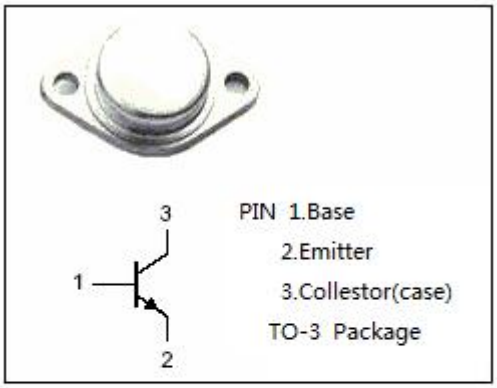
isc Silicon NPN Power Transistor — BUX47

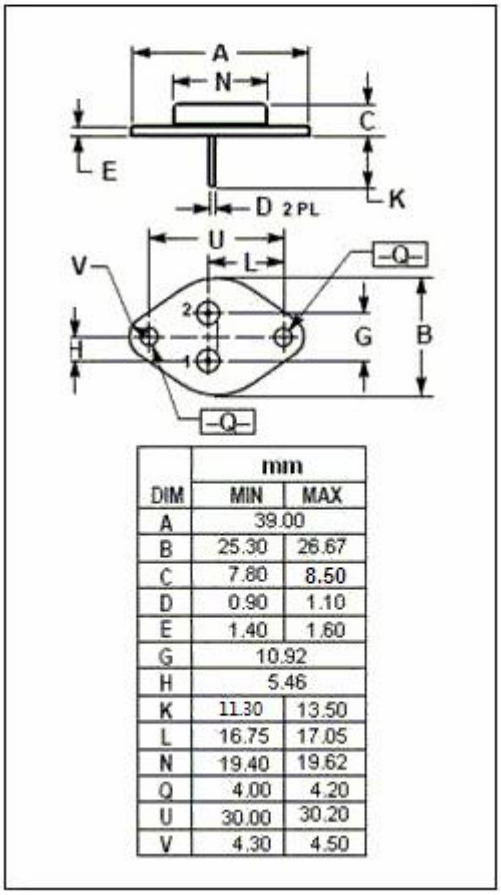
DESCRIPTION

- 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.





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)	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℃	125	W
T_j	Junction Temperature	175	℃
T_{stg}	Storage Temperature Range	-65~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.2	℃/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	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℃		0.4 3	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		1.0	mA