

Silicon NPN Power Transistors

BUV23

DESCRIPTION

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- With TO-3 package
- High DC current gain
- Very fast switching times
- Low collector saturation voltage

APPLICATIONS

- Designed for high current,high speed and high power application.

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

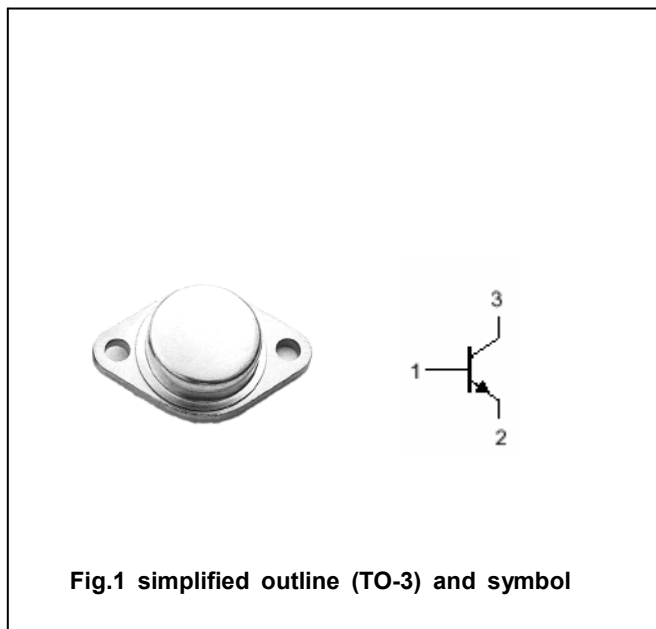


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings (Tc=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	400	V
V _{CEO}	Collector-emitter voltage	Open base	325	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		30	A
I _{CM}	Collector current-peak		40	A
I _B	Base current		6	A
P _T	Total power dissipation	T _C =25°C	250	W
T _j	Junction temperature		-65~200	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	0.7	°C/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 =0.2A; I _B =0; L=25mH	325			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 =8 A; I _B =1.6A			0.8	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =16 A; I _B =3.2 A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =16 A; I _B =3.2 A			1.5	V
I _{CEx}	Collector cut-off current	V _{CE} =400V; V _{BE} =-1.5V T _C =125°C			3.0 12	mA
I _{CEO}	Collector cut-off current	V _{CE} =260V; I _B =0			3	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	I _C =8A ; V _{CE} =4V	15		60	
h _{FE-2}	DC current gain	I _C =16A ; V _{CE} =4V	8			
f _T	Transition frequency	I _C =2A ; V _{CE} =15V; f=4MHz	8.0			MHz

Switching times

t _{on}	Turn-on time	I _C =16A ; I _{B1} =I _{B2} =3.2A V _{CC} =100V ; R _C =6.25Ω			0.8	μs
t _s	Storage time				2.5	μs
t _f	Fall time				0.4	μs

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PACKAGE OUTLINE

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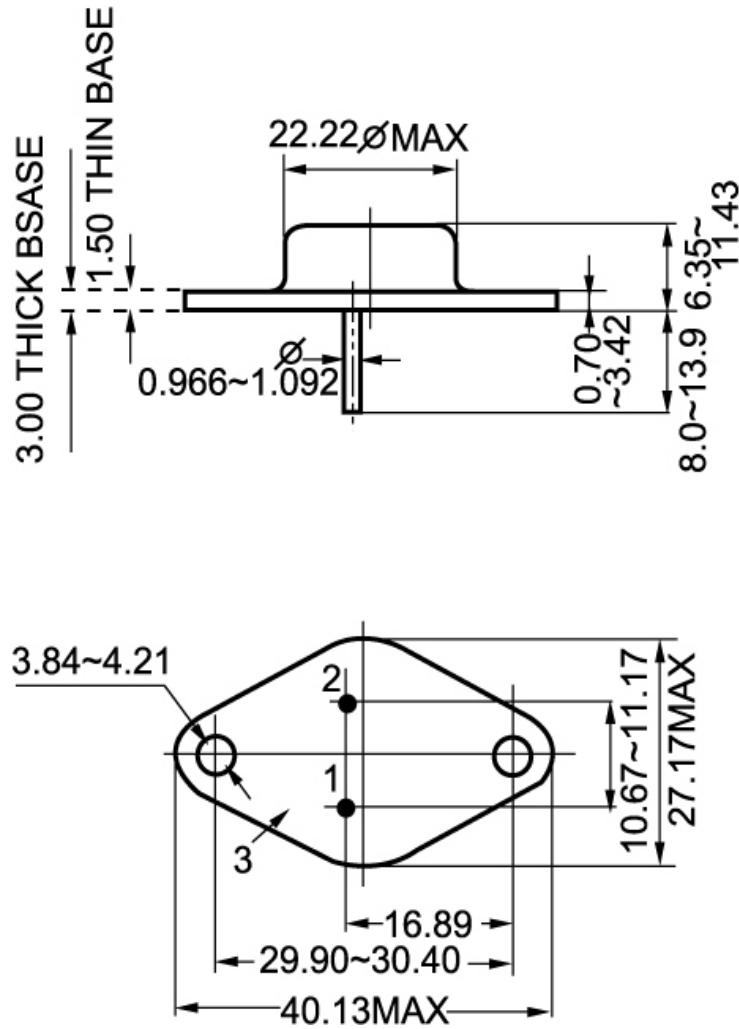


Fig.2 Outline dimensions