

Silicon PNP Power Transistors

2SB1069 2SB1069A

DESCRIPTION

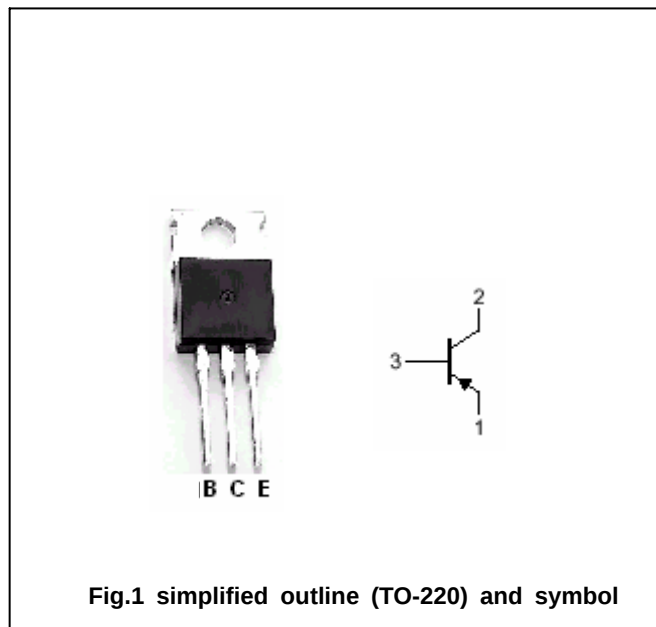
- With TO-220 package
- High speed switching
- Low collector saturation voltage

APPLICATIONS

- For low-voltage switching applications

PINNING

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

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

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

Tj=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		μ s
t _{stg}	Storage time			0.4		μ s
t _f	Fall time			0.1		μ s

◆ h_{FE-2} classifications

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

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PACKAGE OUTLINE

