Silicon NPN Power Transistors BUV23

DESCRIPTION

·With TO-3 package
·High DC current gain
·Very fast switching times
·Low collector saturation voltage

APPLICATIONS

·Designed for high current,high speed and high power application.

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

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

Absolute maximum ratings (Tc=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	400	V
V_{CEO}	Collector-emitter voltage	Open base	325	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		30	A
I_{CM}	Collector current-peak		40	A
I_B	Base current		6	A
P_T	Total power dissipation	T_C=25□	250	W
T_j	Junction temperature		-65~200	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\,j\text{-}C}$	Thermal resistance junction to case	0.7	□/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=0.2A; I_B=0;L=25mH	325			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=8 A;I_B=1.6A			0.8	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=16 A;I_B=3.2 A			1.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=16 A;I_B=3.2 A			1.5	V
I_{CEX}	Collector cut-off current	V_{CE}=400V;V_{BE}=-1.5V T_C=125□			3.0 12	mA
I_{CEO}	Collector cut-off current	V_{CE}=260V;I_B=0			3	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			1.0	mA
h_{FE-1}	DC current gain	I_C=8A ; V_{CE}=4V	15		60	
h_{FE-2}	DC current gain	I_C=16A ; V_{CE}=4V	8			
f_T	Transition frequency	I_C=2A ; V_{CE}=15V; f=4MHz	8.0			MHz

Switching times

t_{on}	Turn-on time	I_C=16A ;I_{B1}=-I_{B2}=3.2A V_{CC}=100V ;R_C=6.25Ω			0.8	μs
t_s	Storage time				2.5	μs
t_f	Fall time				0.4	μs

PACKAGE OUTLINE

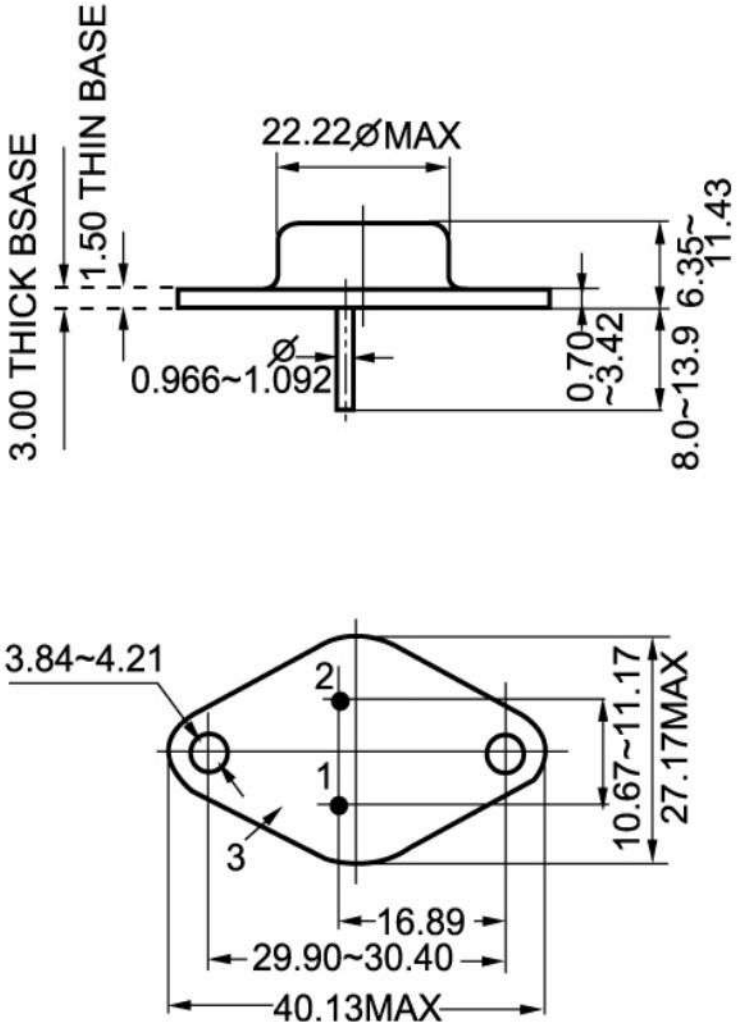

Fig.2 Outline dimensions