Silicon NPN Power Transistors BUX47

DESCRIPTION

- ·With TO-3 package
- ·High voltage ,high speed

APPLICATIONS

- ·Intended for high voltage,fast switching 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=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	850	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		9	A
I_{CM}	Collector current-peak		15	A
I_B	Bast current		8	A
I_{BM}	Bast current-peak		10	A
P_T	Total power dissipation	T_C=25□	125	W
T_j	Junction temperature		175	□
T_{stg}	Storage temperature		-65~175	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}C}$	Thermal resistance junction to case	1.2	□/W

CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.2A; I_B=0;L=25mH	400			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=50mA; I_C=0;	7		30	V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=6A;I_B=1.2 A			1.5	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=9A;I_B=3 A			3	V
V_{BEsat}	Base-emitter saturation voltage	I_C=6A;I_B=1.2 A			1.6	V
I_{CEV}	Collector cut-off current	V_{CE}=850V;V_{BE}=-2.5V T_C=125℃			0.15 1.5	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V;I_C=0			1	mA
h_{FE}	DC current gain	I_C=1A ;V_{CE}=5V	15		50	

Switching times

T_{on}	Turn-on time	I_C=6A;I_{B1}=-I_{B2}=1.2A; V_{CC}=150V			0.8	μs
t_s	Storage time				2.5	μs
t_f	Fall time				0.8	μs

PACKAGE OUTLINE

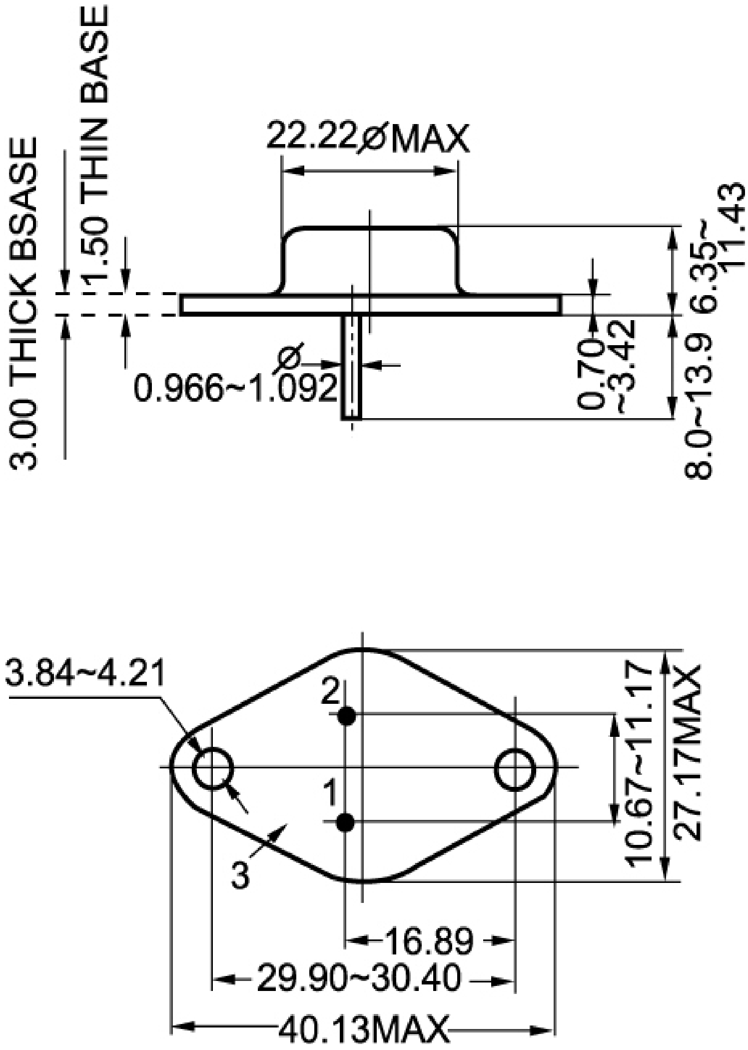

Fig.2 Outline dimensions