

isc Silicon NPN Power Transistor
BUX47
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

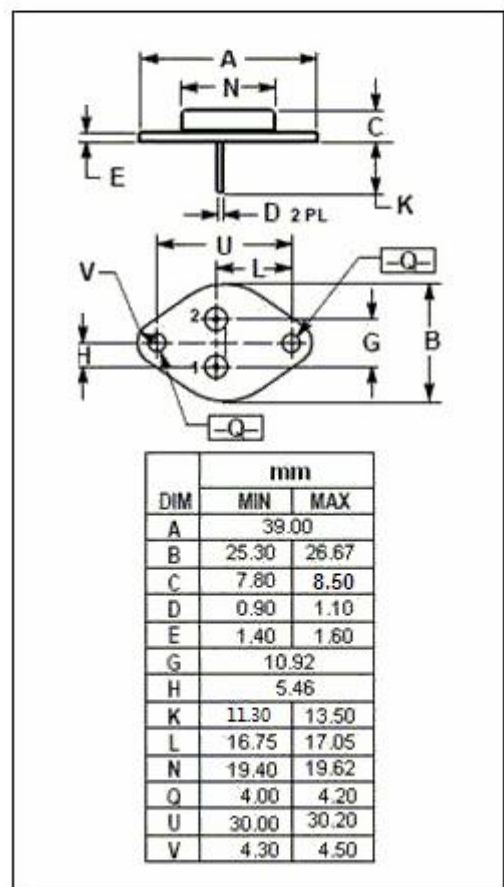
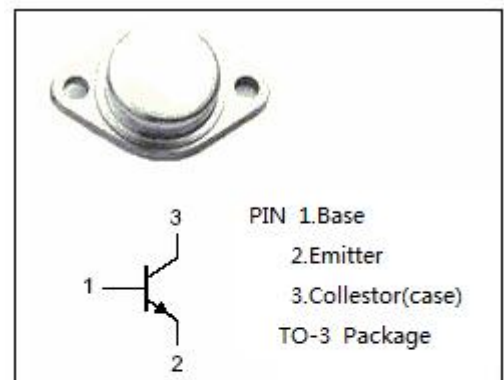
Designed for high voltage, fast switching applications.

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage ($R_{BE} = 10 \Omega$)	850	V
V_{CES}	Collector-Emitter Voltage ($V_{BE} = 0$)	850	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	9	A
I_{CM}	Collector Current-Peak $t_p < 5ms$	15	A
I_B	Base Current-Continuous	8	A
I_{BM}	Base Current-peak $t_p < 5ms$	10	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	125	W
T_j	Junction Temperature	175	°C
T_{stg}	Storage Temperature Range	-65~175	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.2	°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	400		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 50mA; I _C = 0	7	30	V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A		1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 9A; I _B = 3A		3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A		1.6	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 850V; I _E = 0 V _{CB} = 850V; I _E = 0; T _c =125°C		0.4 3	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		1.0	mA

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