

Silicon PNP Power Transistors

BD312

DESCRIPTION

- With TO-3 package
- High DC current gain
- Excellent safe operating area
- Complement to type BD311

APPLICATIONS

- Designed for power amplifier applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

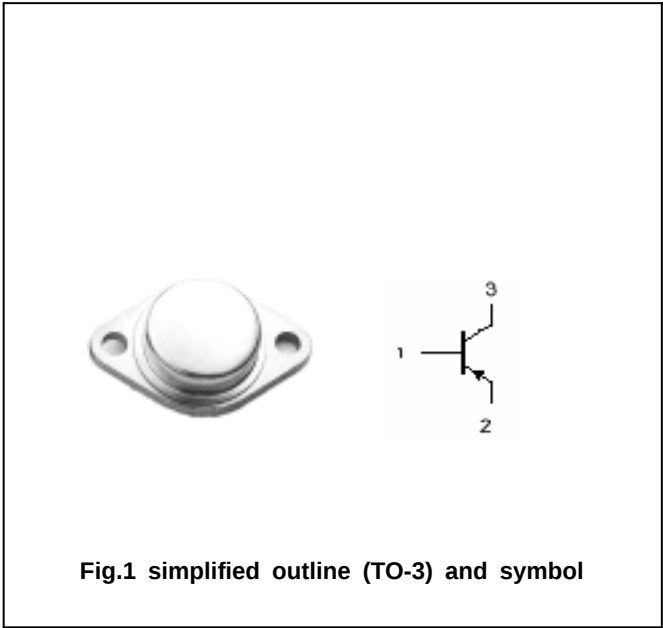


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a=25\text{ }^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-10	A
I_{CM}	Collector current(peak)		-20	A
I_B	Base current		-4	A
P_T	Total power dissipation	$T_C=25$	115	W
T_j	Junction temperature		-65~200	
T_{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\text{ }j-c}$	Thermal resistance from junction to case	1.52	/W

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CHARACTERISTICS

T_j=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	-60			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5A ; I _B =-0.5A			-1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-5A ; I _B =-0.5A			-1.8	V
V _{BE}	Base-emitter on voltage	I _C =-5A ; V _{CE} =-4V			-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =rated; I _E =0			-1.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-7V; I _C =0			-1.0	mA
h _{FE-1}	DC current gain	I _C =-5A ; V _{CE} =-4V	25			
h _{FE-2}	DC current gain	I _C =-10A ; V _{CE} =-4V	5			
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-10V, f=1MHz	4			MHz

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PACKAGE OUTLINE

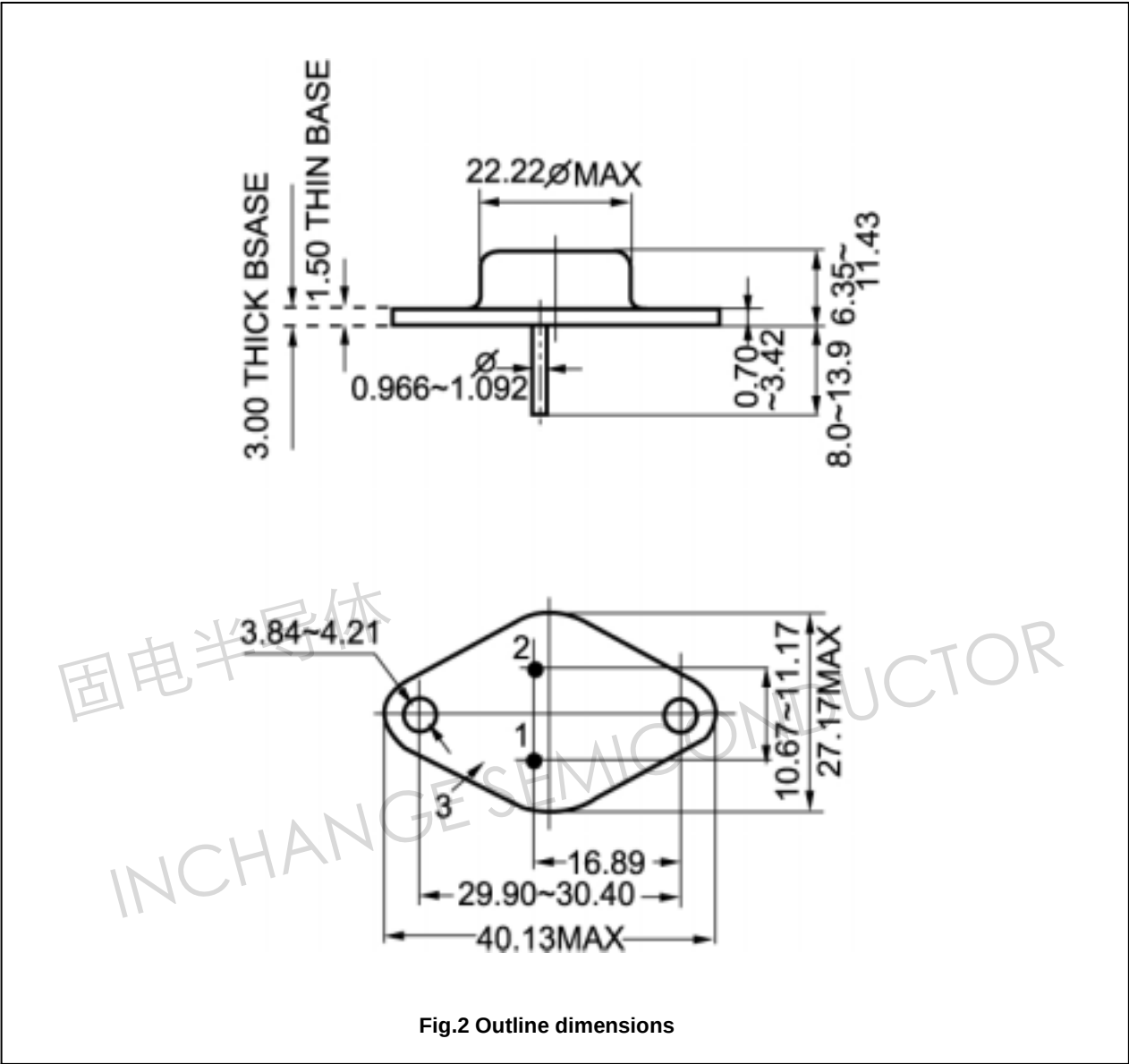


Fig.2 Outline dimensions