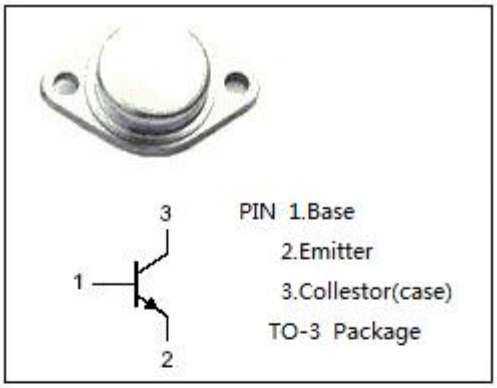
isc Silicon NPN Power Transistor — BUX48C

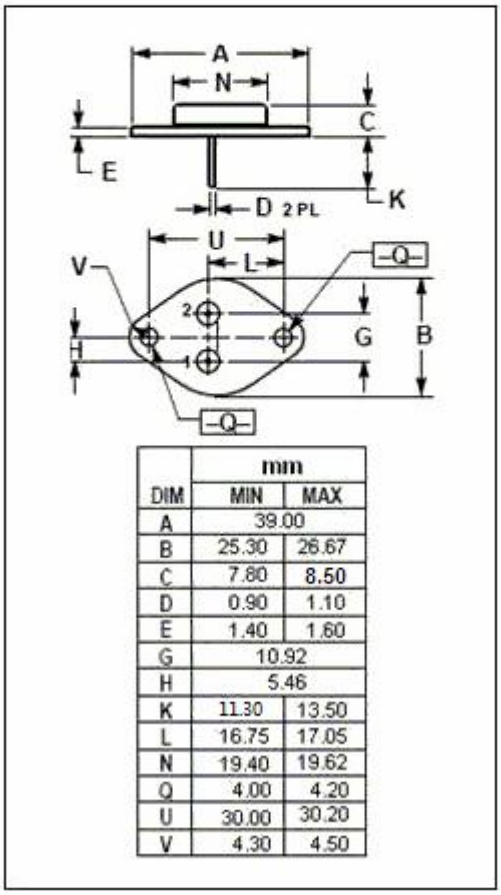
DESCRIPTION

- High Voltage 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.





DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage R_{BE}= 10Ω	1200	V
V_{CES}	Collector-Emitter Voltage V_{BE}= 0	1200	V
V_{CEO}	Collector-Emitter Voltage	700	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_{CP}	Collector Current-Peak t_p<20 μs	55	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-peak	20	A
P_C	Collector Power Dissipation @T_C=25℃	175	W
T_j	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~200	℃

THERMAL CHARACTERISTICS

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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	700		V
$V_{CBO(SUS)}$	Collector-Emitter Sustaining Voltage	I_E= 1mA; I_B= 0	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_E= 0 V_{CB}= 1200V; I_E= 0; T_C=125℃		0.5 3	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 700V; I_B= 0		1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0		1	mA