

**Silicon PNP Power Transistors**

**2SB703**

**DESCRIPTION**

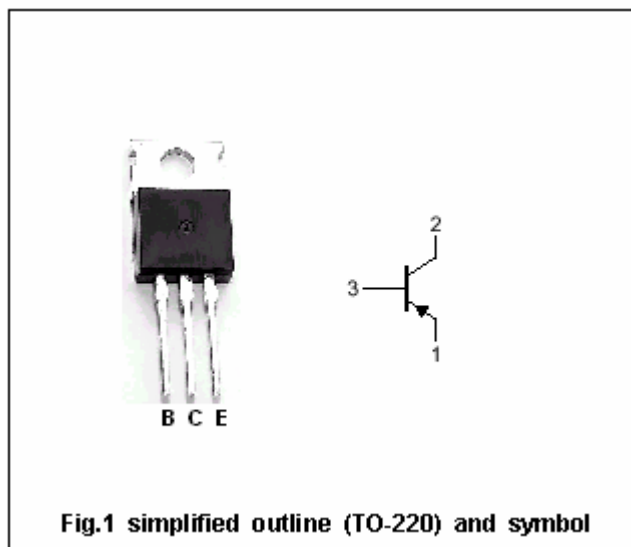
- With TO-220C package
- Complement to type 2SD743
- High power dissipation

**APPLICATIONS**

- Designed for use in audio frequency power amplifier, low speed switching applications

**PINNING**

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



**Absolute maximum ratings (Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-80	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-80	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-4	A
I <sub>CM</sub>	Collector current-peak		-6	A
I <sub>B</sub>	Base current		-1	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25°C	40	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance from junction to case	3.125	°C/W

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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> =-10mA; I <sub>B</sub> =0	-80			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1.0mA; I <sub>E</sub> =0	-80			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1.0mA; I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A			-2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A			-2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-80V; I <sub>E</sub> =0			-10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-3V; I <sub>C</sub> =0			-10	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-20mA ; V <sub>CE</sub> =-5V	30			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-500mA ; V <sub>CE</sub> =-5V	40		200	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-100mA ; V <sub>CE</sub> =-5V, f=1MHz	10			MHz

◆ h<sub>FE-2</sub> Classifications

S	R	Q
40-80	60-120	100-200

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PACKAGE OUTLINE

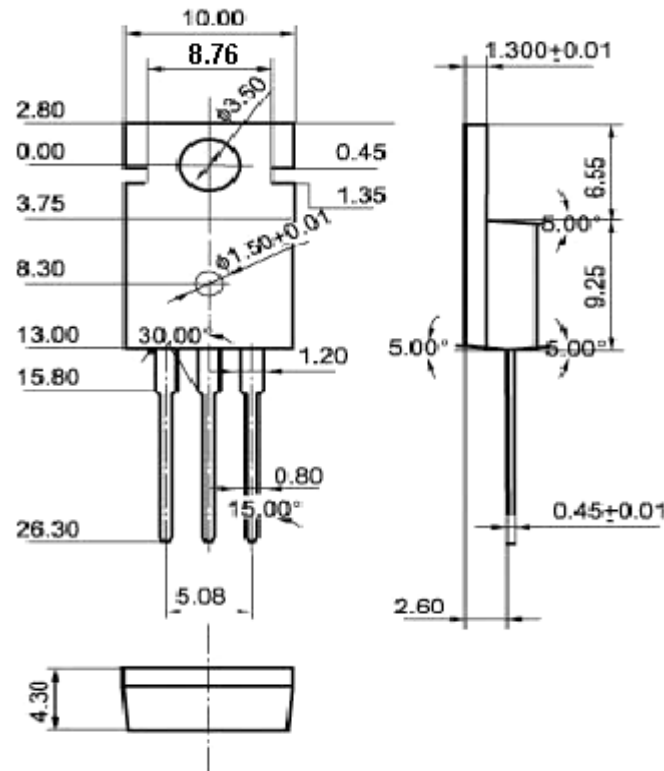


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)