

Silicon PNP Power Transistors

2SB1069 2SB1069A

DESCRIPTION

- With TO-220 package
- High speed switching
- Low collector saturation voltage

APPLICATIONS

- For low-voltage switching applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

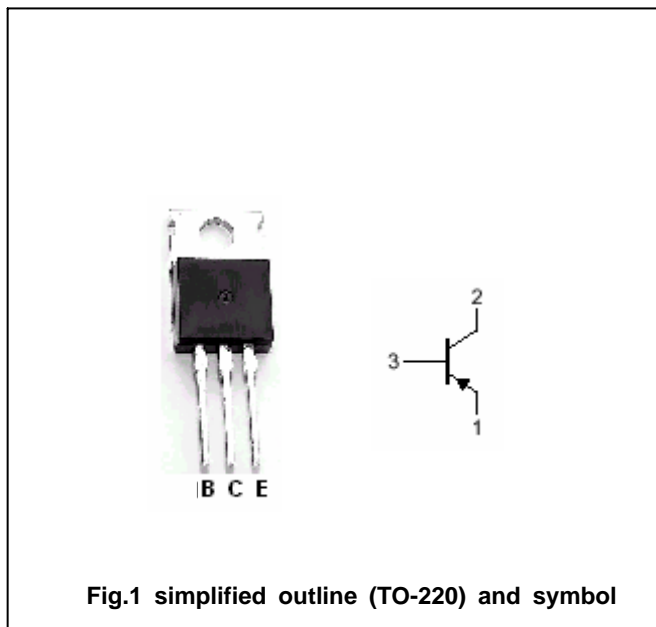


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SB1069	-40	V
		2SB1069A	-50	
V _{CEO}	Collector-emitter voltage	2SB1069	-20	V
		2SB1069A	-40	
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-4	A
I _{CM}	Collector current-peak		-8	A
P _C	Collector power dissipation	T _a =25	1.4	W
		T _C =25	25	
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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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	2SB1069	I _C =-10mA, I _B =0	-20			V
		2SB1069A		-40			
V _{CEsat}	Collector-emitter saturation voltage		I _C =-2A; I _B =-0.1A			-0.5	V
V _{BEsat}	Base-emitter saturation voltage		I _C =-2A; I _B =-0.1A			-1.5	V
I _{CBO}	Collector cut-off current		V _{CB} =-40V; I _E =0			-50	μA
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-50	μA
h _{FE-1}	DC current gain		I _C =-0.1A; V _{CE} =-2V	45			
h _{FE-2}	DC current gain		I _C =-1A; V _{CE} =-2V	60		260	
f _T	Transition frequency		I _C =-0.5A; V _{CE} =-5V		150		MHz

Switching times

t _{on}	Turn-on time	I _C =-2A; I _{B1} =-I _{B2} =-0.2A		0.3		μs
t _{stg}	Storage time			0.4		μs
t _f	Fall time			0.1		μs

◆ h_{FE-2} classifications

R	Q	P
60-120	90-180	130-260

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PACKAGE OUTLINE

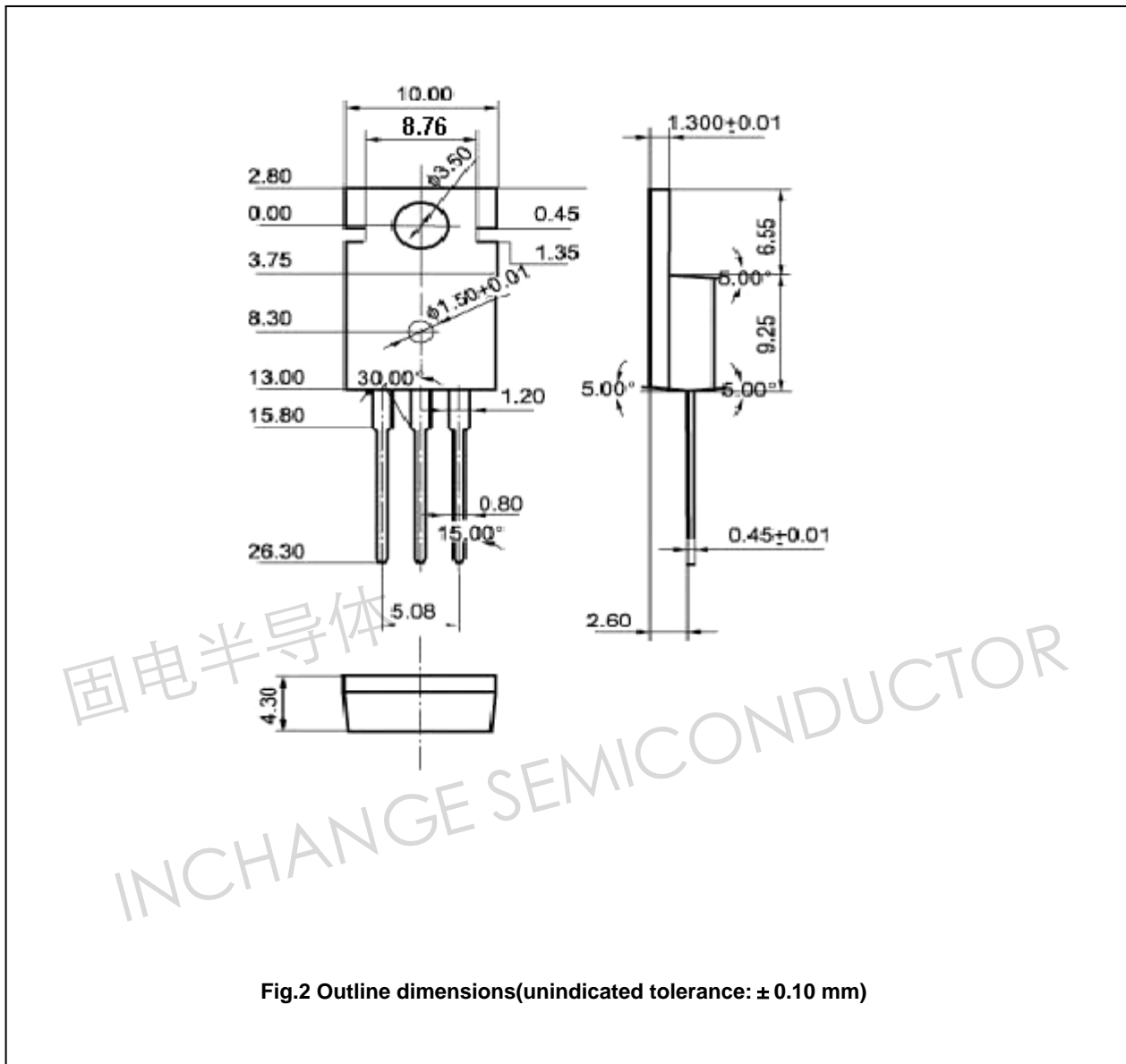


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)