Silicon NPN Power Transistors 2SC3168

DESCRIPTION

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

APPLICATIONS

- For power 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=25℃)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		20	A
I_{CM}	Collector current-Peak		40	A
I_B	Base current		7	A
I_{BM}	Base current-Peak		14	A
P_T	Total power dissipation	T_{mb}=25℃	200	W
T_j	Junction temperature		200	℃
T_{stg}	Storage temperature		-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}mb}$	Thermal resistance from junction to mounting base	0.63	℃/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	400			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=10A; I_B=2A			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=10A; I_B=2A			1.5	V
I_{CBO}	Collector cut-off current	At rated voltage			0.1	mA
I_{CEO}	Collector cut-off current	At rated voltage			0.1	mA
I_{EBO}	Emitter cut-off current	At rated voltage			0.1	mA
h_{FE}	DC current gain	I_C=10A ; V_{CE}=2V	10		40	
f_T	Transition frequency	I_C=2A ; V_{CE}=10V		20		MHz

PACKAGE OUTLINE

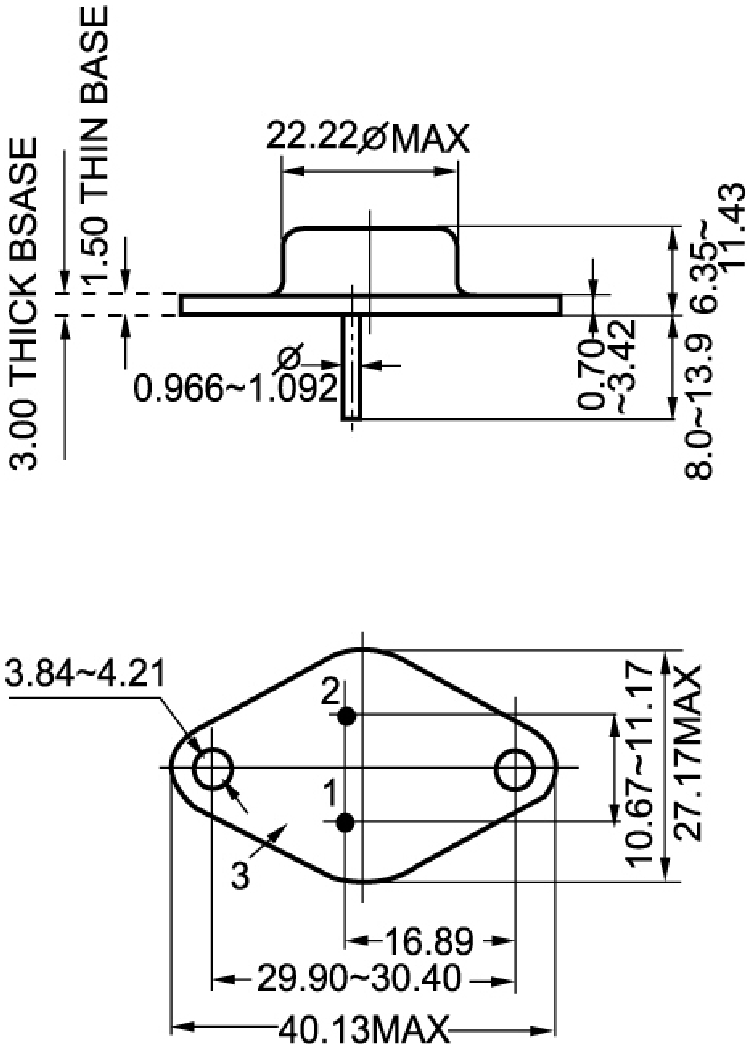

Fig.2 Outline dimensions