

isc Silicon NPN Power Transistor
2SD1037
DESCRIPTION

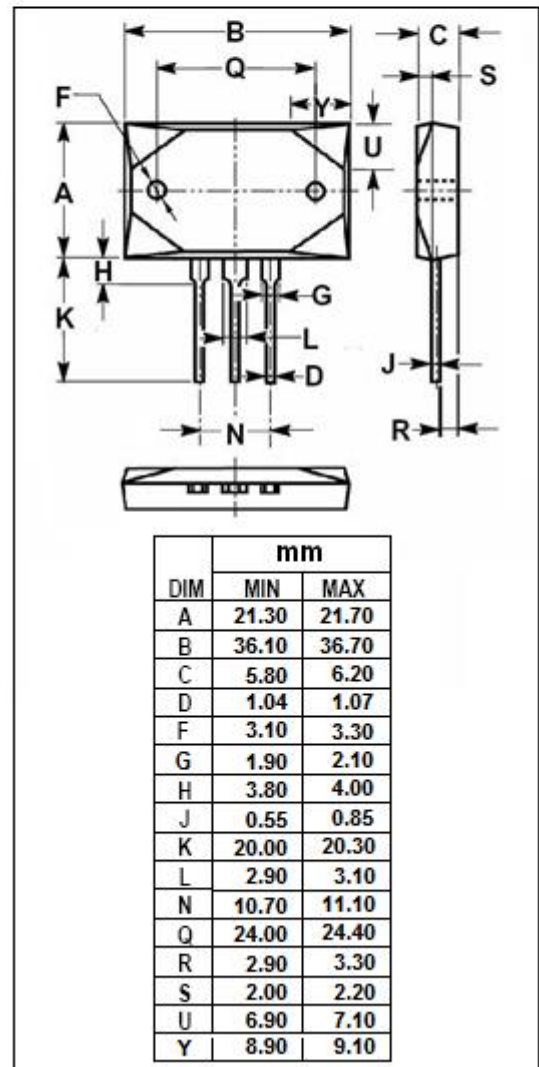
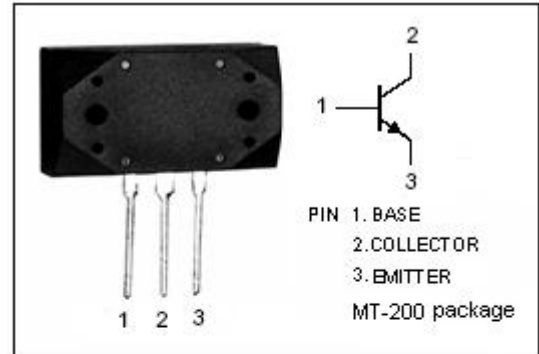
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = 150V(\text{Min})$
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	30	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	180	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 = 30mA ; I _B = 0	120			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 10A; I _B = 1A			0.5	V
V _{bE(sat)}	Base-Emitter Saturation Voltage	I _c = 10A; I _B = 1A			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 80V; I _E = 0			5	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0			5	μ A
h _{FE}	DC Current Gain	I _c = 10A; V _{CE} = 4V	20			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		210		pF
f _T	Current-Gain—Bandwidth Product	I _E = -2A; V _{CE} = 12V		1.5		MHz

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