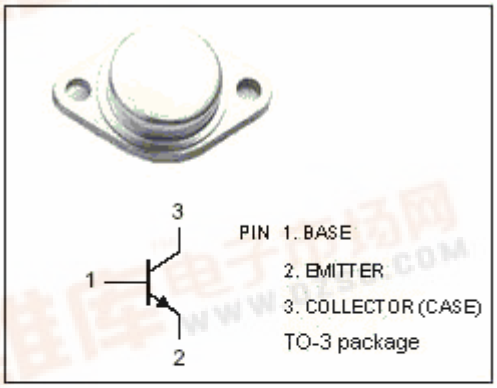
isc Silicon NPN Power Transistor BUX47A

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 450V (Min)
- Fast Switching Speed

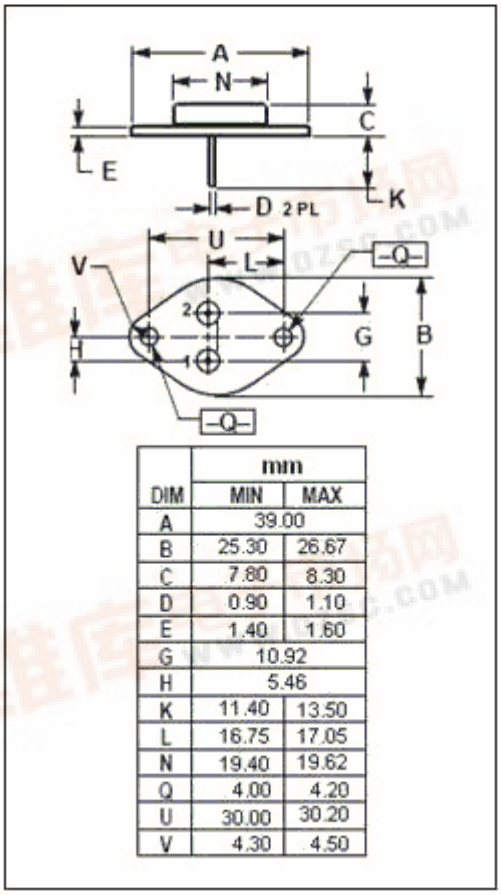


APPLICATIONS

Designed for high voltage, fast switching applications.

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage (R_{BE}= 10Ω)	1000	V
V_{CES}	Collector-Emitter Voltage (V_{BE}= 0)	900	V
V_{CEO}	Collector-Emitter Voltage	450	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	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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

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= 0.2A; I_B= 0; L= 25mH	450		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= 5A; I_B= 1A		1.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 2.5A		3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 1A		1.6	V
I_{CER}	Collector Cutoff Current	V_{CE}= 850V; R_{BE}= 10Ω V_{CE}= 850V; R_{BE}= 10Ω; T_C=125℃		0.4 3	mA
I_{CEV}	Collector Cutoff Current	V_{CE}=850V; V_{BE}= -2.5V V_{CE}=850V; V_{BE}= -2.5V; T_C=125℃		0.15 1.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		1.0	mA
Switching times Resistive Load					
t_{on}	Turn-on Time	I_C= 5A; I_{B1}=-I_{B2}= 1A; V_{CC}= 150V		0.7	μs
t_s	Storage Time			3.0	μs
t_f	Fall Time			0.8	μs