Silicon NPN Power Transistors BUX48B

DESCRIPTION

·With TO-3 package

·High voltage

·Fast switching speed

APPLICATIONS

·Intended for switching and 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=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1200	V
V_{CEO}	Collector-emitter voltage	Open base	600	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		15	A
I_{CM}	Collector current-peak (tp<5ms)		30	A
I_B	Bast current		4	A
I_{BM}	Bast current-peak (tp<5ms)		20	A
P_T	Total power dissipation	T_C=25□	175	W
T_j	Junction temperature		200	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}C}$	Thermal resistance junction to case	1.0	□/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=100mA; I_B=0;	600			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=50mA; I_C=0;	7			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=6A;I_B=1.5A			1.5	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=10A;I_B=4A			3.0	V
$V_{BEsat-1}$	Base-emitter saturation voltage	I_C=6A;I_B=1.5A			1.5	V
$V_{BEsat-2}$	Base-emitter saturation voltage	I_C=10A;I_B=4A			2.0	V
I_{CES}	Collector cut-off current	V_{CE}=1200V;V_{BE}=-0 T_C=125□			0.5 3.0	mA
I_{CEO}	Collector cut-off current	V_{CE}=600V;I_B=0			1.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=6V;I_C=0			1.0	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}=1.5A; V_{CC}=250V		0.5	1.0	μs
t_s	Storage time			1.5	3.0	μs
t_f	Fall time			0.2	0.7	μs

PACKAGE OUTLINE

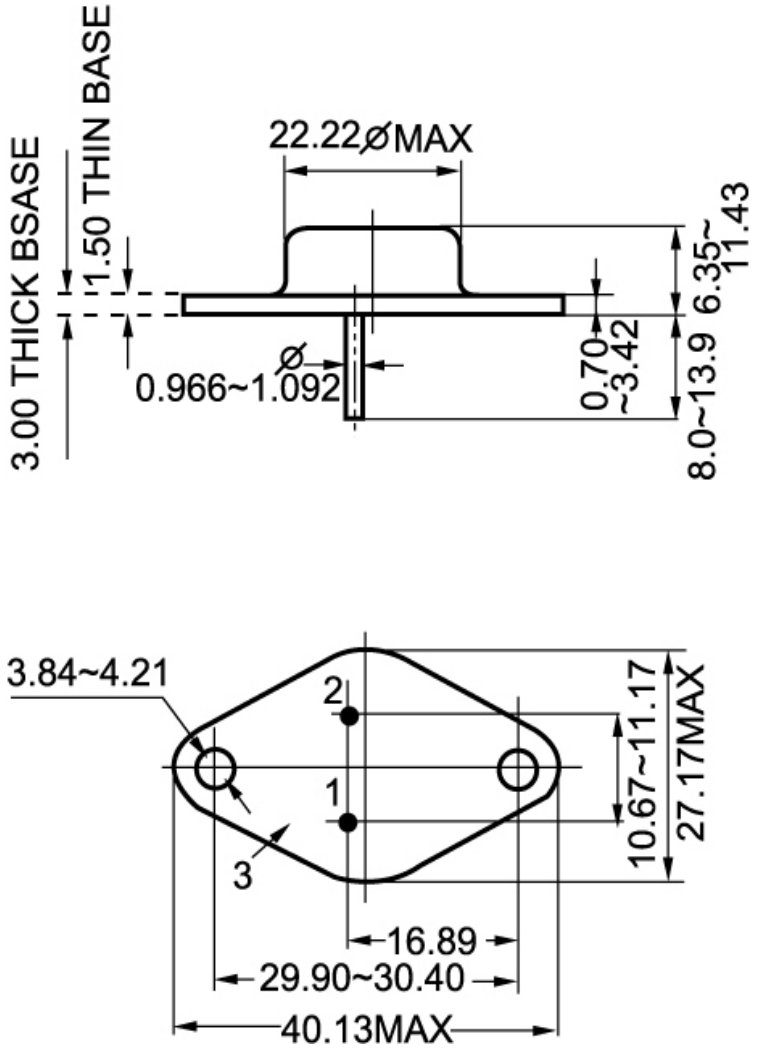

Fig.2 Outline dimensions