

isc Silicon NPN Power Transistor
3DD3997
DESCRIPTION

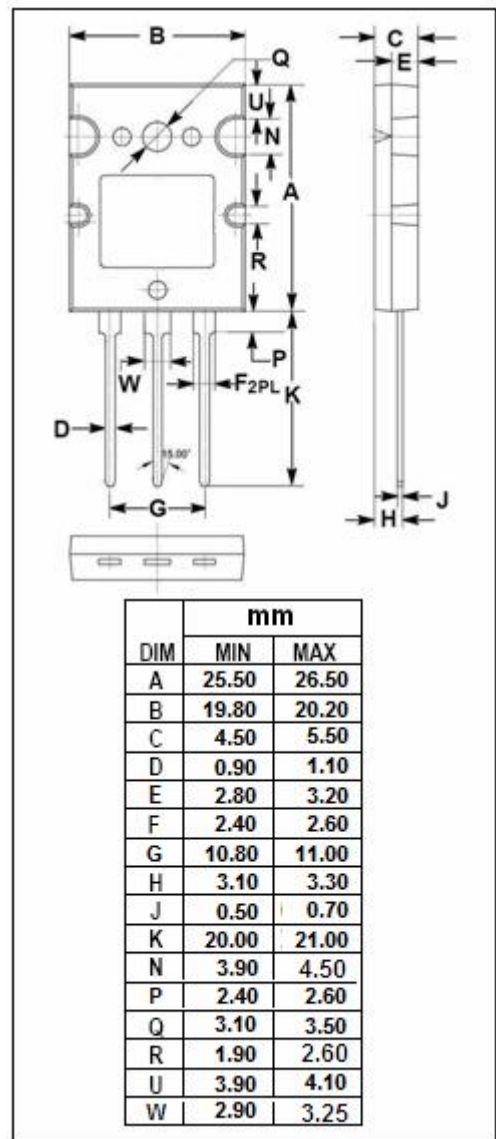
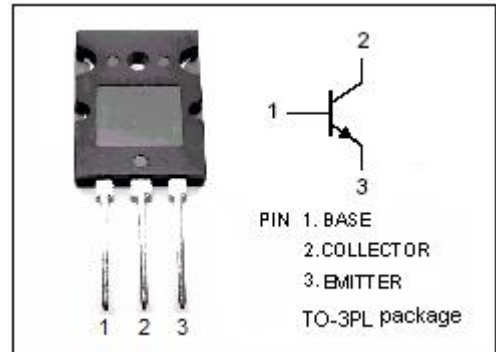
- High Switching Speed
- High Breakdown Voltage-
: $V_{(BR)CBO} = 1200V(\text{Min})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier circuit

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1200	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_{CM}	Collector Current-Pulse	60	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	250	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

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=10\text{mA}; I_B=0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=20\text{A}; I_B=4\text{A}$			1.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=20\text{A}; I_B=4\text{A}$			1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=800\text{V}; I_B=0$			50	μA
I_{CBO}	Collector Cutoff Current	$V_{CB}=1200\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$			10	μA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	10		30	
h_{FE-2}	DC Current Gain	$I_C=20\text{A}; V_{CE}=5\text{V}$	3			

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