

Silicon NPN Power Transistors

BUW24

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

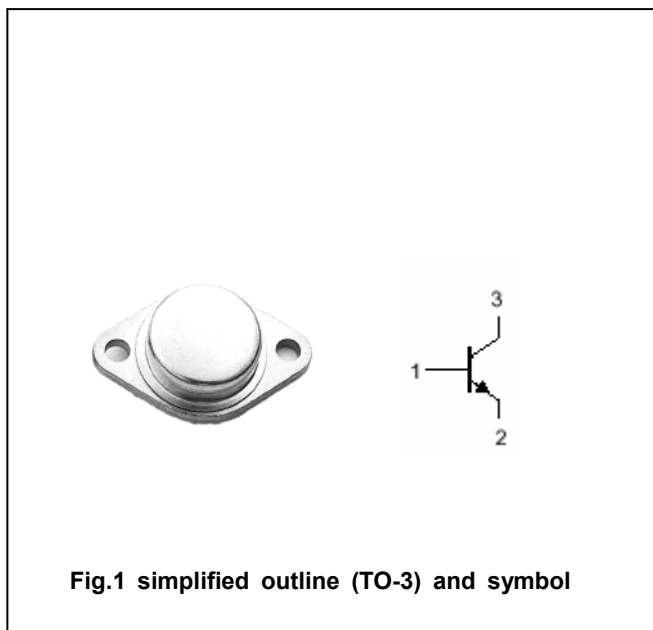


Fig.1 simplified outline (TO-3) and symbol

MAXIMUM RATINGS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	450	V
V_{CEO}	Collector-emitter voltage	Open base	350	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		10	A
I_B	Base current		3	A
P_T	Total power dissipation	$T_{mb} \leq 25^\circ C$	100	W
T_j	Junction temperature		150	$^\circ C$
T_{stg}	Storage temperature		-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.25	$^\circ C/W$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	350			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A; I _B =0.8A			0.8	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A; I _B =0.8A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =450V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	10		80	
h _{FE-2}	DC current gain	I _C =4A ; V _{CE} =5V	15			

Switching times

t _{on}	Turn-on time	I _C =5A I _{B1} =- I _{B2} =0.5A R _L =10Ω			2.0	μs
t _s	Storage time				4.0	μs
t _f	Fall time				1.2	μs

PACKAGE OUTLINE

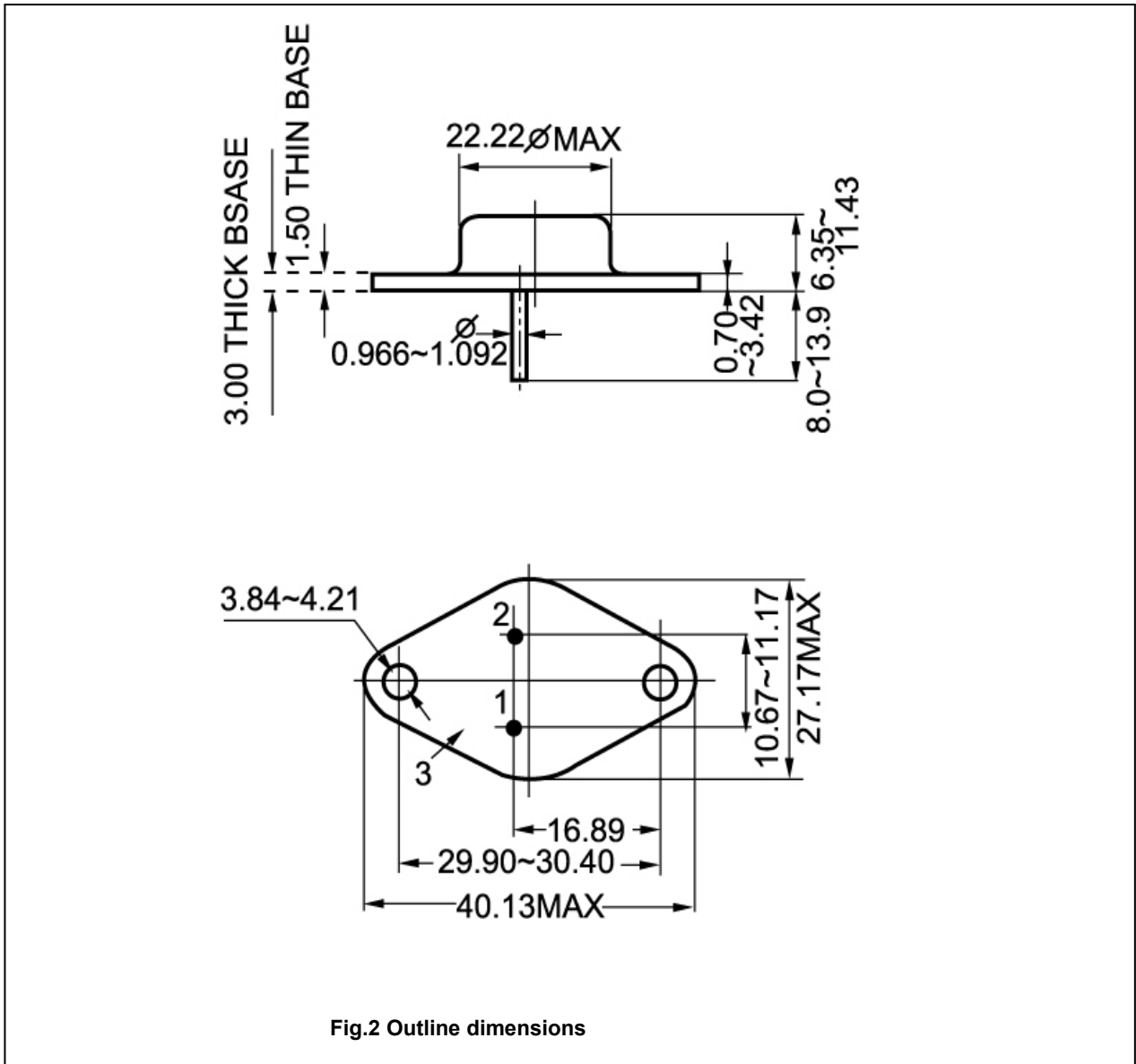


Fig.2 Outline dimensions