Silicon NPN Power Transistors BUX98 BUX98A

DESCRIPTION

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

APPLICATIONS

·High frequency and efficiency converters
·Linear and switching industrial equipment

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	BUX98	Open emitter	850	V
		BUX98A		1000	
V_{CEO}	Collector-emitter voltage	BUX98	Open base	400	V
		BUX98A		450	
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			30	A
I_{CM}	Collector current-peak (tp <5 ms)			60	A
I_B	Base current			8	A
I_{BM}	Base current-peak (tp <5 ms)			30	A
P_T	Total power dissipation		T_C<25□	250	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 from junction to case	0.7	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	BUX98	I_C=0.2A ; I_B=0	400			V
		BUX98A		450			
$V_{CER(SUS)}$	Collector-emitter sustaining voltage	BUX98	I_C=1A; L=2mH	850			V
		BUX98A		1000			
$V_{CEsat-1}$	Collector-emitter saturation voltage	BUX98	I_C=20A ;I_B=4A			1.5	V
		BUX98A	I_C=16A ;I_B=3.2A				
$V_{CEsat-2}$	Collector-emitter saturation voltage for BUX98A		I_C=24A ;I_B=5A			5.0	V
V_{BEsat}	Base-emitter saturation voltage	BUX98	I_C=20A ;I_B=4A			1.6	V
		BUX98A	I_C=16A ;I_B=3.2A				
I_{CES}	Collector cut-off current		V_{CE}=V_{CES}; V_{BE}=0 T_C=125□			0.4 4	mA
I_{CEO}	Collector cut-off current		V_{CE}=V_{CEO}; I_B=0			2	mA
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			2	mA
h_{FE}	DC current gain		I_C=1A ; V_{CE}=5V	15		50	

Switching times

t_{on}	Turn-on time	for BUX98 I_C=20A ;I_{B1}=-I_{B2}=4A; V_{CC}=150V for BUX98A I_C=16A ;I_{B1}=-I_{B2}=3.2A; V_{CC}=150V			1.0	μs
t_s	Storage time				3.0	μs
t_f	Fall time				0.8	μs

PACKAGE OUTLINE

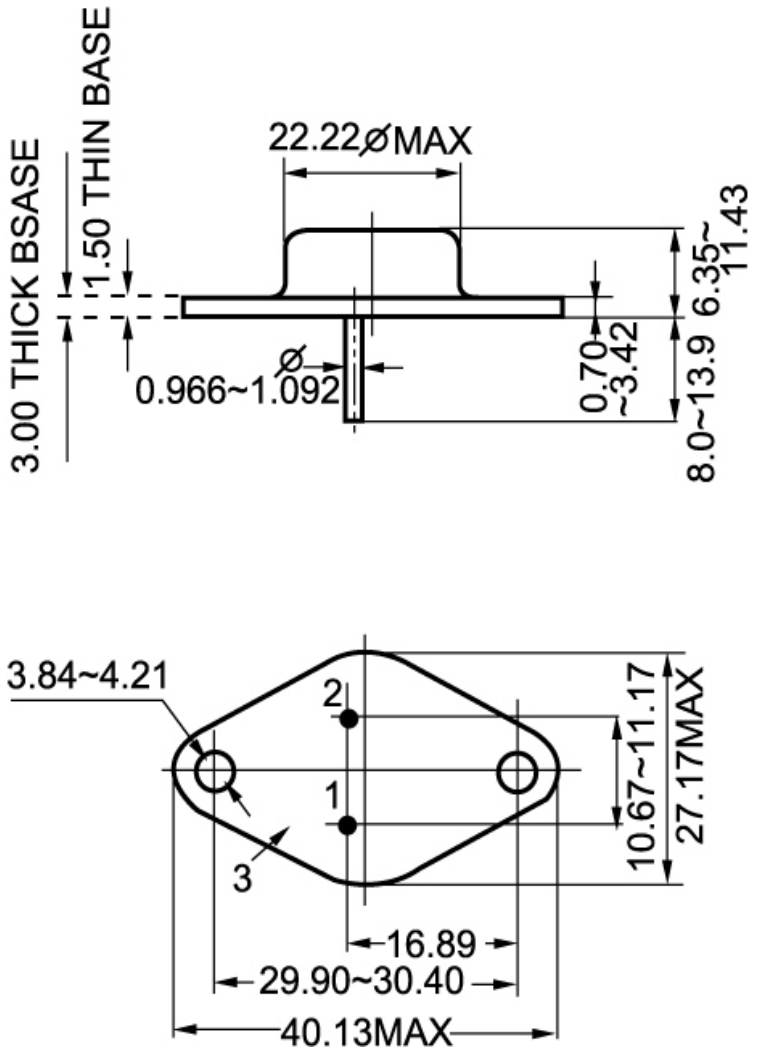

Fig.2 Outline dimensions