

isc Silicon NPN Power Transistor
2SC5198
DESCRIPTION

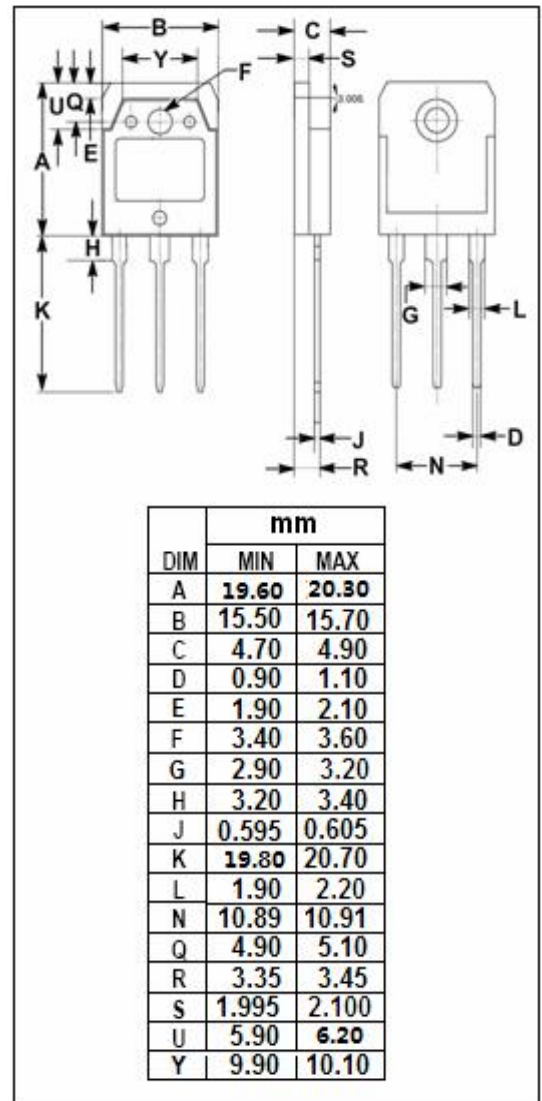
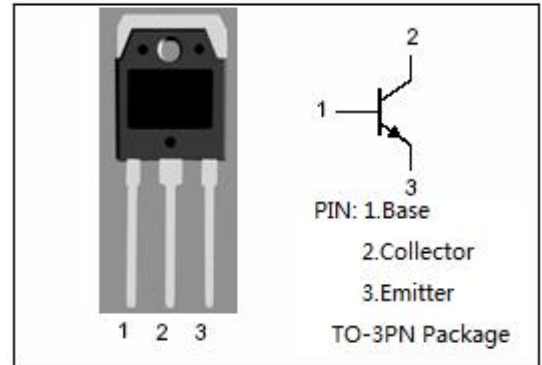
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 2.0V(\text{Min}) @ I_C = 7A$
- Good Linearity of h_{FE}
- Complement to Type 2SA1941
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications
- Recommend for 70W high fidelity audio frequency amplifier output stage applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	140	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	100	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 = 50mA ; I _B = 0	140			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 7A; I _B = 0.7A			2.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 5A ; V _{CE} = 5V			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 140V ; 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 = 5A ; V _{CE} = 5V	35			
C _{OB}	Output Capacitance	I _E =0 ; V _{CB} = 10V; f _{test} = 1.0MHz		170		pF
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 5V		30		MHz

◆ h_{FE-1} Classifications

R	0
55-110	80-160

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