Silicon NPN Power Transistors BUX11

DESCRIPTION

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

APPLICATIONS

·For use in switching and linear 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□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	250	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		20	A
I_{CM}	Collector current-peak	t_p=10ms	25	A
I_B	Base current		4	A
P_T	Total power dissipation	T_C=25□	150	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	1.17	□/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=0.2mA; I_B=0	200			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=6 A;I_B=0.6A			0.6	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=12 A;I_B=1.5 A			1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=12 A;I_B=1.5 A			1.5	V
I_{CEX}	Collector cut-off current	V_{CE}=250V;V_{BE}=-1.5V T_C=125□			1.5 6.0	mA
I_{CEO}	Collector cut-off current	V_{CE}=160V;I_B=0			1.5	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			1.0	mA
h_{FE-1}	DC current gain	I_C=6A ; V_{CE}=2V	20		60	
h_{FE-2}	DC current gain	I_C=12A ; V_{CE}=4V	10			
f_T	Transition frequency	I_C=1A ; V_{CE}=15V; f=10MHz	8.0			MHz
Switching times						
t_{on}	Turn-on time	I_C=12A ;I_{B1}=1.5A V_{CC}=150V			1.0	μs
t_s	Storage time	I_C=12A ;I_{B1}=-I_{B2}=1.5A V_{CC}=150V			1.8	μs
t_f	Fall time				0.4	μs

PACKAGE OUTLINE

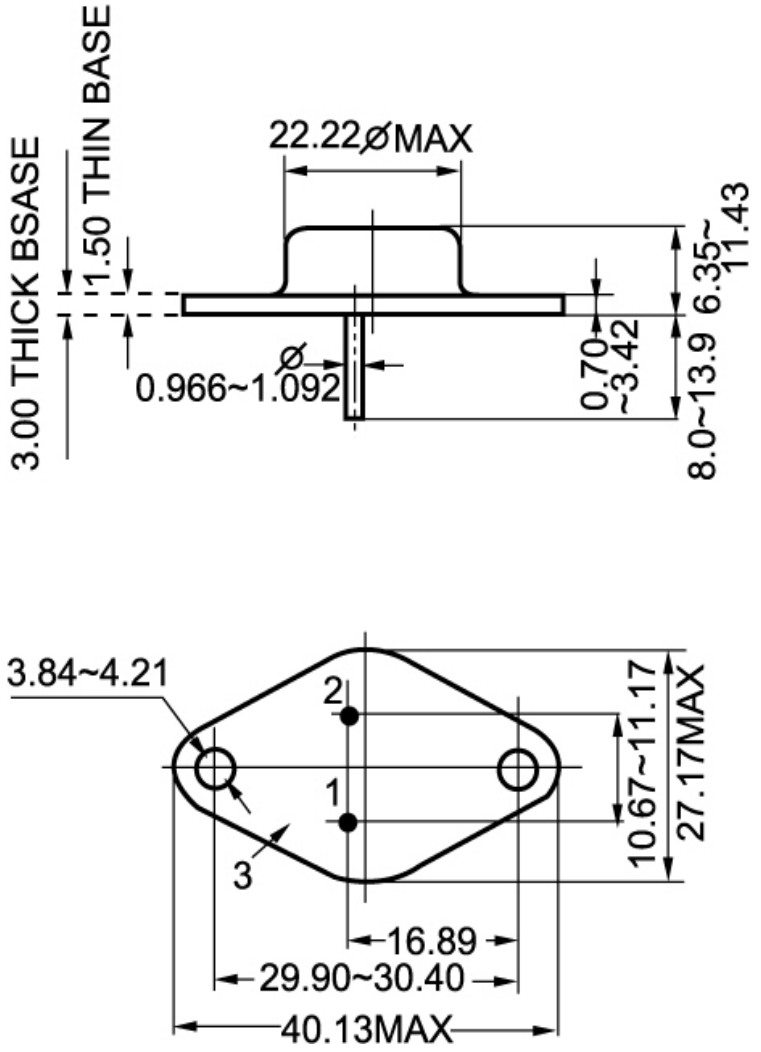

Fig.2 Outline dimensions