

Silicon PNP Power Transistors

2SA1069 2SA1069A

DESCRIPTION

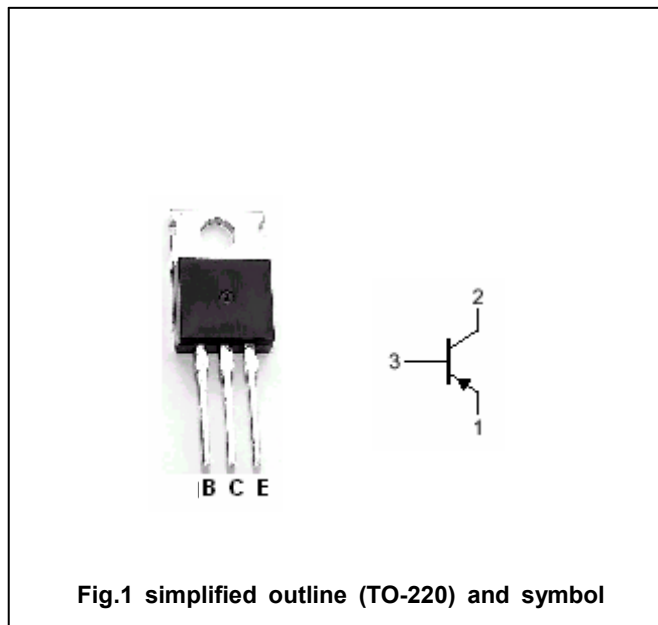
- With TO-220 package
- Complement to type 2SC2516/2516A
- Low collector saturation voltage

APPLICATIONS

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

PINNING

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

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage		Open emitter	-80	V
V_{CEO}	Collector-emitter voltage	2SA1069	Open base	-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		$T_a=25^\circ\text{C}$	1.5	W
			$T_C=25^\circ\text{C}$	30	
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℃ 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

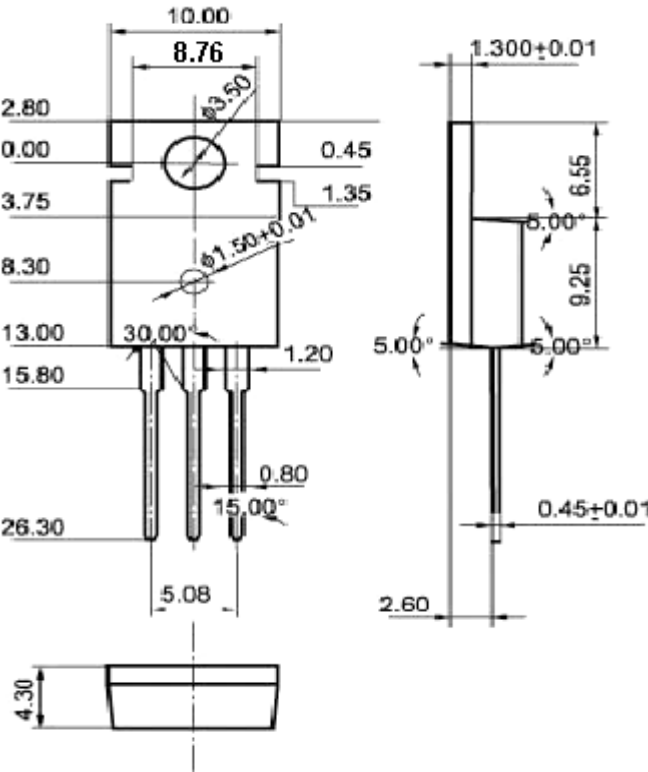


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)