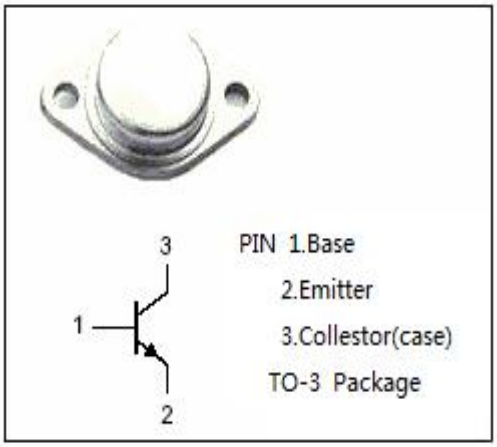
isc Silicon NPN Power Transistors — BUX46/A

DESCRIPTION

High Switching Speed

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 400V (Min)-BUX46
  450V (Min)-BUX46A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

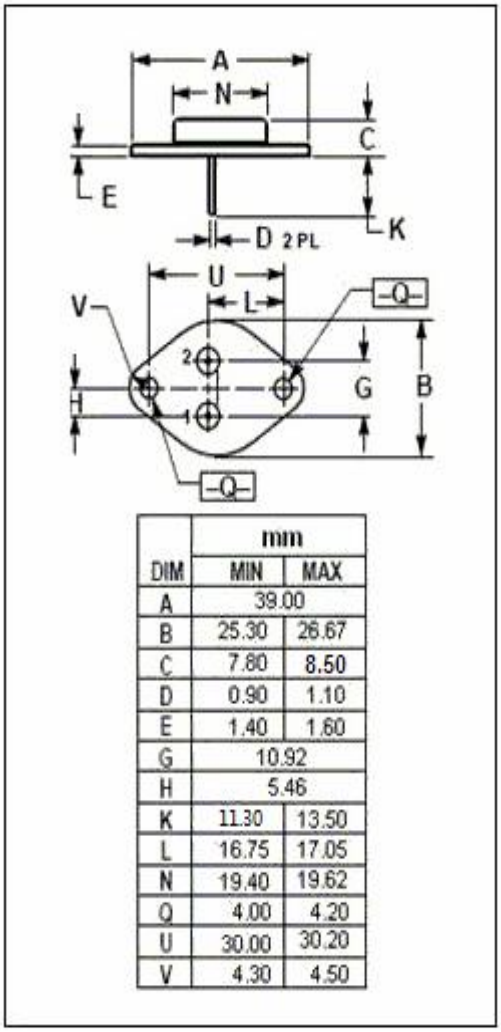


APPLICATIONS

- Designed for use in converters, inverters, switching regulators, motor control systems etc.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		MAX	UNIT
V_{CES}	Collector- Emitter Voltage(V_{BE}= 0)	BUX46	850	V
		BUX46A	1000	
V_{CEO}	Collector-Emitter Voltage	BUX46	400	V
		BUX46A	450	
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current-Continuous		3.5	A
I_{CM}	Collector Current-Peak		5	A
P_C	Collector Power Dissipation @T_C=25℃		85	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	8.50
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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.75	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BUX46	I_C= 50mA ; I_B= 0	400			V
		BUX46A		450			
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage		I_E= 0.5A ; I_C= 0			30	V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage		I_C= 3.5A; I_B= 0.7A			5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage		I_C= 2.5A; I_B= 0.5A			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		I_C= 2.5A; I_B= 0.5A			1.3	V
I_{CBO}	Collector Cutoff Current		V_{CB}=V_{CESmax}; I_E= 0 V_{CB}=V_{CESmax}; I_E= 0;T_J=125℃			0.1 1	mA
I_{EBO}	Emitter Cutoff Current		V_{EB}= 5V; I_C= 0			1	mA
h_{FE}	DC Current Gain		I_C= 1A ; V_{CE}= 5V	15		50	