

Silicon NPN Power Transistors

2SC2523

**DESCRIPTION**

- With TO-3 package
- Complement to type 2SA1073
- Wide area of safe operation

**APPLICATIONS**

- High frequency power amplifier
- Audio power amplifiers
- Switching regulators
- DC-DC converters

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

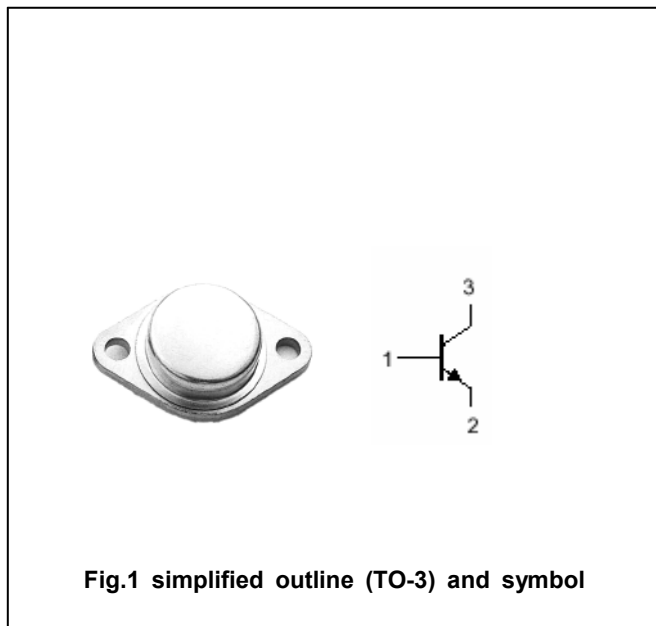


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	160	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	160	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		12	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	120	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-65~150	□

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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> =1mA ; R <sub>BE</sub> =∞	160			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =50μA ; I <sub>E</sub> =0	160			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =50μA ; I <sub>C</sub> =0	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =5A ; I <sub>B</sub> =0.5A			1.8	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =5A ; V <sub>CE</sub> =5V			1.7	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =160V ; I <sub>E</sub> =0			50	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =160V ; R <sub>BE</sub> =∞			1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V ; I <sub>C</sub> =0			50	μA
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> =7A ; V <sub>CE</sub> =5V	40			
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =10V ; f=1MHz		300		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =1A ; V <sub>CE</sub> =10V ; f=10MHz		50		MHz

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)