

isc Silicon PNP Power Transistors

2SB503

DESCRIPTION

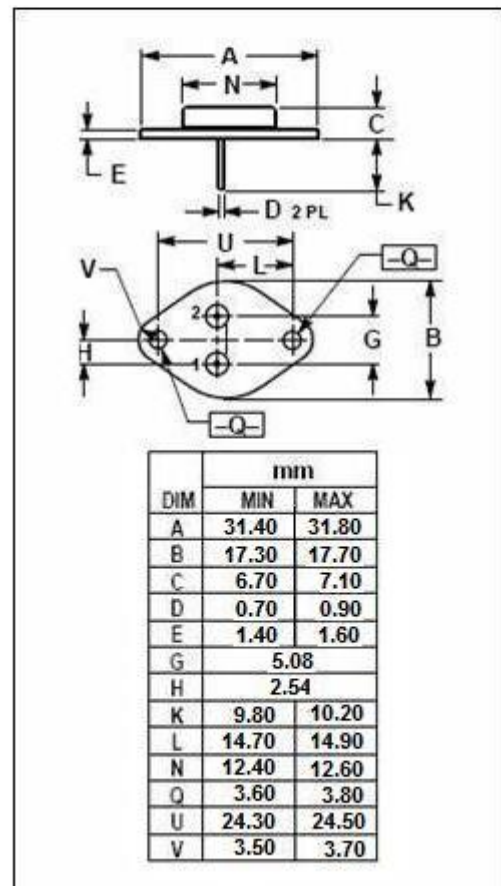
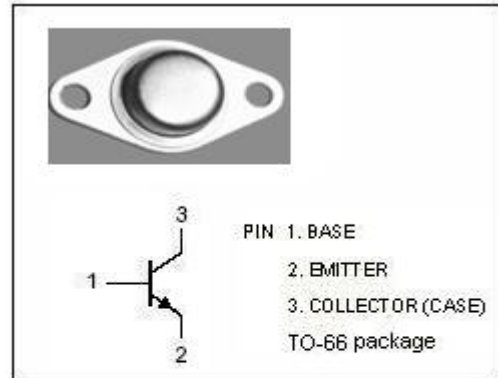
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -50V(\text{Min})$
- High Power Dissipation-
: $P_C = 25W(\text{Max}) @ T_C = 25^\circ\text{C}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio power amplifier and regulator applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current-Continuous	-3	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1.5	W
	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	25	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$



isc Silicon PNP Power Transistors**2SB503****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 = -30mA; I _B = 0	-50			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -0.1mA; I _E = 0	-70			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -1mA; I _C = 0	-8			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -3A; I _B = -0.3A			-1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -3A; I _B = -0.3A			-1.8	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -50V; I _E = 0			-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -8V; I _C = 0			-100	μ A
h _{FE-1}	DC Current Gain	I _C = -0.5A; V _{CE} = -5V	30		280	
h _{FE-2}	DC Current Gain	I _C = -2.5A; V _{CE} = -5V	15			

◆ **h_{FE} Classifications**

R	O	Y
30-70	50-140	100-280

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