

Silicon NPN Power Transistors

2SC1723

DESCRIPTION

- With TO-220C package
- High breakdown voltage
- High transition frequency

APPLICATIONS

- Low frequency high voltage power amplifier
- TV power supply driver

PINNING

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

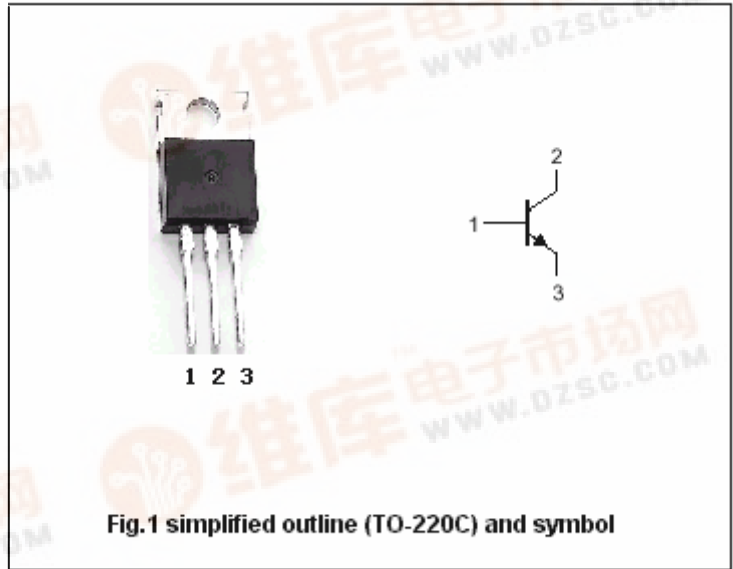


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	300	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	300	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		0.2	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	15	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-45~150	°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> =5mA ; R <sub>BE</sub> =∞	300			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =100 μ A ; I <sub>E</sub> =0	300			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =100 μ A ; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =10mA		0.32	1.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =50m A ; V <sub>CE</sub> =10V		0.66	0.9	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =250V ; I <sub>E</sub> =0			0.1	μ A
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =250V ; R <sub>BE</sub> =∞			2	μ A
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =50m A ; V <sub>CE</sub> =10V	40		200	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =30m A ; V <sub>CE</sub> =20V		60		MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =50V ; f=1MHz		6.2		pF

