

Silicon PNP Power Transistors

2SB859

DESCRIPTION

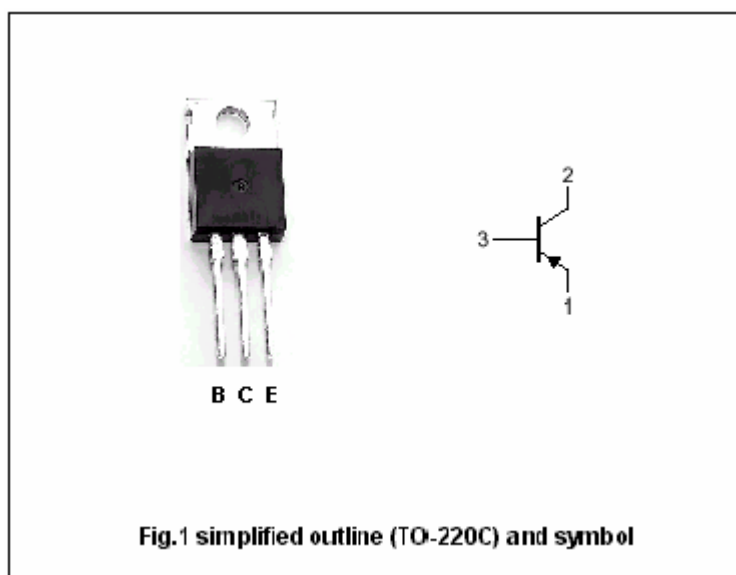
- With TO-220C package
- Complement to type 2SD1135

APPLICATIONS

- Low frequency power amplifier

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-100	V
V_{CEO}	Collector-emitter voltage	Open base	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-4	A
I_{CP}	Collector current-Peak		-8	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-45~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-50mA$; $R_{BE}=\infty$	-80			V
$V_{(BR)EBO}$	Emitter-base breakdown votage	$I_E=-10\mu A$; $I_C=0$	-5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-2 A$; $I_B=-0.2 A$			-2.0	V
V_{BE}	Base-emitter voltage	$I_C=-1A$; $V_{CE}=-5V$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-80V$; $I_E=0$			-0.1	mA
h_{FE-1}	DC current gain	$I_C=-1A$; $V_{CE}=-5V$	60		200	
h_{FE-2}	DC current gain	$I_C=-0.1A$; $V_{CE}=-5V$	35			
C_{ob}	Collector output capacitance	$I_C=0$; $V_{CB}=-20V$; $f=1MHz$		75		pF
f_T	Transition frequency	$I_C=-0.5A$; $V_{CE}=-5V$		20		MHz

◆ h_{FE-1} classifications

B	C
60-120	100-200

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Technical drawing of a mechanical part showing three views: front, side, and bottom views. The dimensions are as follows:

- Front View:**
 - Overall width: 10.00
 - Top width: 8.76
 - Top thickness: 2.80
 - Top hole diameter: $\phi 3.50$
 - Top hole position from left: 0.00
 - Top hole position from right: 0.45
 - Top hole position from center: 1.35
 - Top hole position from bottom: 3.75
 - Top hole position from right edge: 1.20
 - Top hole position from bottom edge: 8.30
 - Top hole position from bottom edge (center): 13.00
 - Top hole position from bottom edge (left): 15.80
 - Top hole position from bottom edge (right): 26.30
 - Top hole position from bottom edge (center): 30.00
 - Top hole position from bottom edge (left): 15.00°
 - Top hole position from bottom edge (right): 0.80
 - Top hole position from bottom edge (center): 5.08
- Side View:**
 - Overall height: 1.300 ± 0.01
 - Top thickness: 6.55
 - Top hole diameter: $\phi 1.50 \pm 0.01$
 - Top hole position from left: 5.00°
 - Top hole position from right: 5.00°
 - Top hole position from bottom: 9.25
 - Top hole position from bottom edge: 5.00°
 - Top hole position from bottom edge (center): 0.45 ± 0.01
 - Top hole position from bottom edge (left): 2.60
- Bottom View:**
 - Overall width: 4.30

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

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