

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

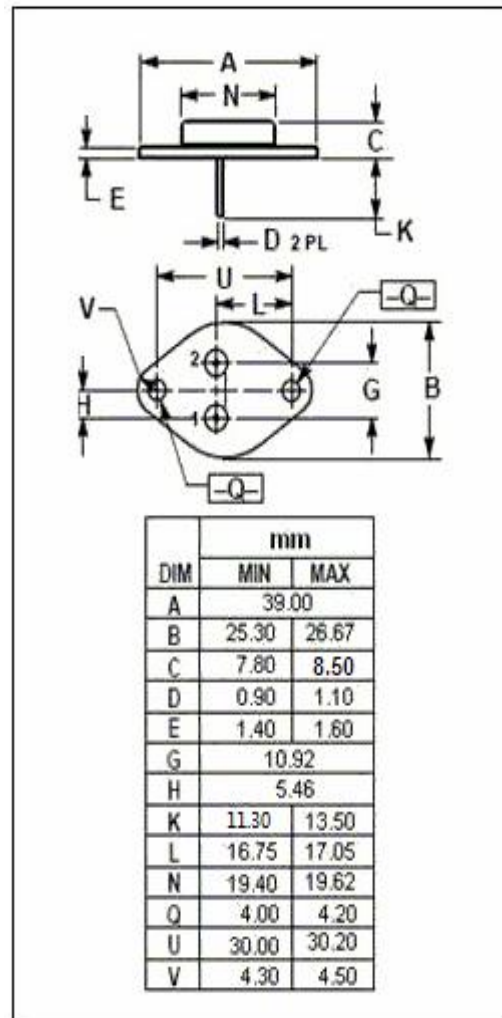
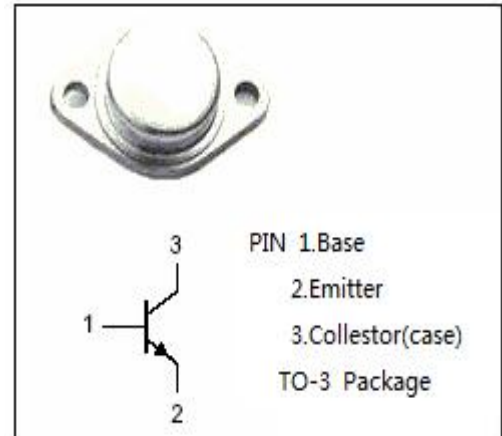
- Designed for use in converters, inverters, switching regulators, motor control systems etc.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

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 @ $T_C=25^\circ C$	85	W	
T_j	Junction Temperature	175	$^\circ C$	
T_{stg}	Storage Temperature Range	-65~175	$^\circ C$	

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

T_c=25°C 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°C			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	

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