

# isc Silicon NPN Power Transistor

# BUX47B

## DESCRIPTION

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

## APPLICATIONS

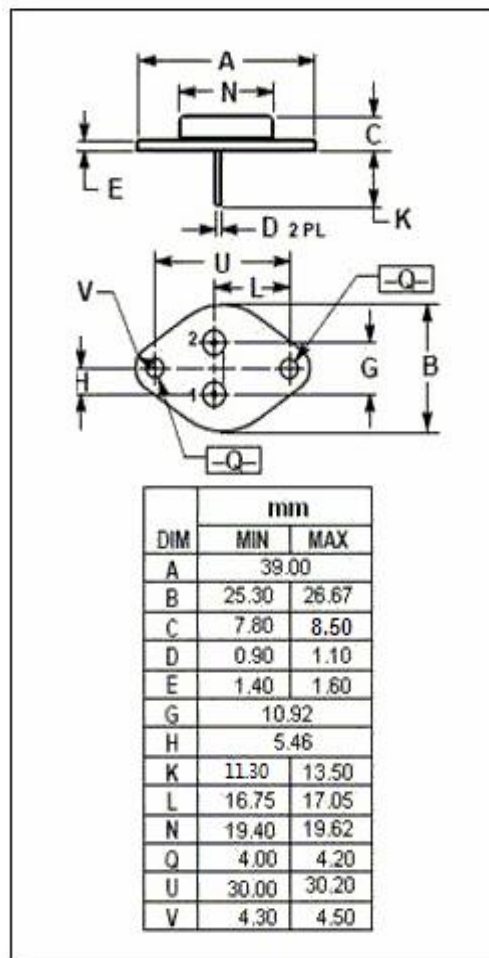
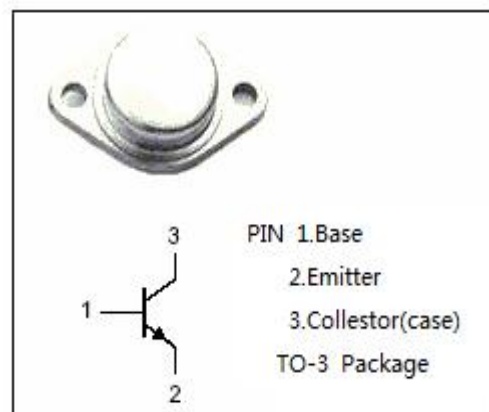
- Designed for switching mode power supplies, CRT scanning, inverters, and other industrial applications.

## Absolute maximum ratings( $T_a=25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CER}$	Collector-Emitter Voltage ( $R_{BE} = 10 \Omega$ )	850	V
$V_{CEX}$	Collector-Emitter Voltage ( $V_{BE} = -2.5V$ )	850	V
$V_{CEO}$	Collector-Emitter Voltage	400	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 @ $T_c=25^\circ C$	125	W
$T_j$	Junction Temperature	200	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~200	$^\circ C$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.4	$^\circ C/W$



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**BUX47B**
**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	400			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 50mA; I <sub>C</sub> = 0	7		30	V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 6A; I <sub>B</sub> = 1.2A			1.5	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 9A; I <sub>B</sub> = 3A			3.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 6A; I <sub>B</sub> = 1.2A			1.6	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> =850V; ; I <sub>E</sub> = 0 V <sub>CB</sub> =850V; ; I <sub>E</sub> = 0; T <sub>C</sub> =125°C			0.15 1.5	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			1.0	mA

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