

Silicon NPN Power Transistors

BUX81

DESCRIPTION

- With TO-3 package
- High voltage ;fast switching speed
- Low saturation voltage

APPLICATIONS

- Switching-mode power supplies ,CRT scanning,inverters,and other industrial applications

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

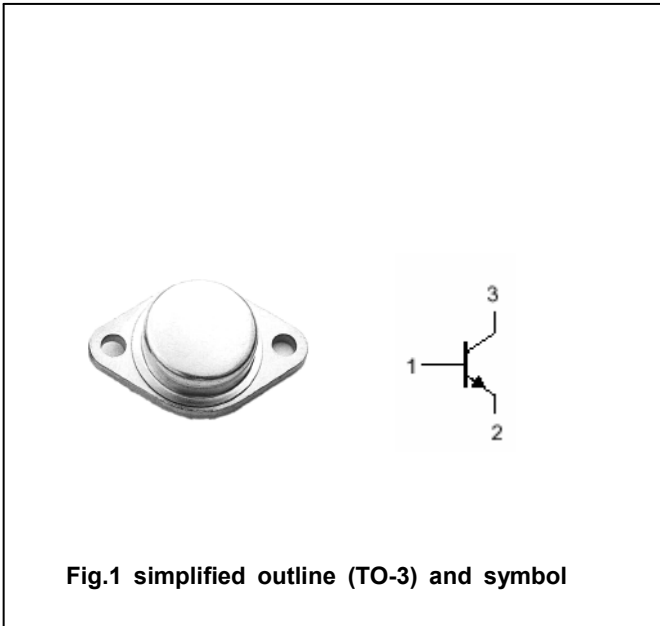


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25 °C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CB0}	Collector-base voltage	Open emitter	1000	V
V _{CEO}	Collector-emitter voltage	Open base	450	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		4	A
I _{BM}	Base current-peak		6	A
P _T	Total power dissipation	T _C =25 °C	150	W
T _j	Junction temperature		200	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A; L=25mH	450			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} =1000V; V _{BE} =0 T _C =125°C			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 =1.2A ; V _{CE} =5V	20			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V		8		MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =20V; f=0.1MHz		105		pF

Switching times

t _{on}	Turn-on time	I _C =5A ; I _{B1} =1A; I _{B2} =-2A V _{CC} =250V			0.5	μs
t _s	Storage time				3.5	μs
t _f	Fall time				0.8	μs

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PACKAGE OUTLINE

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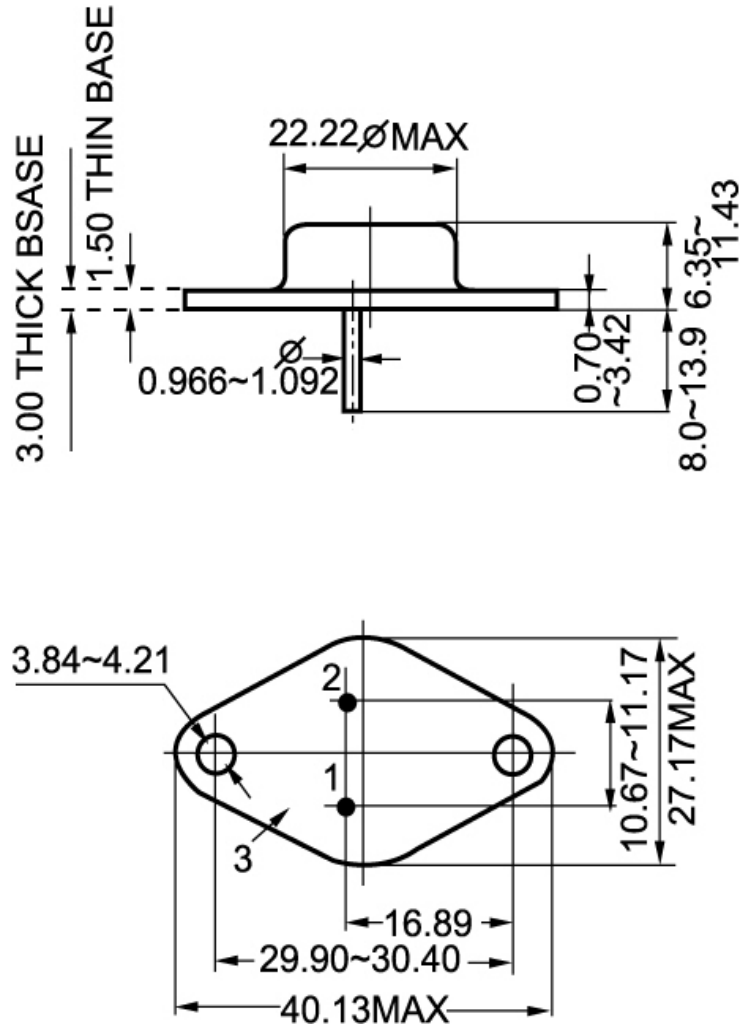


Fig.2 Outline dimensions