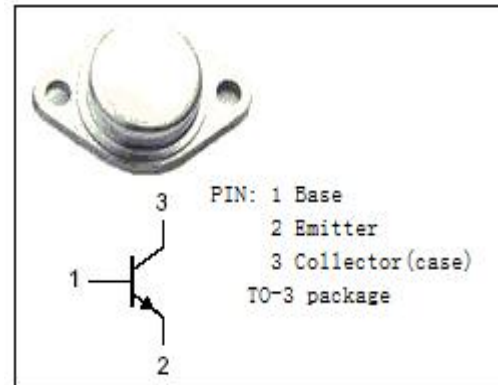


isc Silicon NPN Power Transistor
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DESCRIPTION

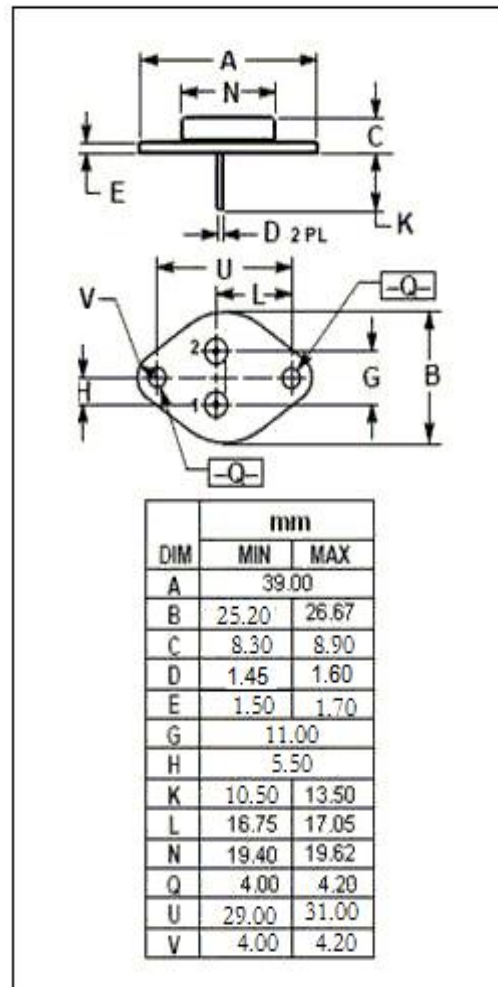
- High Current Capability
- Fully characterized at 125°C
- Fast switching speed
- Motor control
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Intended for use in high frequency and efficiency converters such as motor controllers and industrial equipment.


Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CEV}	Collector-Emitter Voltage (V _{BE} = -1.5V)	300	V
V _{CEO}	Collector-Emitter Voltage	200	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	50	A
I _{CM}	Collector Current-Peak	75	A
I _B	Base Current-Continuous	8	A
I _{BM}	Base Current-peak	15	A
P _C	Collector Power Dissipation @T _C =25°C	250	W
T _j	Junction Temperature	200	°C
T _{stg}	Storage Temperature Range	-65~200	°C


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.7	°C/W

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; I _B = 0	200		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 50mA; I _C = 0	7		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 12.5A; I _B = 0.625A I _C = 12.5A; I _B = 0.625A; T _J = 100°C		0.9 1.2	V
V _{CE (sat)-2}	Collector-Emitter Saturation Voltage	I _C =25A; I _B = 2.5A I _C =25A; I _B = 2.5A; T _J = 100°C		0.9 1.5	V
V _{CE (sat)-3}	Collector-Emitter Saturation Voltage	I _C =40A; I _B = 5A I _C =40A; I _B = 5A; T _J = 100°C		1.2 1.9	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C =25A; I _B = 2.5A I _C =25A; I _B = 2.5A; T _J = 100°C		1.4 1.7	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C =40A; I _B = 5A I _C =40A; I _B = 5A; T _J = 100°C		1.8 1.8	V
I _{CER}	Collector Cutoff Current	V _{CE} = 300V; R _{BE} = 10 Ω V _{CE} = 300V; T _C =100°C		1 5	mA
I _{CEV}	Collector Cutoff Current	V _{CE} = 300V; V _{BE} = -1.5V V _{CE} =300V; T _C =100°C		1 4	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		1.0	mA

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