

Silicon PNP Power Transistors

2SB869

DESCRIPTION

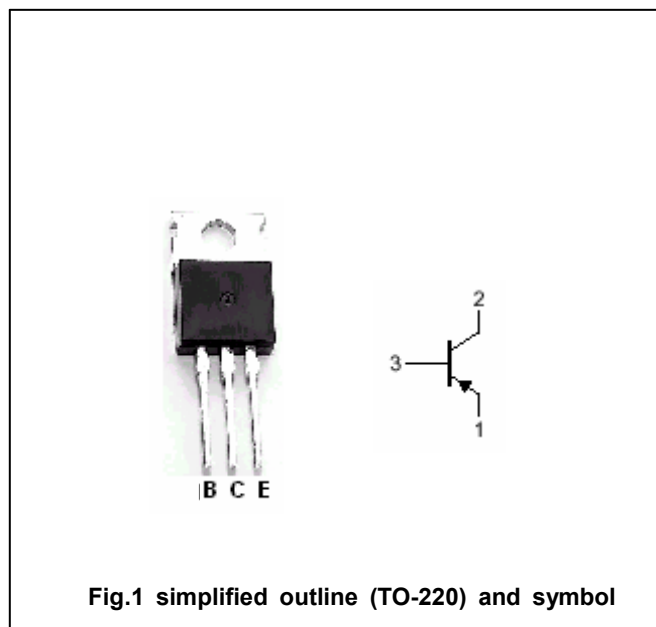
- With TO-220C package
- Complement to type 2SD961
- Low collector saturation voltage
- High collector current capability

APPLICATIONS

- For power 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	Open emitter	-130	V
V_{CEO}	Collector-emitter voltage	Open base	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current (DC)		-5	A
I_{CM}	Collector current-Peak		-10	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-10mA$; $I_B=0$	-80			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-4A$; $I_B=-0.2A$			-0.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=-4A$; $I_B=-0.2A$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-100V$; $I_E=0$			-10	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	$I_C=-2A$; $V_{CE}=-2V$	60		260	
f_T	Transition frequency	$I_C=-0.5A$; $V_{CE}=-10V$		30		MHz

Switching times

t_{on}	Turn-on time	$I_C=-2A$; $I_{B1}=-I_{B2}=-0.2A$		0.13		μs
t_{stg}	Storage time			0.5		μs
t_f	Fall time			0.13		μs

◆ h_{FE-2} Classifications

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

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PACKAGE OUTLINE

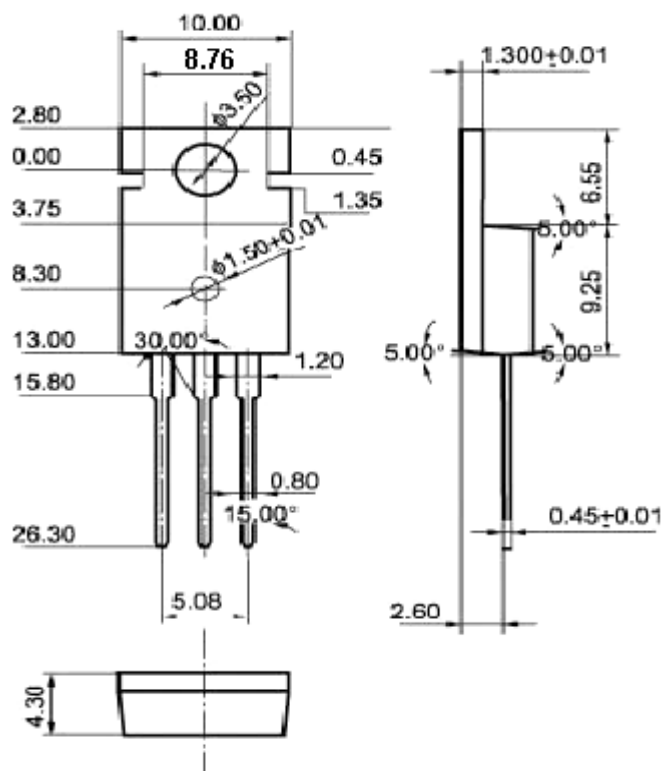


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)