

isc Silicon PNP Power Transistor

2SB538

DESCRIPTION

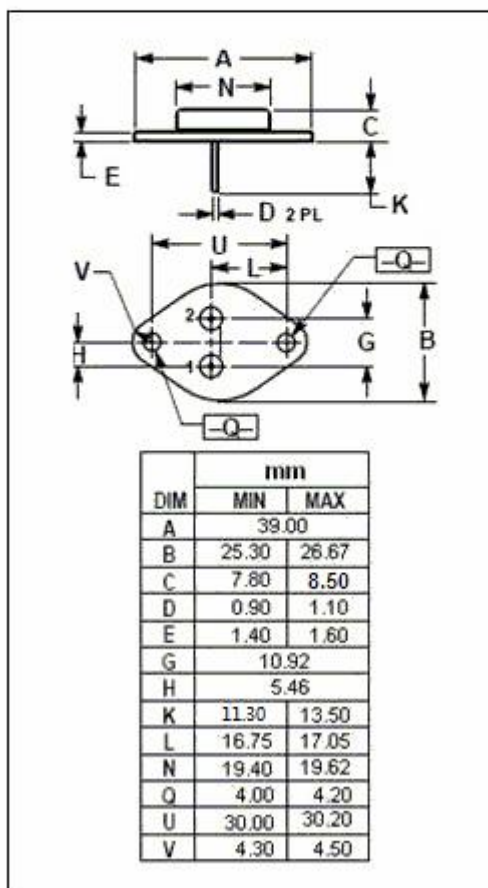
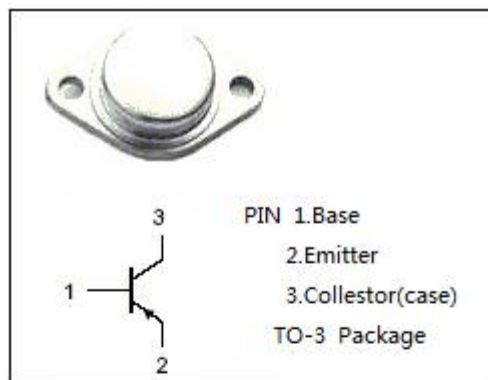
- Collector-Emitter Sustaining Voltage-
: $V_{CE(SUS)} = -65V(\text{Min})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -2.0V(\text{Max.}) @ I_C = -10A$
- Wide area of safe operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-65	V
V_{CEO}	Collector-Emitter Voltage	-65	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current-Continuous	-15	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	75	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -10mA; I _B = 0	-65			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -1mA; I _C = 0	-5			V
V _{(BR)CBO}	Collector-Base breakdown voltage	I _C =-1mA; I _E = 0	-65			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -10A; I _B = -1A			-2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -10A; I _B = -1A			-2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -65V; I _E = 0			-100	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = -65V; I _B = 0			-100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7V; I _C = 0			-10	μ A
h _{FE-1}	DC Current Gain	I _C = -2A; V _{CE} = -5V	40		140	
h _{FE-2}	DC Current Gain	I _C = -10A; V _{CE} = -5V	20			
f _T	Current-Gain—Bandwidth Product	I _C =-0.5A ; V _{CE} = -10V		15		MHz

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