

## Silicon NPN Power Transistors

## BUX47

## DESCRIPTION

www.datasheet4u.com

- With TO-3 package
- High voltage ,high speed

## APPLICATIONS

- Intended for high voltage,fast switching applications

## PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

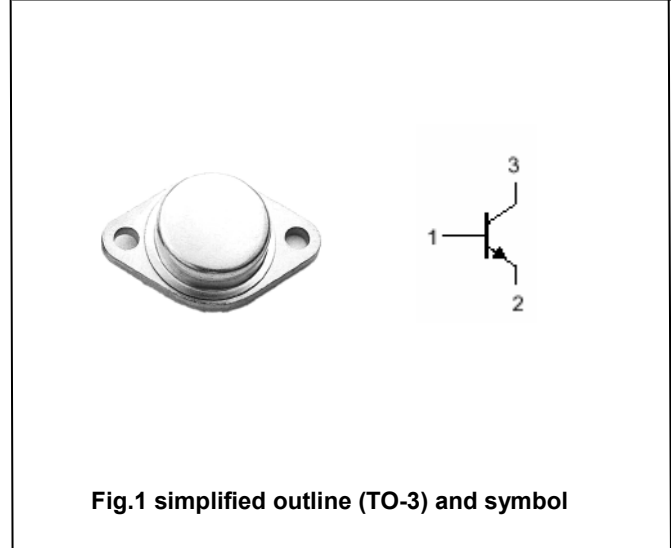


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings( $T_a = \square$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	850	V
$V_{CEO}$	Collector-emitter voltage	Open base	400	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		9	A
$I_{CM}$	Collector current-peak		15	A
$I_B$	Base current		8	A
$I_{BM}$	Base current-peak		10	A
$P_T$	Total power dissipation	$T_C = 25 \square$	125	W
$T_j$	Junction temperature		175	$\square$
$T_{stg}$	Storage temperature		-65~175	$\square$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-c}$	Thermal resistance junction to case	1.2	$\square/W$

## Silicon NPN Power Transistors

## BUX47

## CHARACTERISTICS

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

www.datasheet4u.com

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.2A; I <sub>B</sub> =0; L=25mH	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>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =6A; I <sub>B</sub> =1.2 A			1.5	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =9A; I <sub>B</sub> =3 A			3	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =6A; I <sub>B</sub> =1.2 A			1.6	V
I <sub>CEV</sub>	Collector cut-off current	V <sub>CE</sub> =850V; V <sub>BE</sub> =-2.5V T <sub>C</sub> =125°C			0.15 1.5	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =5V	15		50	

## Switching times

T <sub>on</sub>	Turn-on time	I <sub>C</sub> =6A; I <sub>B1</sub> =-I <sub>B2</sub> =1.2A; V <sub>CC</sub> =150V			0.8	μs
t <sub>s</sub>	Storage time				2.5	μs
t <sub>f</sub>	Fall time				0.8	μs

Silicon NPN Power Transistors

BUX47

PACKAGE OUTLINE

www.datasheet4u.com

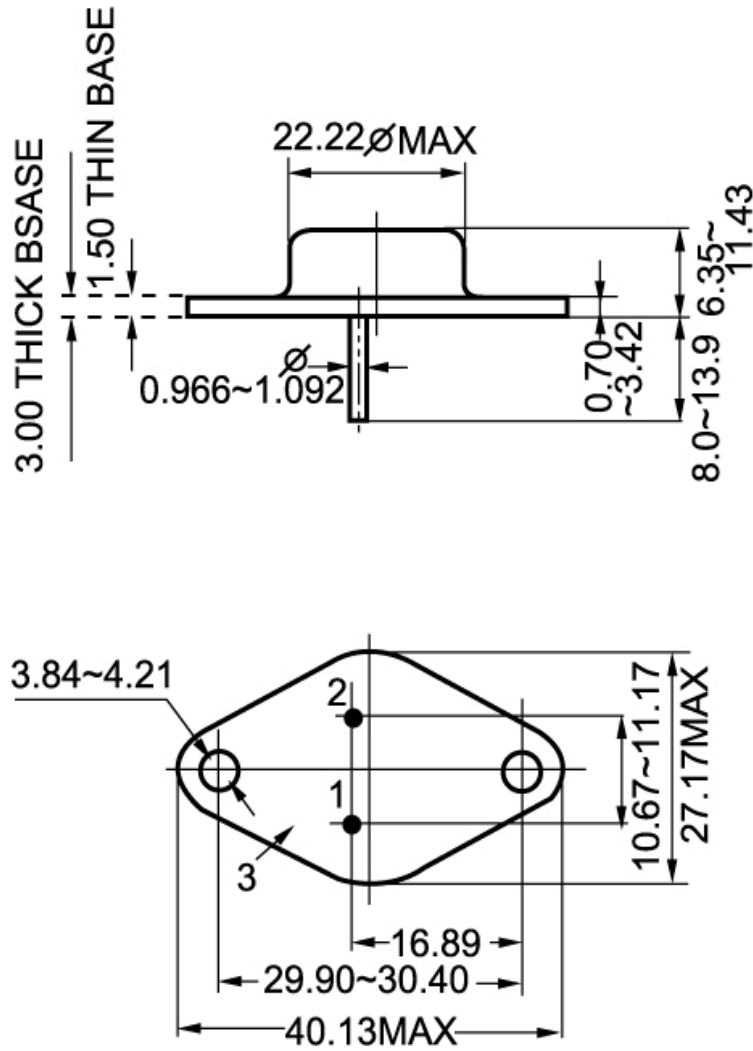


Fig.2 Outline dimensions