

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

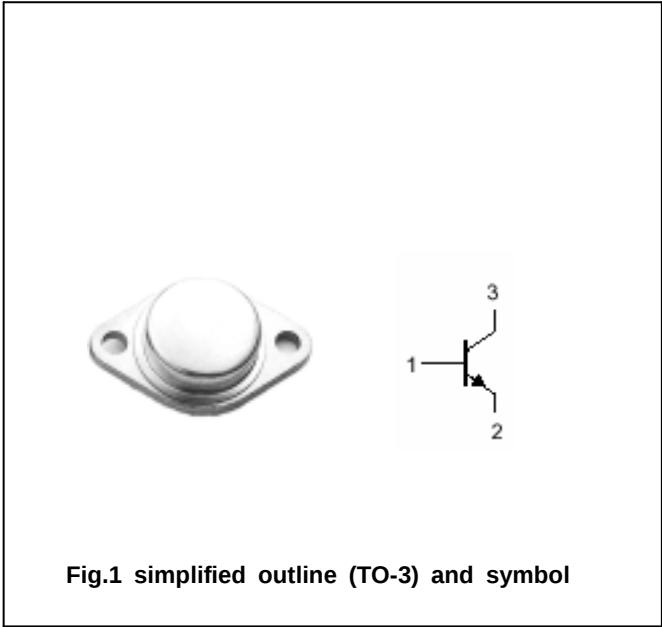


Fig.1 simplified outline (TO-3) and symbol

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

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1A$; $I_B=0$	400			V
$V_{CESat-1}$	Collector-emitter saturation voltage	$I_C=5A$; $I_B=1A$			1.5	V
$V_{CESat-2}$	Collector-emitter saturation voltage	$I_C=8A$; $I_B=2.5A$			3.0	V
$V_{BESat-1}$	Base-emitter saturation voltage	$I_C=5A$; $I_B=1A$			1.4	V
$V_{BESat-2}$	Base-emitter saturation voltage	$I_C=8A$; $I_B=2.5A$			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	$I_C=1.2A$; $V_{CE}=5V$		30		

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				0.5	μs

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PACKAGE OUTLINE

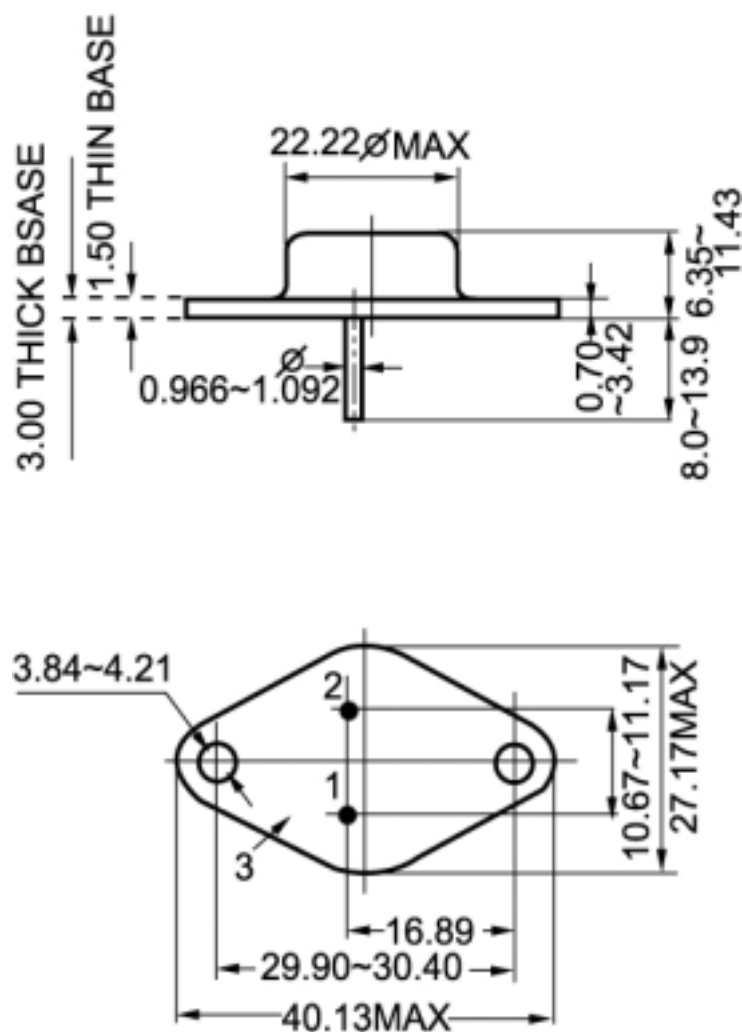


Fig.2 Outline dimensions