

isc Silicon PNP Power Transistor
2SB993
DESCRIPTION

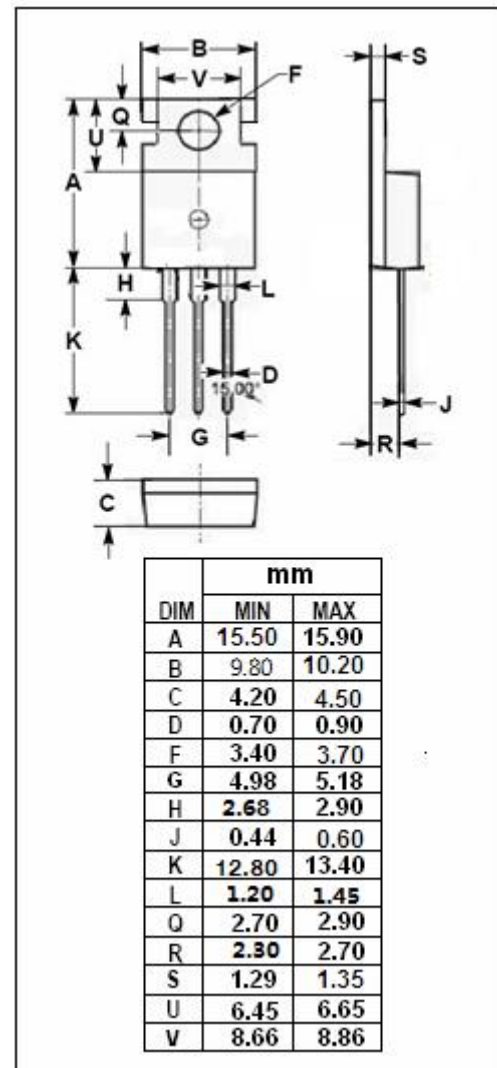
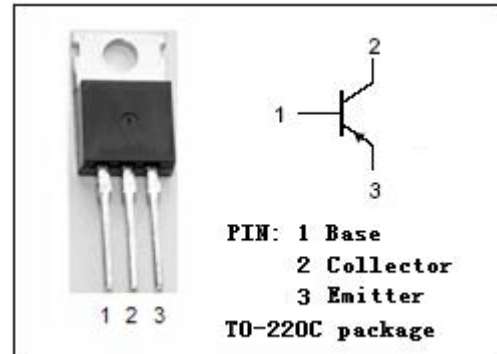
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -50V(\text{Min})$
- Collector Power Dissipation-
: $P_C = 40W @ T_C = 25^\circ C$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -0.4V(\text{Max}) @ I_C = -4A$
- Complement to Type 2SD1363
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High current switching applications.
- Power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-7	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_a=25^\circ C$	1.5	W
	Collector Power Dissipation @ $T_C=25^\circ C$	40	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}; I_B = 0$	-50			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -4\text{A}; I_B = -0.4\text{A}$			-0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -4\text{A}; I_B = -0.4\text{A}$			-1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -70\text{V}; I_E = 0$			-30	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-50	μA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -1\text{V}$	70		240	
h_{FE-2}	DC Current Gain	$I_C = -4\text{A}; V_{CE} = -1\text{V}$	30			

◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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