

isc Silicon NPN Power Transistor
3DD7D
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.2V(\text{Max}) @ I_C = 3.75A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

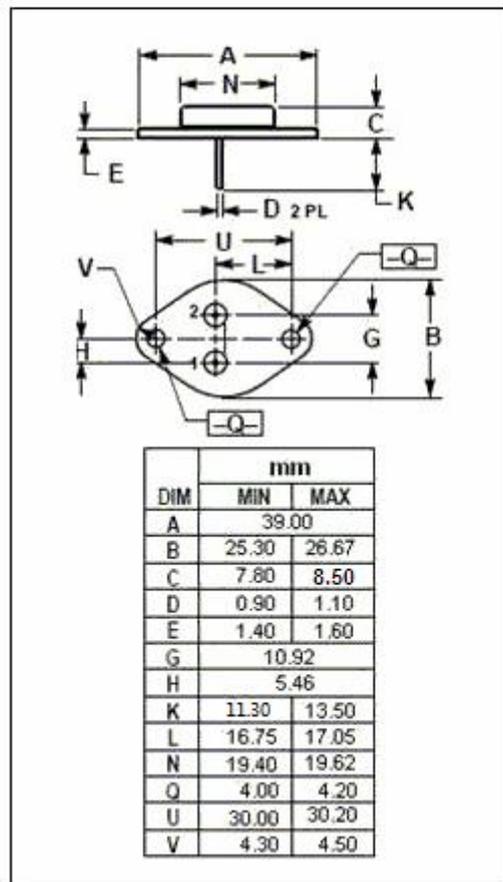
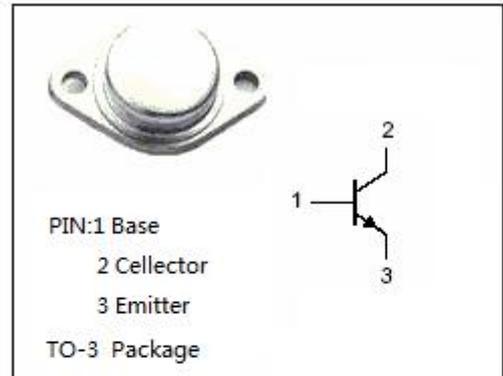
- Designed for power amplifier, low speed switching and regulated power supply applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	7.5	A
P_C	Collector Power Dissipation @ $T_C=75^\circ\text{C}$	75	W
T_J	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.33	$^\circ\text{C/W}$



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 = 3mA; I _B = 0	200			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 2mA; I _C = 0	5			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 3mA; I _E = 0	250			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3.75A; I _B = 0.38A			1.2	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 30V; I _B = 0			1.0	mA
h _{FE}	DC Current Gain	I _C = 3.75A; V _{CE} = 10V	15		180	

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