isc Silicon NPN Power Transistor — BUX33A

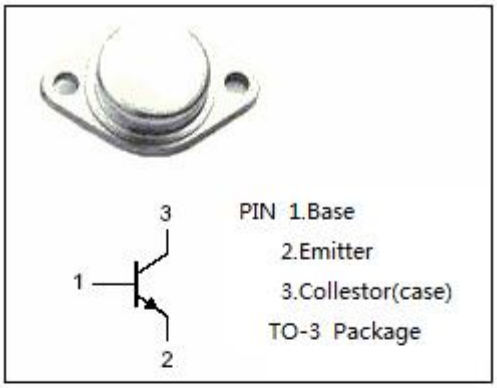
DESCRIPTION

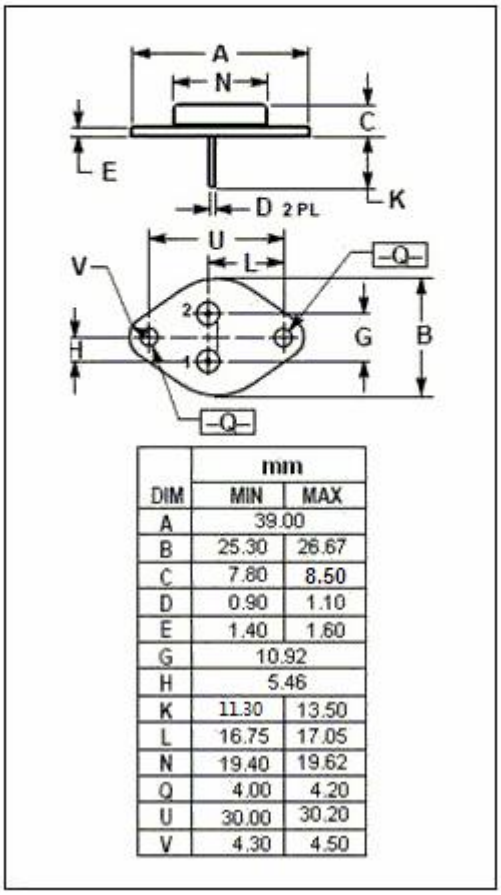
Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)}$= 450V(Min.)

- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Converters
- Inverters
- Switching regulators
- Motor controls





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(T_a=25℃)

SYMBOL	PARAMETER	MAX	UNIT
V_{CEV}	Collector-Emitter Voltage V_{BE}= 1.5V	900	V
V_{CER}	Collector-Emitter Voltage R_{BE}= 10Ω	900	V
V_{CEX}	Collector-Emitter Voltage V_{BE}= -1.5V	500	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	12	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation @T_C=25℃	150	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

isc Silicon NPN Power Transistor BUX33A

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=50mA; I_B= 0	450			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 2A			1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 12A; I_B= 3A			4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 2A			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}=900V; I_E= 0 V_{CB}=900V; I_E= 0;T_C= 100℃			0.1 1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 8V; I_C= 0			2.0	mA
h_{FE}	DC Current Gain	I_C= 8A; V_{CE}= 3V	6		40	