

Silicon NPN Power Transistors

2SC3058

DESCRIPTION

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

APPLICATIONS

- For switching regulator and DC/DC converter applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

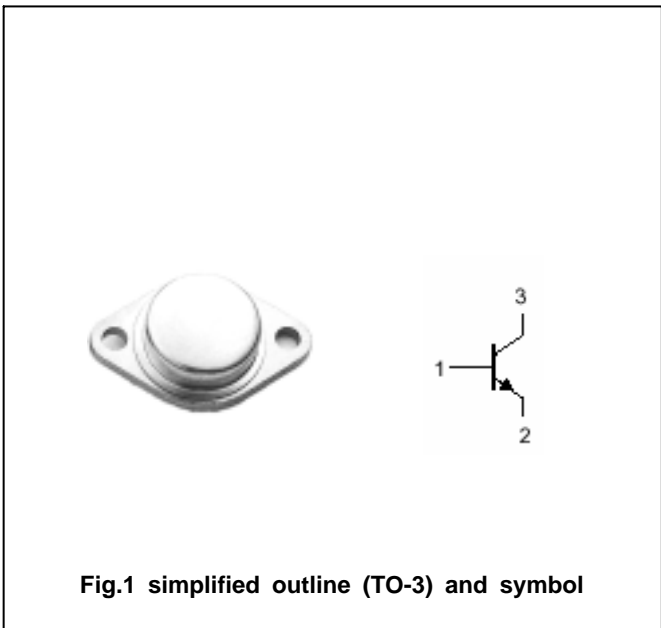


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	600	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		30	A
P_T	Total power dissipation	$T_C=25$	200	W
T_j	Junction temperature		200	
T_{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-mb}$	Thermal resistance from junction to mounting base	1.0	/W

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CHARACTERISTICS

T_j=25 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	600			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =20A; I _B =4A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =20A; I _B =4A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =500V; I _E =0			10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	15		50	
h _{FE-2}	DC current gain	I _C =20A ; V _{CE} =5V	10		40	
f _T	Transition frequency	I _C =4A ; V _{CE} =10V		30		MHz
C _{OB}	Collector output capacitance	I _E =0 ; V _{CB} =10V;f=1MHz		420		pF

PACKAGE OUTLINE

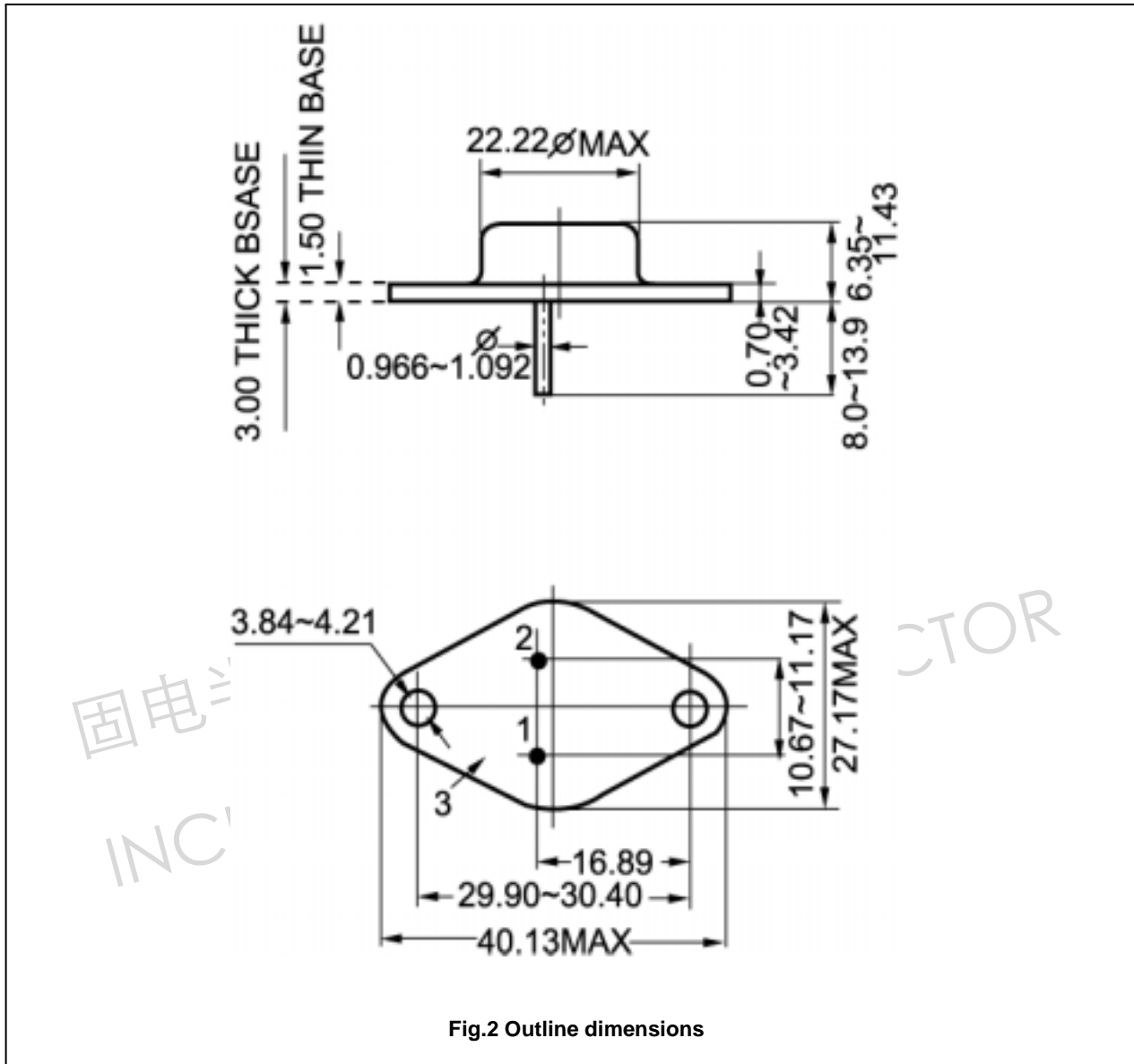


Fig.2 Outline dimensions