

Silicon NPN Power Transistors

BUW24

DESCRIPTION

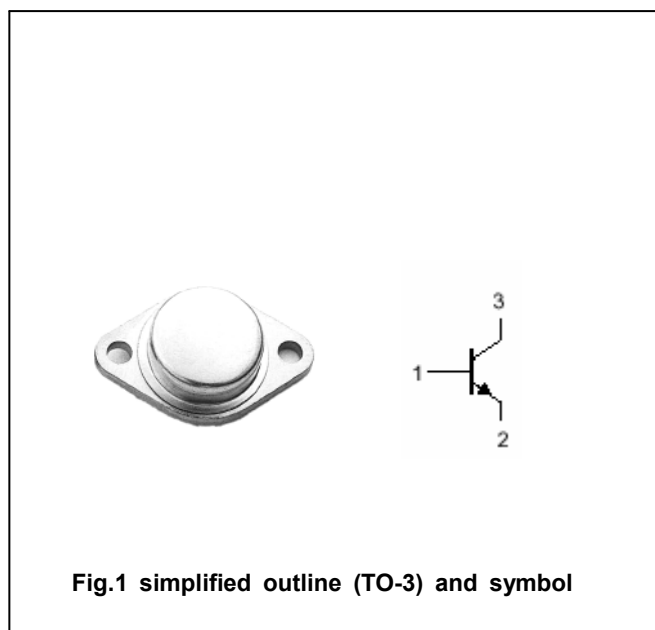
- With TO-3 package
- High dielectric strength
- Short switching time

APPLICATIONS

- Suitable for use in clocked
voltage converters

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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	$T_{mb} \leq 25^\circ\text{C}$	100	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

Tj=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	$I_C=5A$ $I_{B1}=-I_{B2}=0.5A$ $R_L=10\Omega$			2.0	μs
t_s	Storage time				4.0	μs
t_f	Fall time				1.2	μs

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PACKAGE OUTLINE

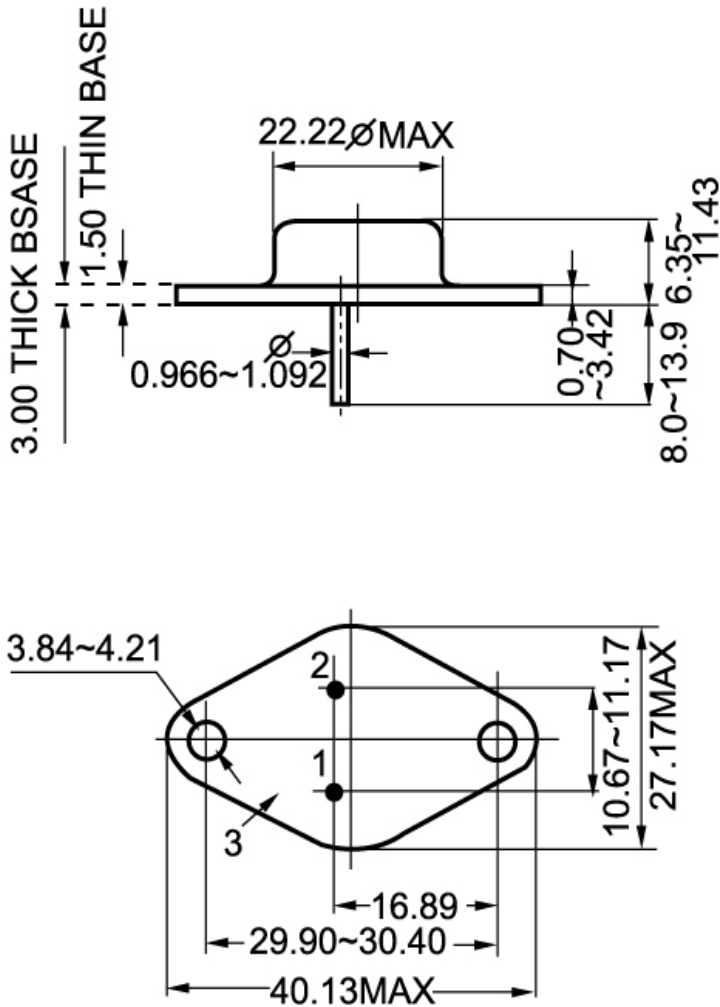


Fig.2 Outline dimensions