

Silicon NPN Power Transistors

2SC1868

DESCRIPTION

- With TO-3 package
- Wide area of safe operation
- High voltage ,high speed

APPLICATIONS

- For switching regulator application

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

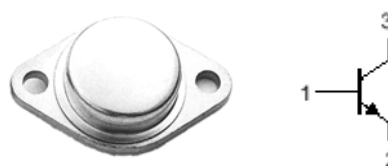


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = ^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	450	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		7	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	80	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	400			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA ; I _E =0	450			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A; I _B =0.8A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A; I _B =0.8A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =450V; I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			100	μ A
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	15		50	
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =5V	10			

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PACKAGE OUTLINE

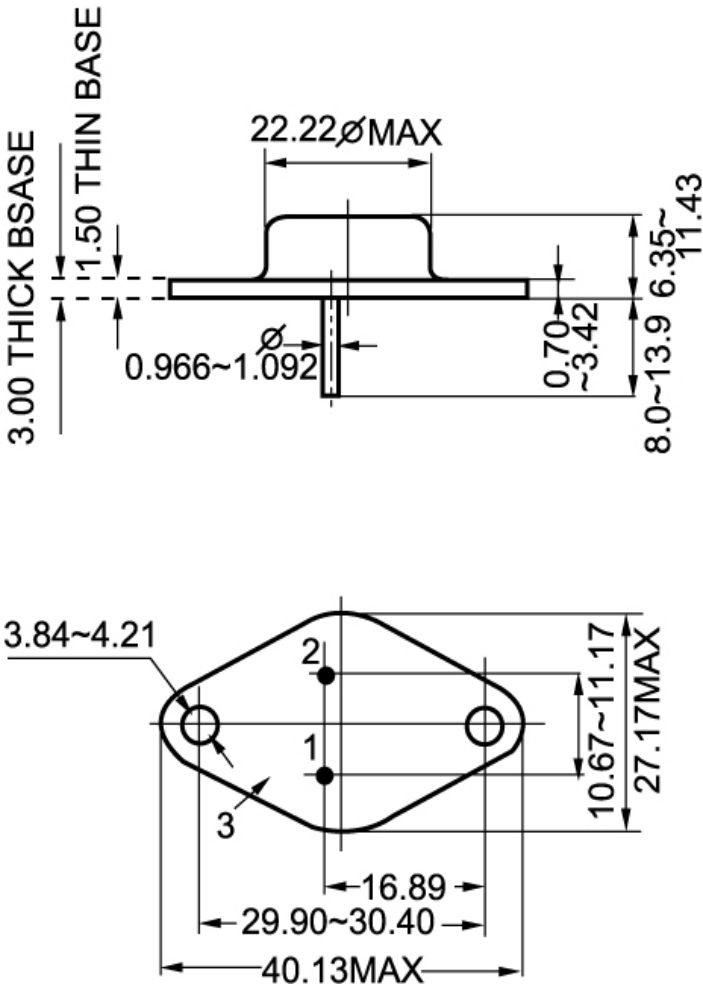


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)