

Silicon PNP Power Transistors

2SA1069 2SA1069A

DESCRIPTION

- With TO-220 package
- Complement to type 2SC2516/2516A
- Low collector saturation voltage

APPLICATIONS

- Switching regulators
- DC-DC converters
- High-frequency power amplifier

PINNING

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

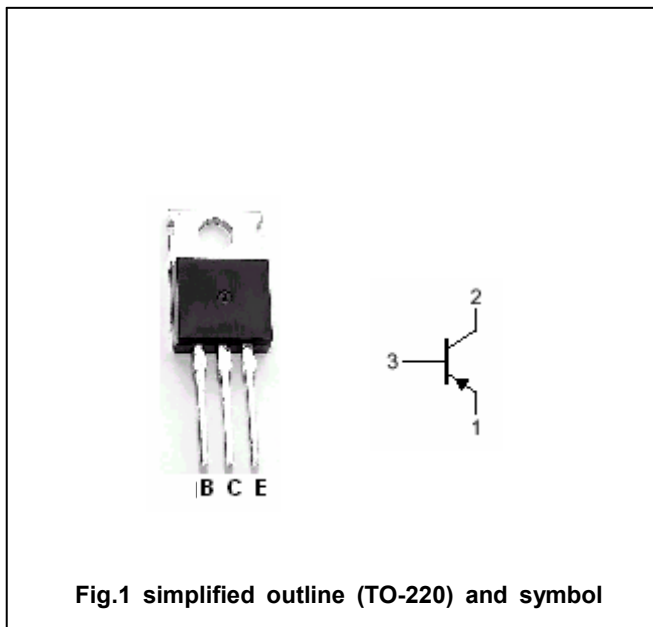


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-80	V
V _{CEO}	Collector-emitter voltage	2SA1069	-60	V
		2SA1069A	-80	
V _{EBO}	Emitter-base voltage	Open collector	-12	V
I _C	Collector current		-5	A
I _{CM}	Collector current-Peak		-10	A
I _B	Base current		-2.5	A
P _C	Collector power dissipation	T _a =25°C	1.5	W
		T _C =25°C	30	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	2SA1069	I _C =-3.0A, I _B =-0.3A; L=1mH	-60			V
		2SA1069A		-80			
V _{CEsat}	Collector-emitter saturation voltage		I _C =-3A; I _B =-0.3A			-0.6	V
V _{BEsat}	Base-emitter saturation voltage		I _C =-3A; I _B =-0.3A			-1.5	V
I _{CBO}	Collector cut-off current	2SA1069	V _{CB} =-60V; I _E =0			-10	μA
		2SA1069A	V _{CB} =-80V; I _E =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			-10	μA
h _{FE-1}	DC current gain		I _C =-0.3A; V _{CE} =-5V	40			
h _{FE-2}	DC current gain		I _C =-3A; V _{CE} =-5V	40		200	

Switching times

t _{on}	Turn-on time	I _C =-3A; V _{CC} =-50V I _{B1} =-I _{B2} =-0.3A; R _L =17Ω			0.5	μs
t _{stg}	Storage time				2.5	μs
t _f	Fall time				0.5	μs

◆ h_{FE-2} Classifications

M	L	K
40-80	60-120	100-200

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PACKAGE OUTLINE

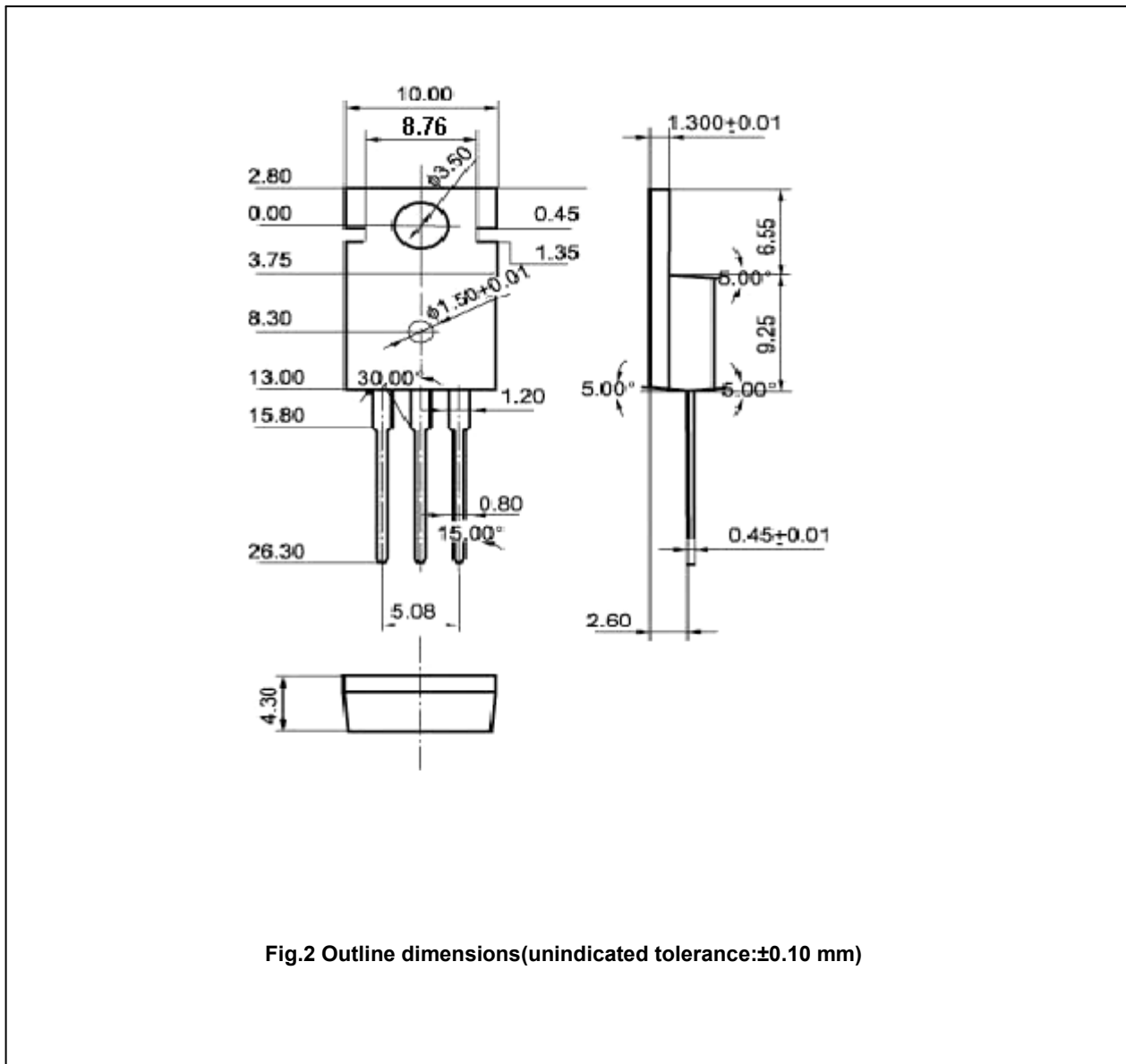


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)