Gain—Bandwidth Product	I _C =-0.5A ; V _{CE} = -10V		8		MHz

★Pulse Test/PW ≅ 350us, duty ≅ 2%

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