

**Silicon PNP Power Transistors**

**2SB1005**

**DESCRIPTION**

- With TO-220C package
- High DC Current Gain
- DARLINGTON

**APPLICATIONS**

- For audio frequency power amplifier applications

**PINNING**

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

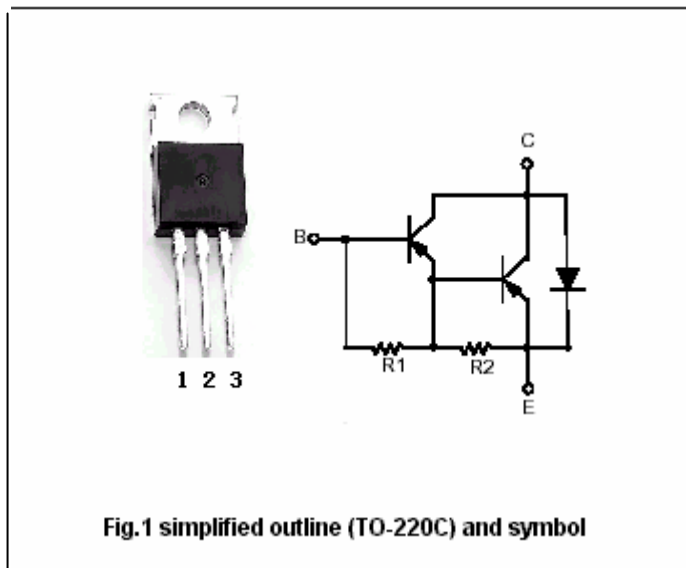


Fig.1 simplified outline (TO-220C) and symbol

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-50	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-50	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current-DC		-4	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	30	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°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> =-30mA, I <sub>B</sub> =0	-50			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1mA, I <sub>E</sub> =0	-50			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1.5A, I <sub>B</sub> =-30mA			-2.5	V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-4A, I <sub>B</sub> =-40mA			-4.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-50V, I <sub>E</sub> =0			-0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-2.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1.5A; V <sub>CE</sub> =-3V	750			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-4A; V <sub>CE</sub> =-3V	100			
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =-4A			3.5	V

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PACKAGE OUTLINE

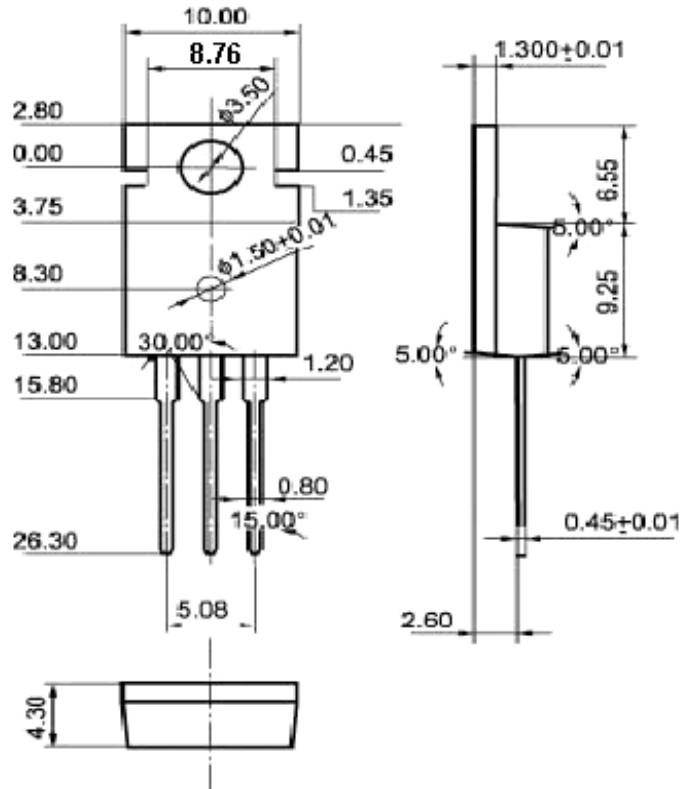


Fig.2 Outline dimensions