

Silicon NPN Power Transistors

BUX80

DESCRIPTION

- With TO-3 package
- High voltage
- Fast switching speed

APPLICATIONS

- Switching regulators
- Motor control
- High frequency and efficiency converters

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

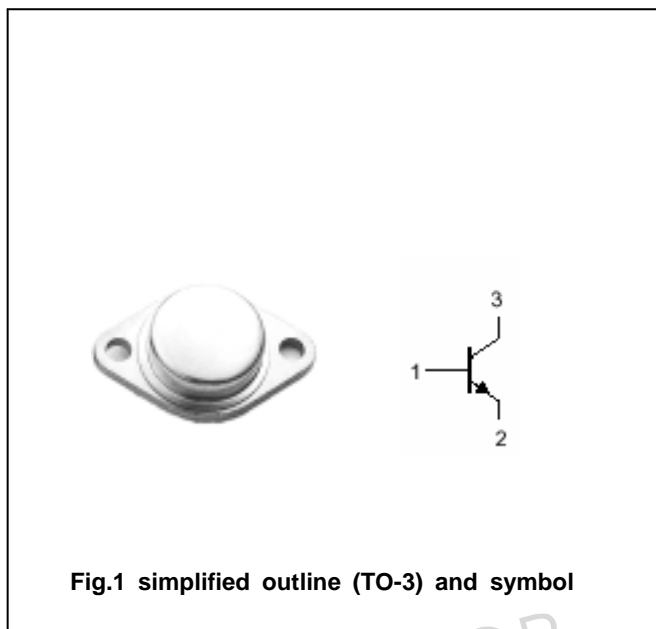


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	800	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	10	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	$T_C=25$	100	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal resistance junction to case	1.1	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1 A; I _B =0	400			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =5 A; I _B =1 A			1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =8 A; I _B =2.5 A			3.0	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =5 A; I _B =1 A			1.4	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =8 A; I _B =2.5 A			1.8	V
I _{CES}	Collector cut-off current	V _{CE} =800V; V _{BE} =0 T _C =125			1.0 3.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =10V; I _C =0			10	mA
h _{FE}	DC current gain	I _C =1.2 A; V _{CE} =5V		30		

Switching times

t _{on}	Turn-on time	I _C =5 A; I _{B1} =1 A; I _{B2} =-2 A V _{CC} =-250V			0.5	μs
t _s	Storage time				3.5	μs
t _f	Fall time				0.5	μs

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PACKAGE OUTLINE

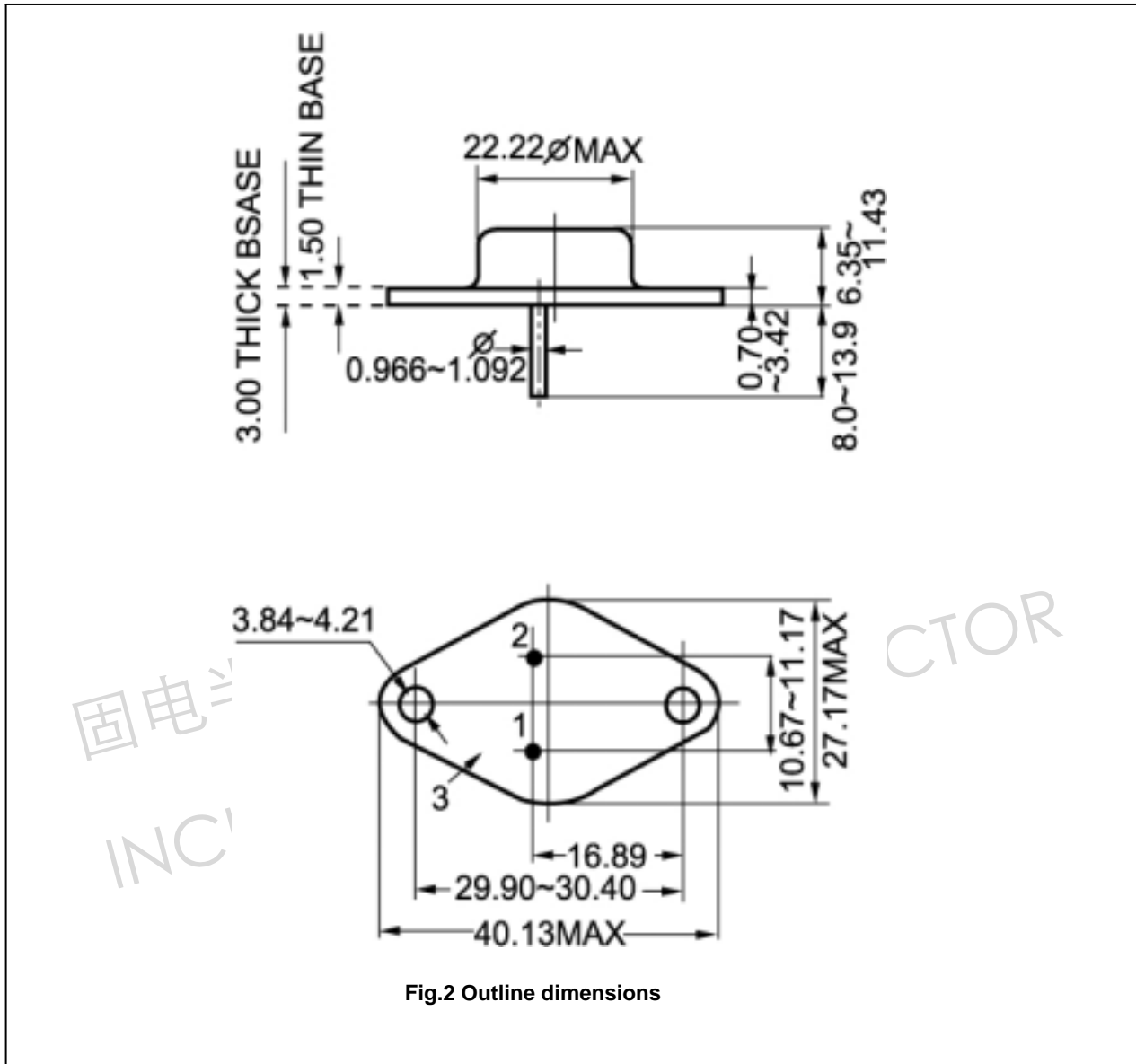


Fig.2 Outline dimensions