

Silicon NPN Power Transistors

BUV50

DESCRIPTION

- With TO-3 package
- High dielectric strength
- Short switching time

APPLICATIONS

- Suitable for use in clocked
voltage converters

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

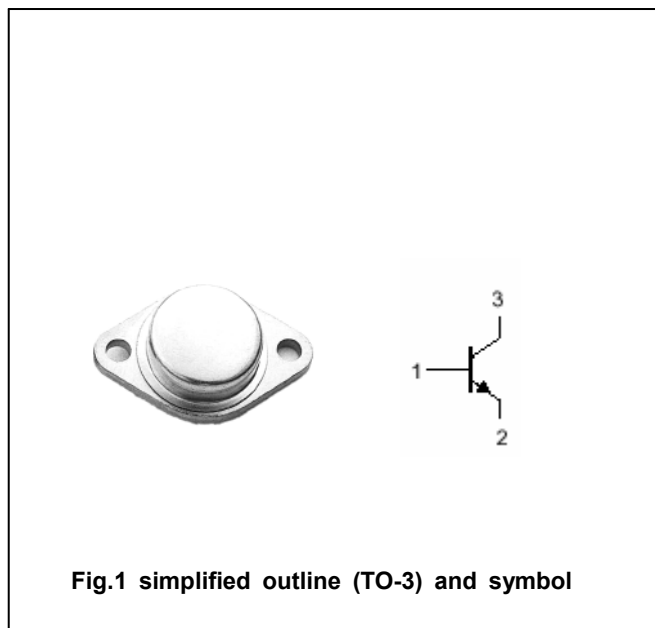


Fig.1 simplified outline (TO-3) and symbol

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	125	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		25	A
I _{CM}	Collector current-peak		50	A
I _B	Base current		6	A
I _{BM}	Base current-peak		12	A
P _T	Total power dissipation	T _{mb} ≤25°C	150	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

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

Silicon NPN Power Transistors

BUV50

CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; L=25mH	125			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 =10A; I _B =0.5A T _C =100 °C			0.8 0.9	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =20A; I _B =2A T _C =100 °C			0.9 1.5	V
V _{CEsat-3}	Collector-emitter saturation voltage	I _C =24A; I _B =3A T _C =100 °C			1.2 1.8	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =20A; I _B =2A T _C =100 °C			1.6 1.7	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =24A; I _B =3A T _C =100 °C			1.7 1.9	V
I _{CBO}	Collector cut-off current	V _{CB} =V _{CBQ(BR)} ; I _E =0 T _C =100 °C			1 5	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1	mA
h _{FE}	DC current gain	I _C =5A ; V _{CE} =4V	30			

PACKAGE OUTLINE

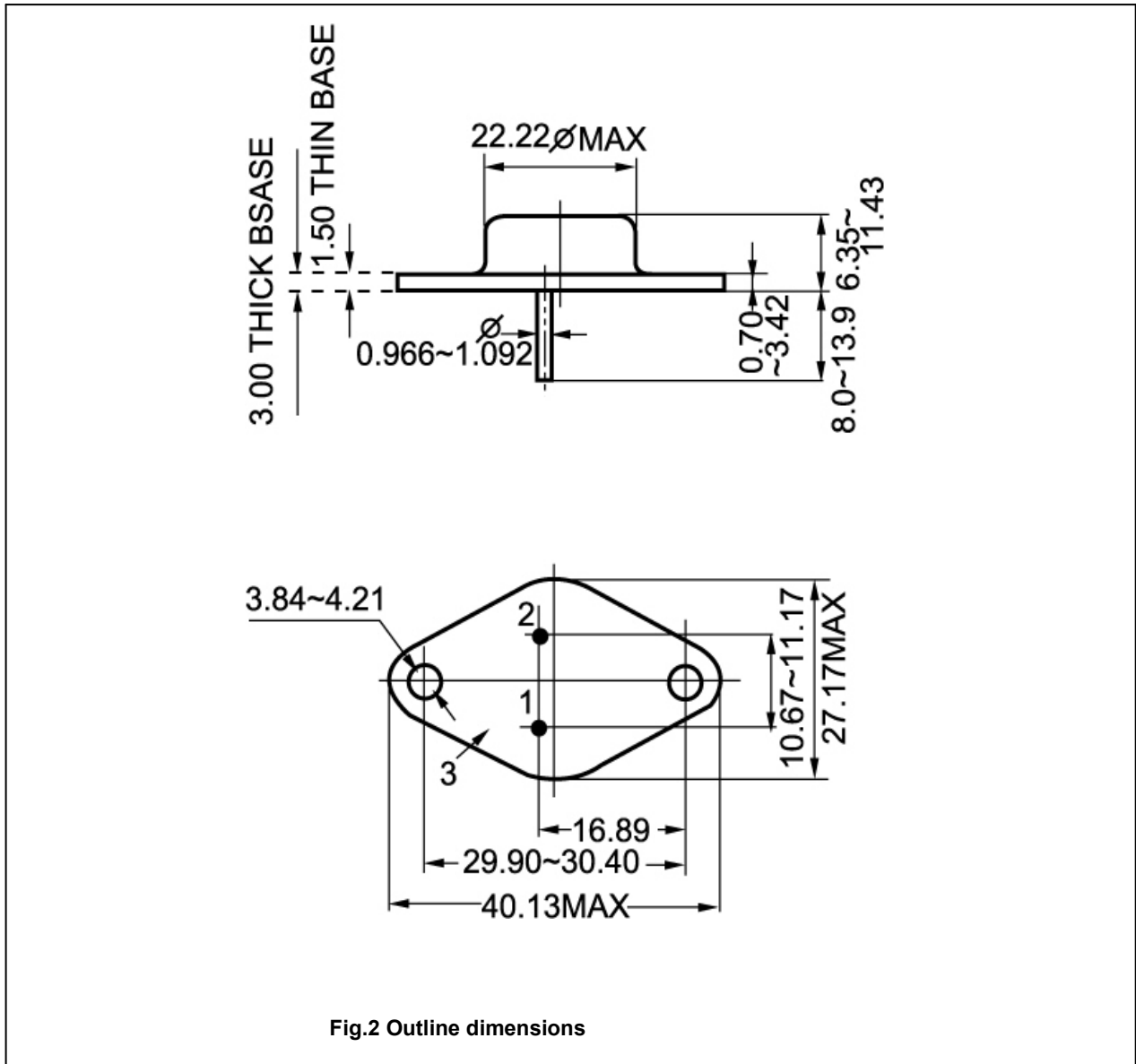


Fig.2 Outline dimensions