

## Silicon NPN Power Transistors

2SD1135

## DESCRIPTION

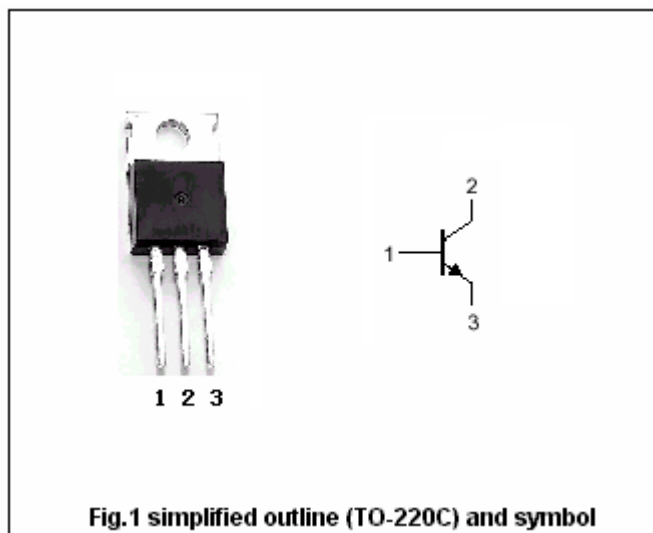
- With TO-220C package
- Complement to type 2SB859

## APPLICATIONS

- For low frequency power amplifier applications

## PINNING

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

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
$I_{CM}$	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

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =50mA; R <sub>BE</sub> =∞	80			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10 μ A; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2 A; I <sub>B</sub> =0.2 A			2.0	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =80V; I <sub>E</sub> =0			0.1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	60		200	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =5V	35			
C <sub>ob</sub>	Collector output capacitance	I <sub>C</sub> =0; V <sub>CB</sub> =20V; f=1MHz		40		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V		10		MHz

◆ h<sub>FE-1</sub> classifications

B	C
60-120	100-200

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PACKAGE OUTLINE

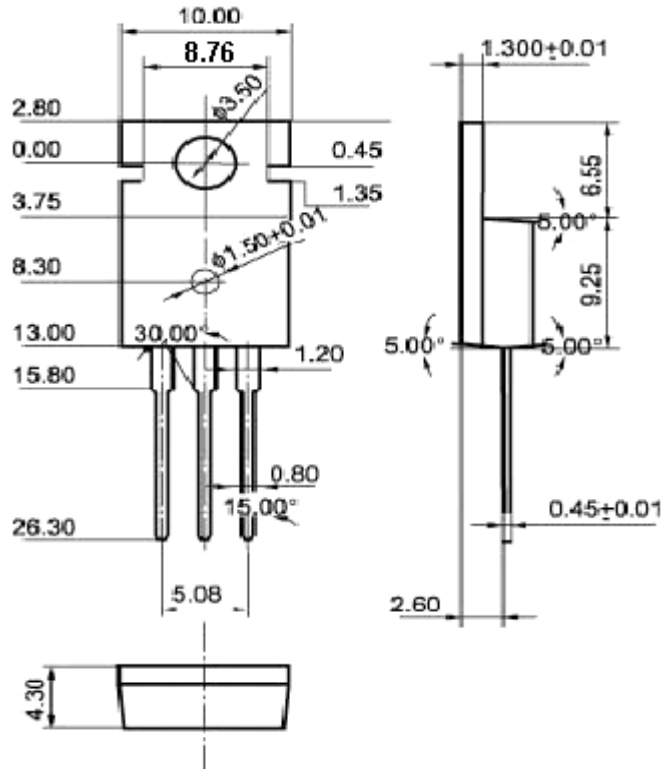


Fig.2 Outline dimensions (unindicated tolerance: ±0.10 mm)

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