

isc Silicon NPN Power Transistor

2SC5200

DESCRIPTION

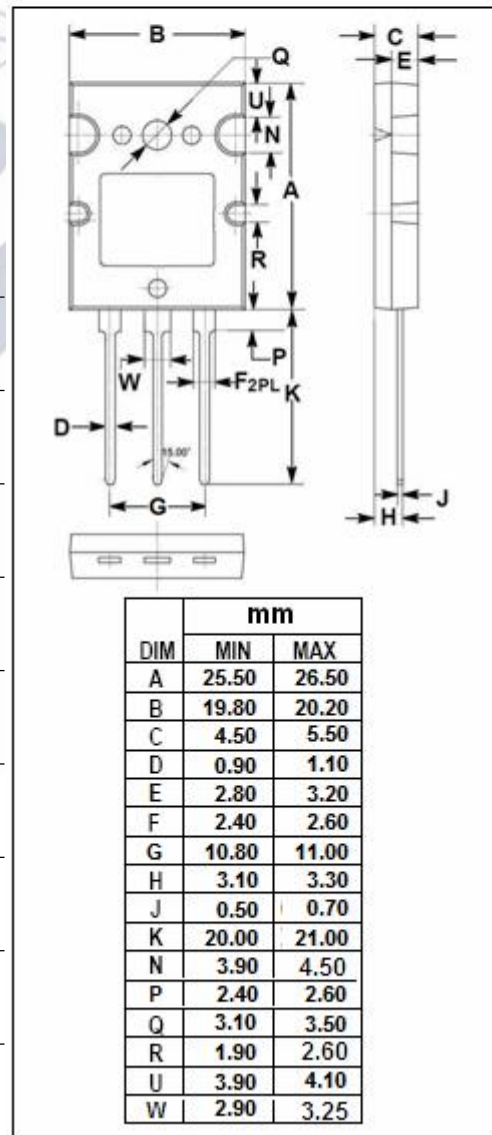
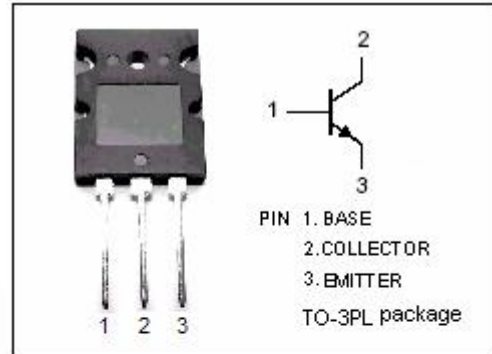
- High Current Capability
- High Power Dissipation
- High Collector-Emitter Breakdown Voltage:
: $V_{(BR)CEO} = 230V(\text{Min})$
- Complement to Type 2SA1943
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications
- Recommend for 100W high fidelity audio frequency amplifier output stage applications

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	230	V
V_{CEO}	Collector-Emitter Voltage	230	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	150	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature Range	-55~150	°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 = 50mA ; I _B = 0	230			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 8.0A; I _B = 0.8A		0.4	3.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 7A ; V _{CE} = 5V		1.0	1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 230V ; I _E = 0			5	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5	μ A
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	55		160	
h _{FE-2}	DC Current Gain	I _C = 7A ; V _{CE} = 5V	35			
C _{OB}	Output Capacitance	I _E =0 ; V _{CB} = 10V;f= 1.0MHz	200			pF
f _T	Current-Gain—Bandwidth Product	I _C =1A ; V _{CE} = 5V		30		MHz

◆ **h_{FE-1} Classifications**

R	O
55-110	80-160