

Silicon PNP Power Transistors

2SB521

**DESCRIPTION**

- With TO-220 package
- Low collector saturation voltage

**APPLICATIONS**

- High current switching applications

**PINNING**

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

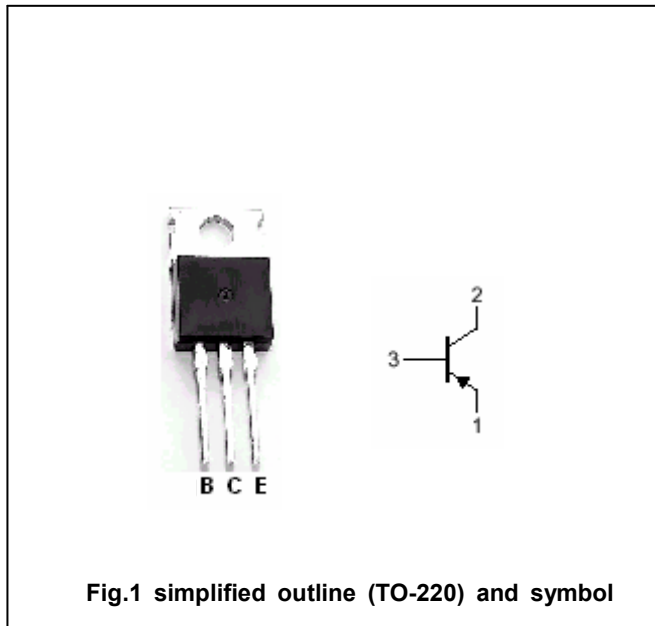


Fig.1 simplified outline (TO-220) and symbol

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-60	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-8	V
I <sub>C</sub>	Collector current		-5	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25°C	43	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> =-10mA , I <sub>B</sub> =0	-60			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA , I <sub>C</sub> =0	-8			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.15A			-0.4	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.15A			-1.2	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-50V; I <sub>E</sub> =0			-1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-8V; I <sub>C</sub> =0			-1	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-2.5A ; V <sub>CE</sub> =-2V	50			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.2A ; V <sub>CE</sub> =-5V		7		MHz

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PACKAGE OUTLINE



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