

isc Silicon NPN Power Transistors
BU126
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CE0(SUS)} = 300V(\text{Min.})$
- Collector Current- $I_C = 3A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

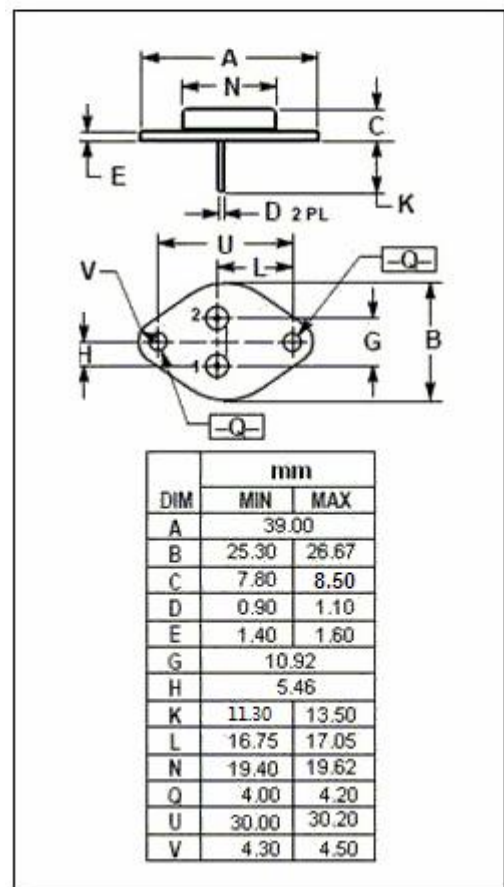
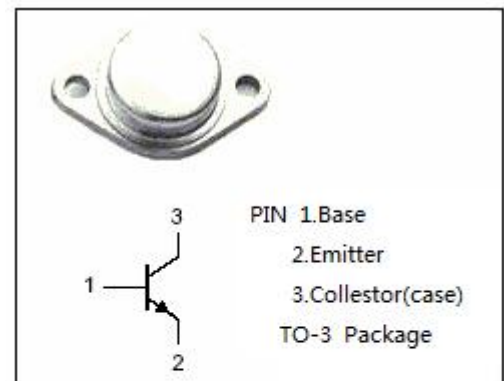
- Designed for use in regulator, inverter, switching mode power supply.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	750	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	6	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	40	W
T_j	Junction Temperature	125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~125	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	2.5	$^\circ\text{C/W}$



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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 = 50mA; I _B = 0	300			V
V _{(BR)EBO}	Collector-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.25A			10	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 1A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 1A			1.5	V
I _{CES}	Collector Cutoff Current	V _{CE} = 750V; V _{BE} = 0 V _{CE} = 750V; V _{BE} = 0; T _a = 125°C			0.5 2.0	mA
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 15V	15			
f _T	Current-Gain—Bandwidth Product	I _C = 0.2A; V _{CE} = 10V		10		MHz
t _f	Fall Time	I _C = 2.5A; I _B = 0.25A		0.2		μs

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