

isc Silicon PNP Power Transistor
2SA1389
DESCRIPTION

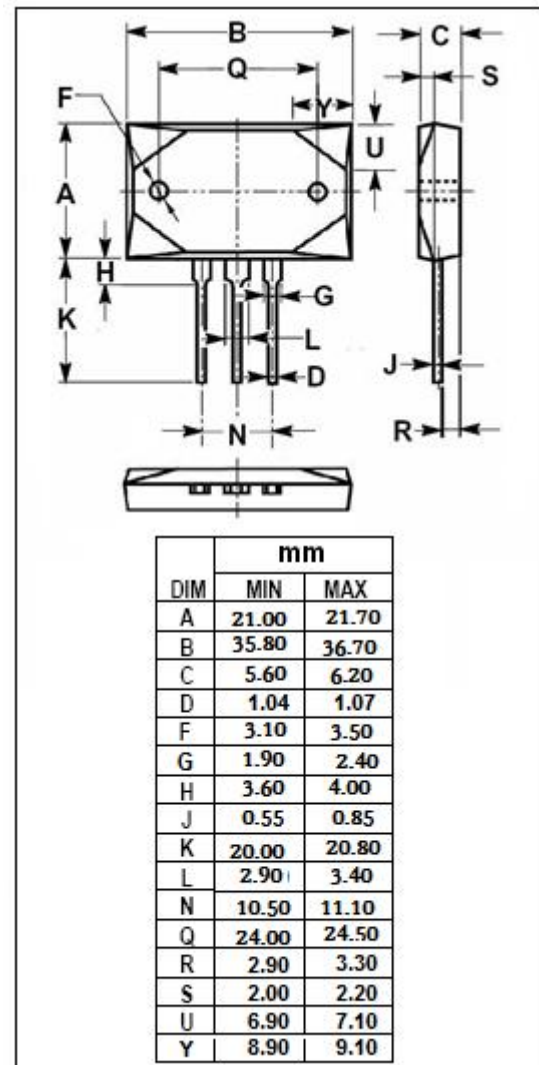
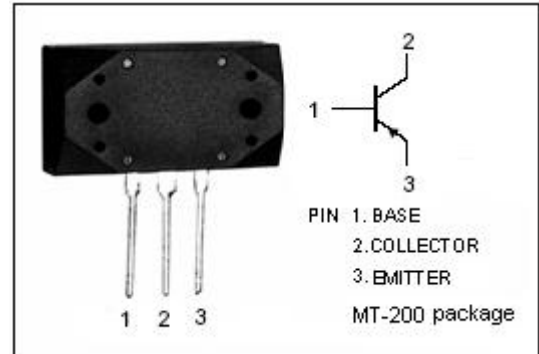
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -160V(\text{Min})$
- High Speed Switching
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High frequency power amplifiers
- Audio power amplifiers
- Switching regulators
- DC-DC converters

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-160	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-12	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	120	W
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; I _B = 0	-160			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _E = -50 μ A; I _C = 0	-7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -5A; I _B = -0.5A			-1.8	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -5A; V _{CE} = -5V			-1.7	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -160V; I _E = 0			-50	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = -160V; I _B = 0			-1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7V; I _C = 0			-50	μ A
h _{FE-1}	DC Current Gain	I _C = -1A; V _{CE} = -5V	60		200	
h _{FE-2}	DC Current Gain	I _C = -7A; V _{CE} = -5V	40			
f _T	Current-Gain—Bandwidth Product	I _E = 1A; V _{CE} = -10V		30		MHz

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