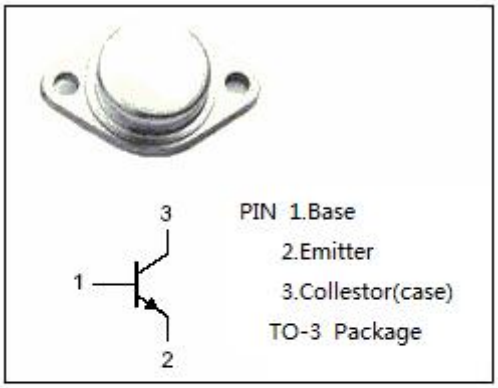
isc Silicon NPN Power Transistors — BUX80

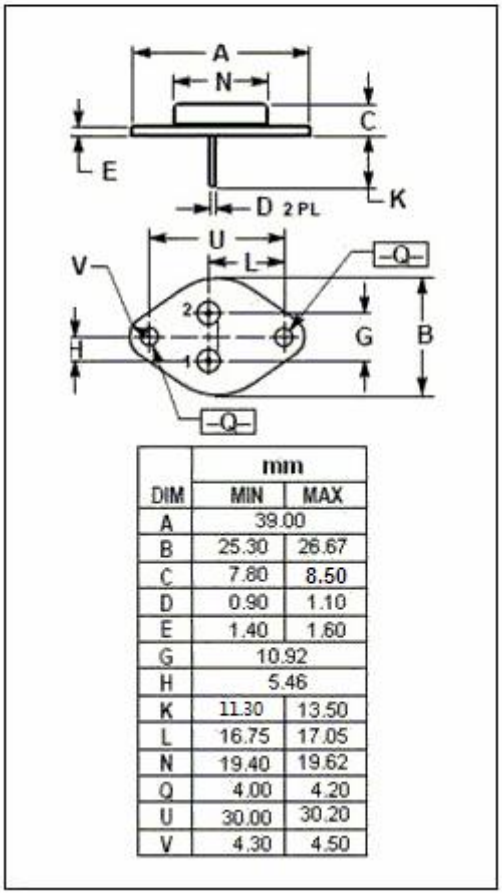
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 400V(Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching regulators
- Motor control
- High frequency and efficiency converters





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	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage V_{BE}= 0	800	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{CER}	Collector-Emitter Voltage R_{BE}= 50Ω	500	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @T_C=25℃	100	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.1	℃/W

isc Silicon NPN Power Transistors BUX80

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	400			V
$V_{CBO(SUS)}$	Collector-Base Sustaining Voltage	I_C= 1mA; I_E= 0	800			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
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 1A			1.4	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 2.5A			1.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}=800V; I_E= 0 V_{CB}=800V; I_E= 0,T_C=125℃			1.0 3.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 10V; I_C= 0			10	mA
h_{FE}	DC Current Gain	I_C= 1.2A; V_{CE}= 5V		30		