

isc Silicon NPN Power Transistor

2SD198

DESCRIPTION

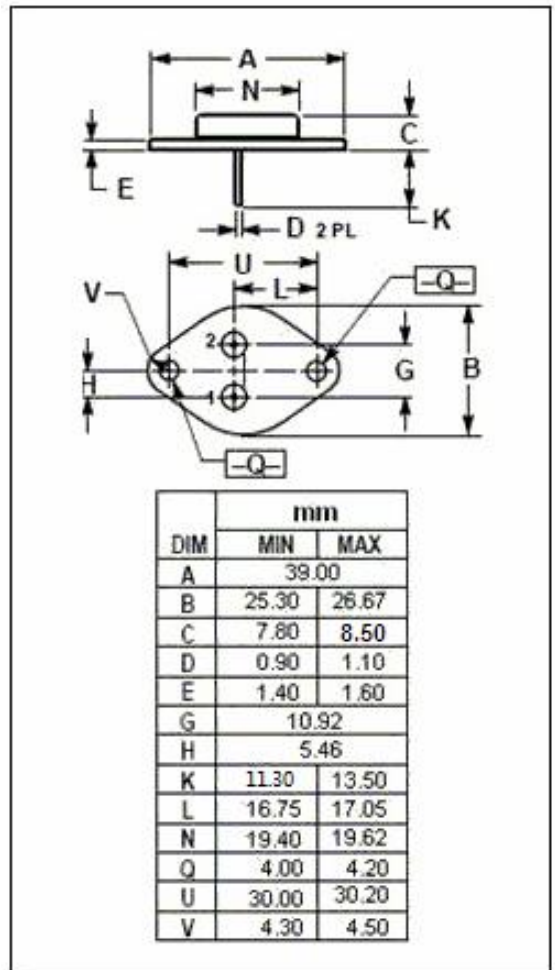
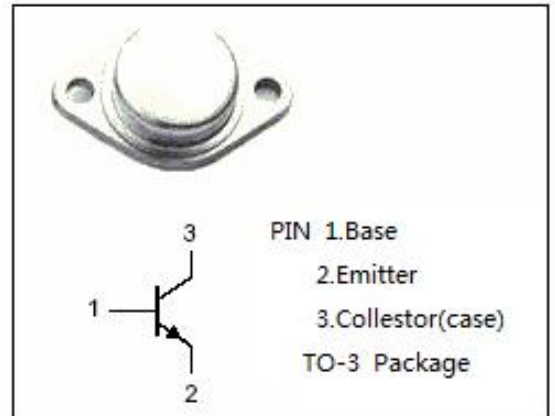
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 300V(\text{Min})$
- Excellent Safe Operating Area
- Fast Switching Speed
- With TO-3 Package
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Voltage regulator.
- Switching mode power supply.
- Inverters .

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	1	A
I_{CM}	Collector Current-Peak	2	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	25	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _B = 0	300		
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	300		
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6		
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A		1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 300V; I _E = 0		0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 300V; I _B = 0		0.5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0		0.1	mA
h _{FE}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	30	300	
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V	25		MHz

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