

isc Silicon NPN Power Transistor**2SD907****DESCRIPTION**

- High Collector Current
- Good Linearity of h_{FE}
- High Reliability
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

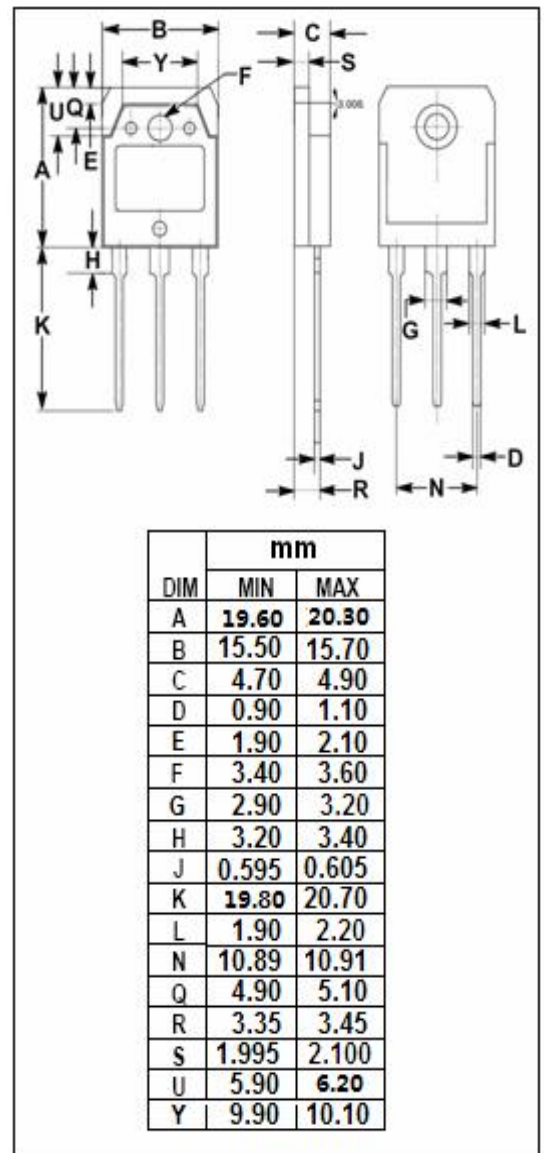
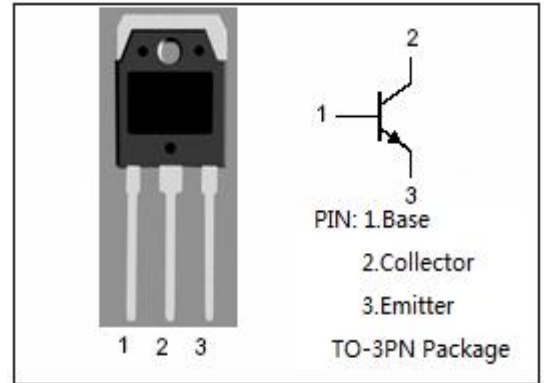
- Audio amplifier
- Series regulators
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base voltage	7	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	80	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\text{jc}}$	Thermal Resistance, Junction to Case	1.56	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**2SD907****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 = 10mA; I _B = 0	80			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 0.1mA; I _E = 0	80			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 0.1mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			1.2	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 80V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			0.1	mA
h _{FE}	DC Current Gain	I _C = 2A; V _{CE} = 5V	40			

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