

Silicon NPN Power Transistors

BUX48B

DESCRIPTION

- With TO-3 package
- High voltage
- Fast switching speed

APPLICATIONS

- Intended for switching and industrial applications

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

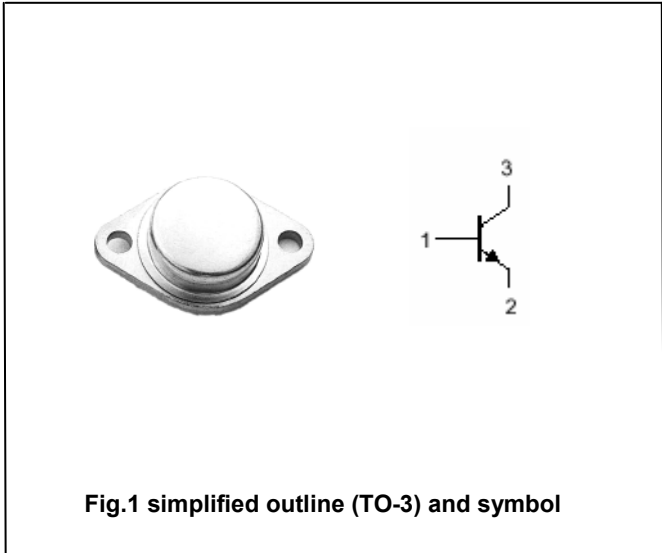


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1200	V
V _{CEO}	Collector-emitter voltage	Open base	600	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		15	A
I _{CM}	Collector current-peak (tp<5ms)		30	A
I _B	Base current		4	A
I _{BM}	Base current-peak (tp<5ms)		20	A
P _T	Total power dissipation	T _C =25□	175	W
T _j	Junction temperature		200	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.0	□/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA; I _B =0;	600			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50mA; I _C =0;	7			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =6A; I _B =1.5A			1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =10A; I _B =4A			3.0	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =6A; I _B =1.5A			1.5	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =10A; I _B =4A			2.0	V
I _{CES}	Collector cut-off current	V _{CE} =1200V; V _{BE} =-0 T _C =125 °C			0.5 3.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =600V; I _B =0			1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			1.0	mA
h _{FE}	DC current gain	I _C =1A ; V _{CE} =5V	15		50	

Switching times

t _{on}	Turn-on time	I _C =6A; I _{B1} =-I _{B2} =1.5A; V _{CC} =250V		0.5	1.0	μs
t _s	Storage time			1.5	3.0	μs
t _f	Fall time			0.2	0.7	μs

PACKAGE OUTLINE

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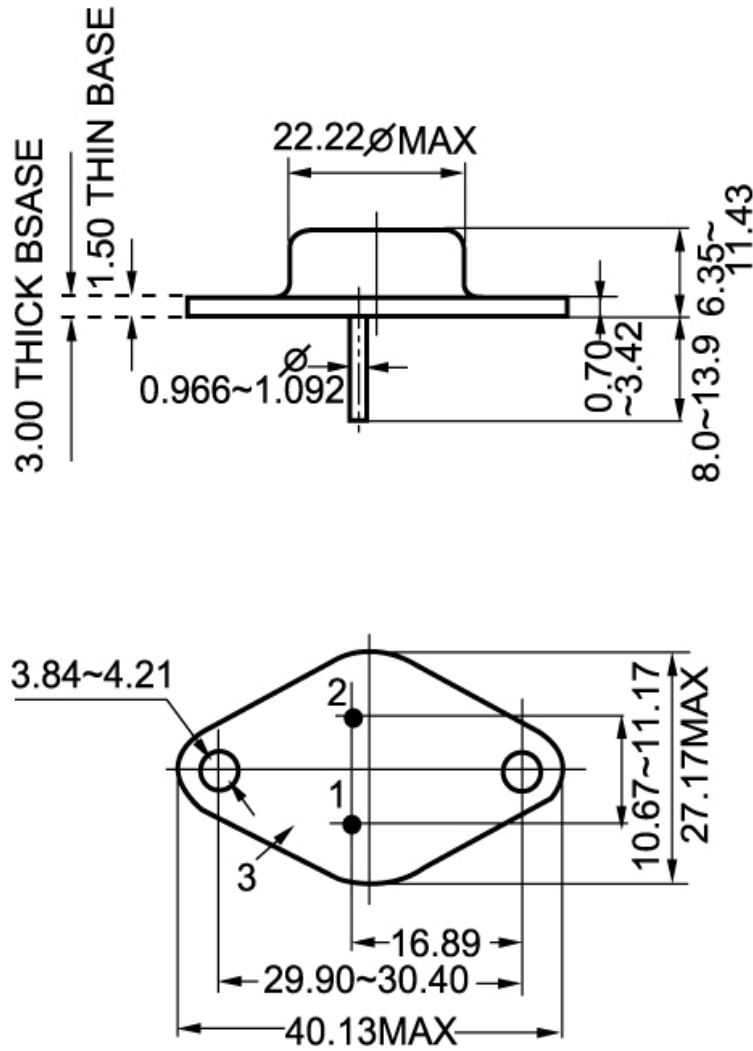


Fig.2 Outline dimensions