

Silicon NPN Power Transistors

BUW34

DESCRIPTION

- With TO-3 package
- High breakdown voltage

APPLICATIONS

- For high voltage ,fast switching applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		10	A
I_{CM}	Collector current-peak		15	A
I_B	Base current		5	A
P_T	Total power dissipation	$T_C \leq 25^\circ\text{C}$	125	W
T_j	Junction temperature		200	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.4	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0	400			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =1A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A; I _B =1A			1.5	V
I _{CES}	Collector cut-off current	V _{CE} =500V ; V _{BE} =0 T _C =125℃			0.1 3.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	15		50	
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =5V	8			

Switching times

t _{on}	Turn-on time	I _C =5A ; I _{B1} =- I _{B2} =1A V _{CC} =250V			0.7	μs
t _s	Storage time				3.0	μs
t _f	Fall time				0.8	μs

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PACKAGE OUTLINE

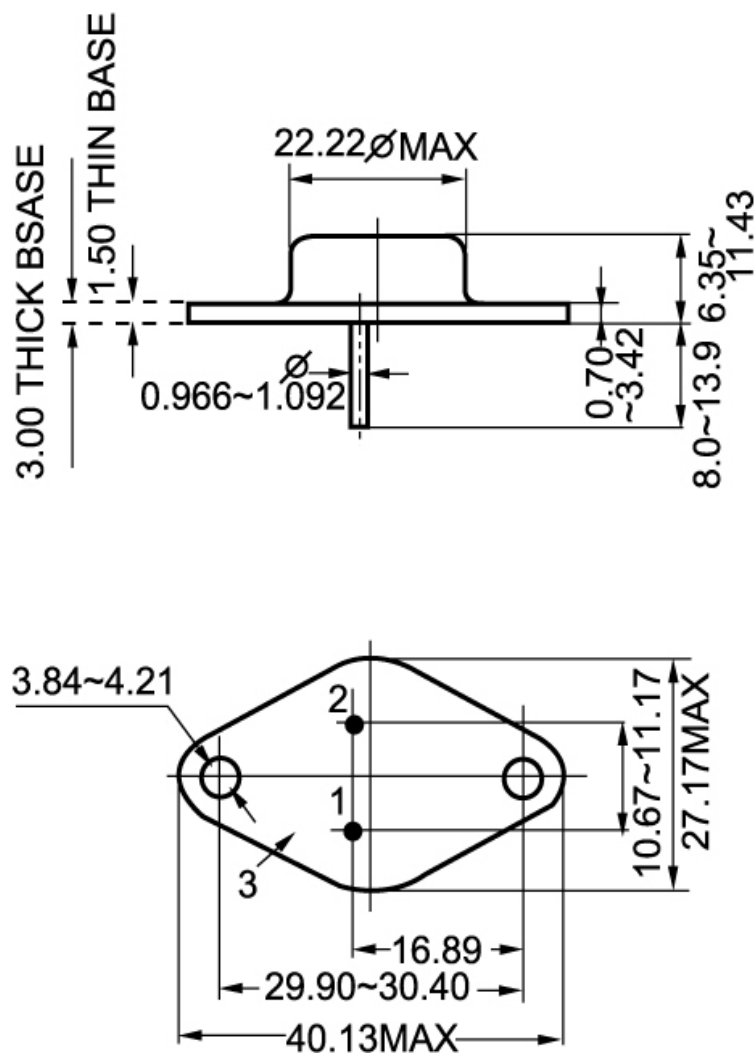


Fig.2 Outline dimensions