

isc Silicon NPN Power Transistor
BUV48B
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 600V$ (Min)
- High Current Capability
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

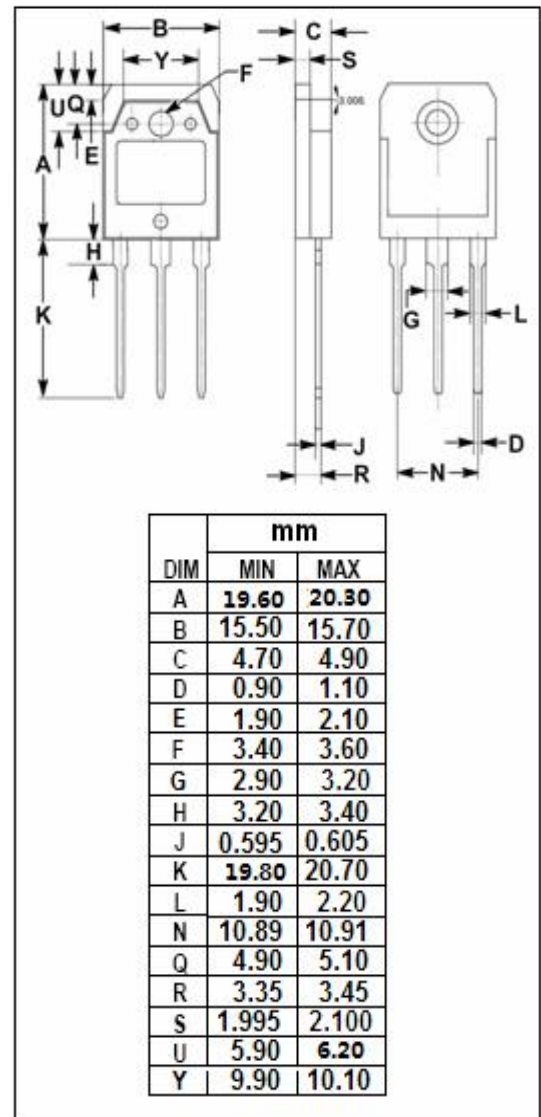
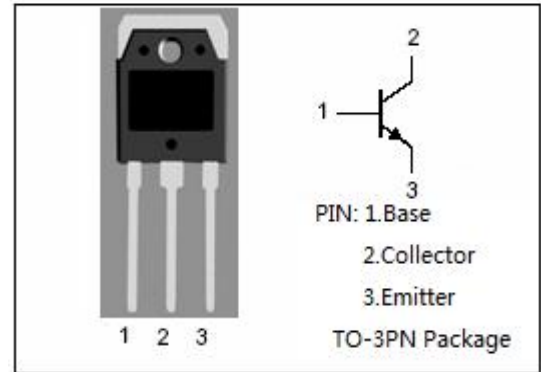
- Designed for switching and industrial applications from single and three-phase mains.

Absolute maximum ratings($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1200	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak $t_p < 5ms$	30	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-peak $t_p < 5ms$	20	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ C$	125	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



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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	600		V
V _{CER(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 0.5A; L= 2mH; V _{clamp} = 1200V R _{BE} = 10 Ω	1200		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.5A		1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 4A		3.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.5A		1.5	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 4A		2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1200V ; I _B = 0		0.5	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 600V; I _B = 0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0		1.0	mA

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