

Silicon NPN Power Transistors

BUX11

DESCRIPTION

- With TO-3 package
- High current capability
- Fast switching speed

APPLICATIONS

- For use in switching and linear applications

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

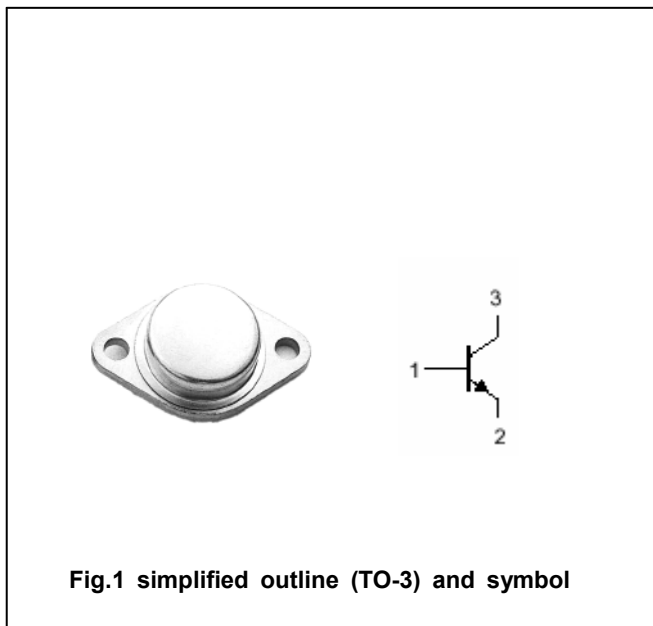


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	250	V
V _{CEO}	Collector-emitter voltage	Open base	200	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		20	A
I _{CM}	Collector current-peak	t _p =10ms	25	A
I _B	Base current		4	A
P _T	Total power dissipation	T _C =25°C	150	W
T _j	Junction temperature		200	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.17	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2mA; I _B =0	200			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 =6 A; I _B =0.6A			0.6	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =12 A; I _B =1.5 A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =12 A; I _B =1.5 A			1.5	V
I _{CEx}	Collector cut-off current	V _{CE} =250V; V _{BE} =-1.5V T _C =125 °C			1.5 6.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =160V; I _B =0			1.5	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	I _C =6A ; V _{CE} =2V	20		60	
h _{FE-2}	DC current gain	I _C =12A ; V _{CE} =4V	10			
f _T	Transition frequency	I _C =1A ; V _{CE} =15V; f=10MHz	8.0			MHz

Switching times

t _{on}	Turn-on time	I _C =12A ; I _{B1} =1.5A V _{CC} =150V			1.0	μs
t _s	Storage time	I _C =12A ; I _{B1} =-I _{B2} =1.5A V _{CC} =150V			1.8	μs
t _f	Fall time				0.4	μs

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PACKAGE OUTLINE

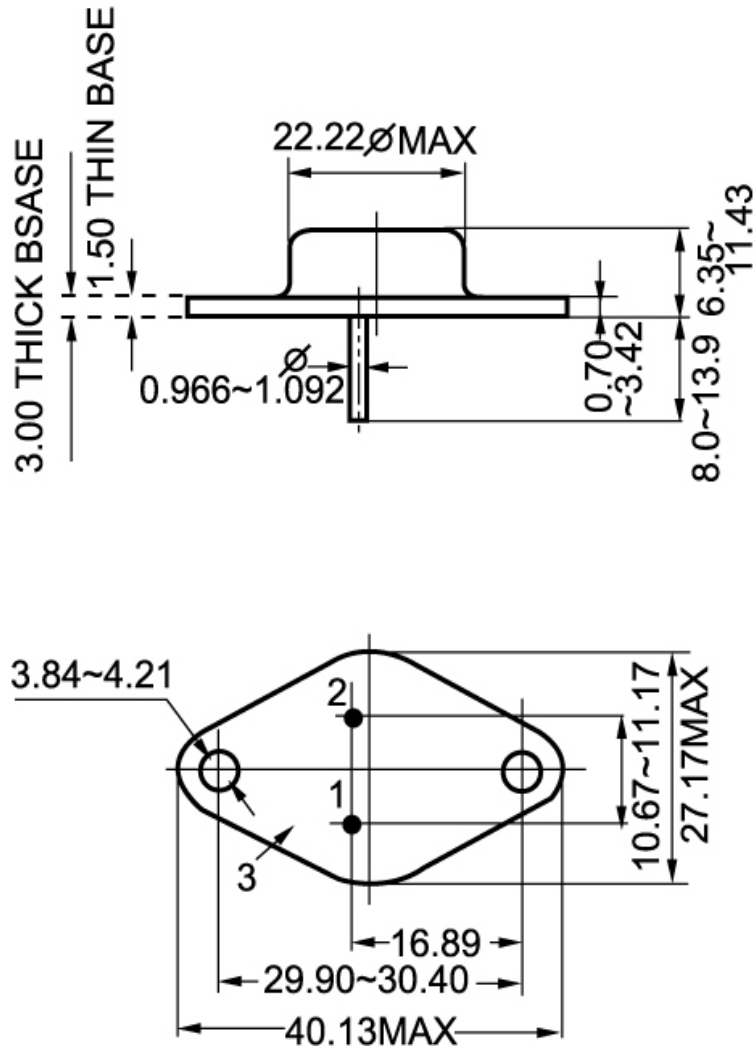


Fig.2 Outline dimensions