

isc Silicon NPN Power Transistor
2SC3998
DESCRIPTION

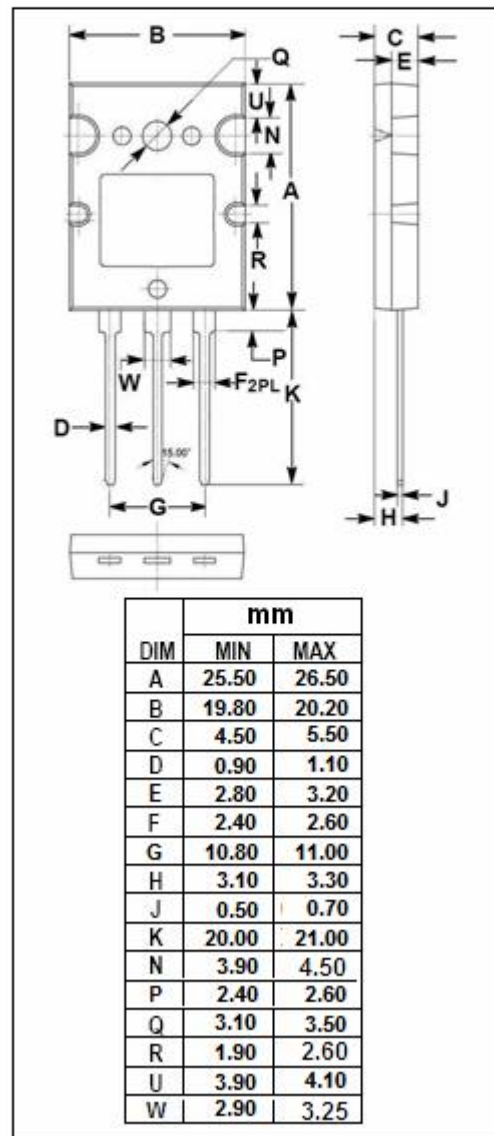
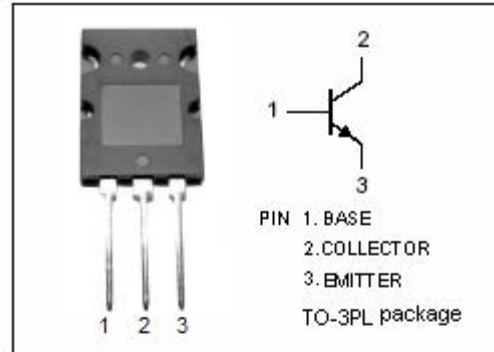
- High Switching Speed
- High Breakdown Voltage-
: $V_{(BR)CBO} = 1500V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High voltage color display horizontal deflection output

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	20	A
I_{CM}	Collector Current-Pulse	30	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	200	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 _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA; I _B = 0	800			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 11A; I _B =2.75A			3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 11A; I _B =2.75A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1500V; I _E = 0			10	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1.0	mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V	8		30	
h _{FE-2}	DC Current Gain	I _C =11A; V _{CE} = 5V	4		8	

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