

## Silicon PNP Power Transistors

## 2SA1069 2SA1069A

## DESCRIPTION

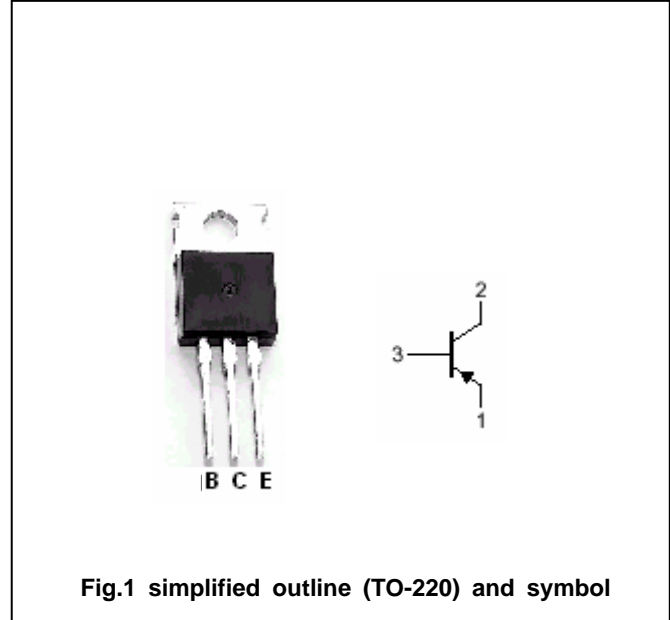
- With TO-220 package
- Complement to type 2SC2516/2516A
- Low collector saturation voltage

## 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( $T_a=25$  )

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	$T_a=25$	1.5	W
		$T_C=25$	30	
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

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

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =-3A; V <sub>CC</sub> =-50V I <sub>B1</sub> =-I <sub>B2</sub> =-0.3A; R <sub>L</sub> =17			0.5	μs
t <sub>stg</sub>	Storage time				2.5	μs
t <sub>f</sub>	Fall time				0.5	μs

◆ h<sub>FE-2</sub> Classifications

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

