

Silicon NPN Power Transistors

BUX98 BUX98A

DESCRIPTION

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

APPLICATIONS

- High frequency and efficiency converters
- Linear and switching industrial equipment

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

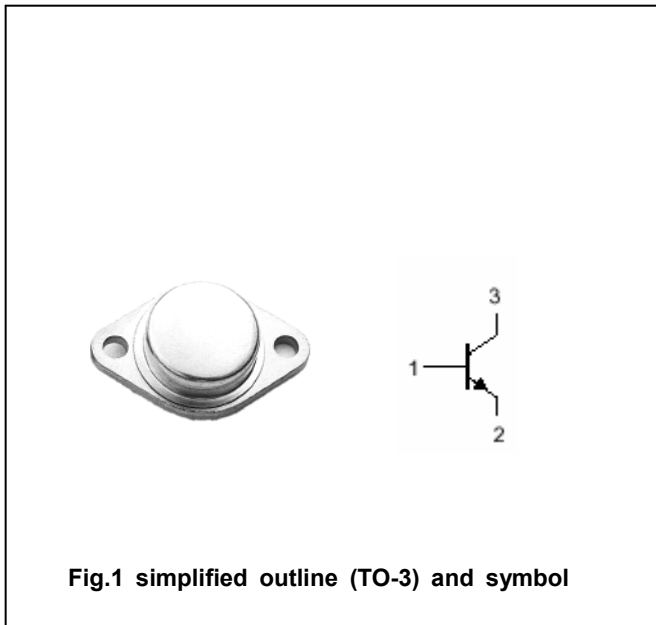


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BUX98	850	V
		BUX98A	1000	
V _{CEO}	Collector-emitter voltage	BUX98	400	V
		BUX98A	450	
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		30	A
I _{CM}	Collector current-peak (tp <5 ms)		60	A
I _B	Base current		8	A
I _{BM}	Base current-peak (tp <5 ms)		30	A
P _T	Total power dissipation	T _c <25□	250	W
T _j	Junction temperature		200	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	0.7	□/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	BUX98	I _C =0.2A ; I _B =0	400			V
		BUX98A		450			
V _{CER(SUS)}	Collector-emitter sustaining voltage	BUX98	I _C =1A; L=2mH	850			V
		BUX98A		1000			
V _{CEsat-1}	Collector-emitter saturation voltage	BUX98	I _C =20A ; I _B =4A			1.5	V
		BUX98A	I _C =16A ; I _B =3.2A				
V _{CEsat-2}	Collector-emitter for BUX98A saturation voltage		I _C =24A ; I _B =5A			5.0	V
V _{BEsat}	Base-emitter saturation voltage	BUX98	I _C =20A ; I _B =4A			1.6	V
		BUX98A	I _C =16A ; I _B =3.2A				
I _{CES}	Collector cut-off current		V _{CE} =V _{CES} ; V _{BE} =0 T _C =125 °C			0.4 4	mA
I _{CEO}	Collector cut-off current		V _{CE} =V _{CEO} ; I _B =0			2	mA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			2	mA
h _{FE}	DC current gain		I _C =1A ; V _{CE} =5V	15		50	

Switching times

t _{on}	Turn-on time	for BUX98 I _C =20A ; I _{B1} =-I _{B2} =4A; V _{CC} =150V			1.0	μs
t _s	Storage time		for BUX98A I _C =16A ; I _{B1} =-I _{B2} =3.2A; V _{CC} =150V			3.0
t _f	Fall time				0.8	μs

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PACKAGE OUTLINE

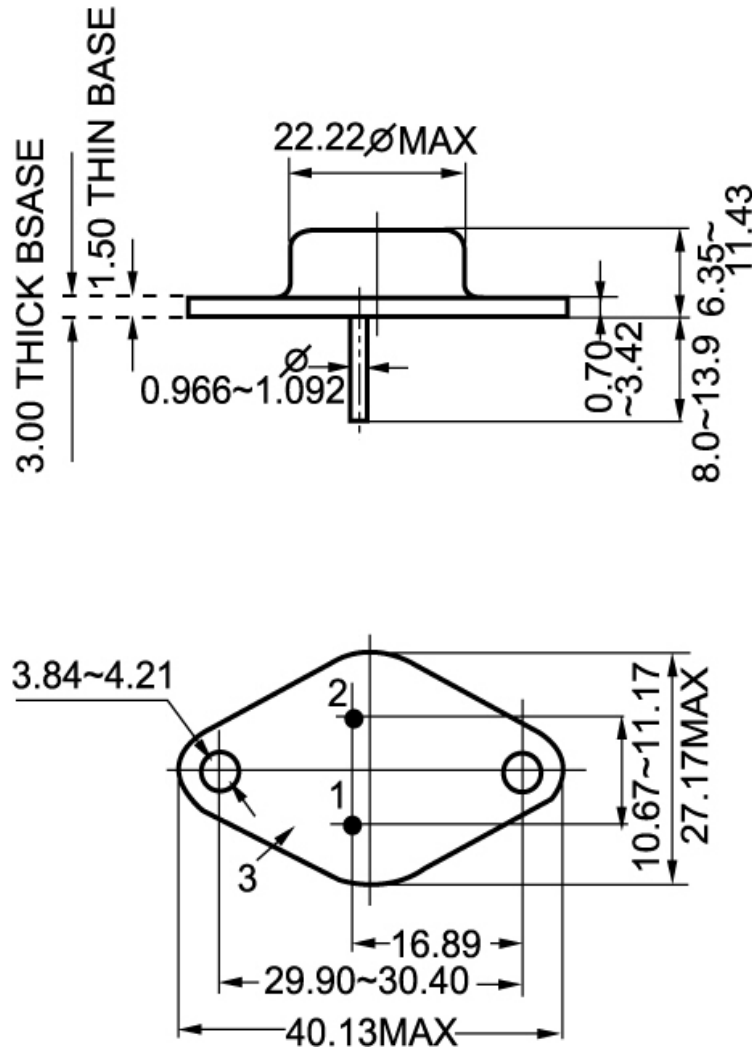


Fig.2 Outline dimensions