

isc Silicon PNP Power Transistor
2SB903
DESCRIPTION

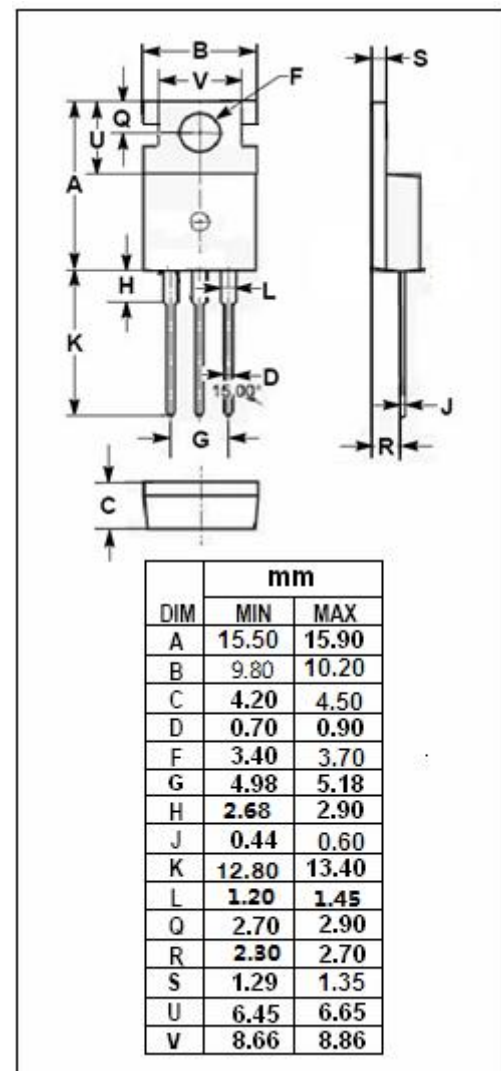
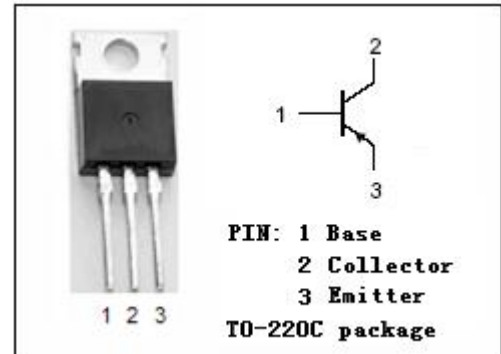
- High Collector Current: $I_C = -12A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.5V(\text{Max}) @ I_C = -5A$
- Complement to Type 2SD1212
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for relay drivers, high-speed inverters, converters, and other general large-current 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	-30	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-12	A
I_{CM}	Collector Current-Peak	-20	A
P_C	Total Power Dissipation @ $T_C = 25^\circ\text{C}$	35	W
	Total Power Dissipation @ $T_a = 25^\circ\text{C}$	1.75	
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	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -1mA ; R _{BE} = ∞	-30			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -1mA ; I _E = 0	-60			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 = -5A; I _B = -0.25A			-0.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -40V; I _E = 0			-0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4V; I _C = 0			-0.1	mA
h _{FE-1}	DC Current Gain	I _C = -1A; V _{CE} = -2V	70		280	
h _{FE-2}	DC Current Gain	I _C = -6A; V _{CE} = -2V	30			
f _T	Current-Gain—Bandwidth Product	I _C = -1A; V _{CE} = -5V		120		MHz

◆ h_{FE-1} Classifications

Q	R	S
70-140	100-200	140-280

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