

**Silicon NPN Power Transistors**

**2SC1777**

**DESCRIPTION**

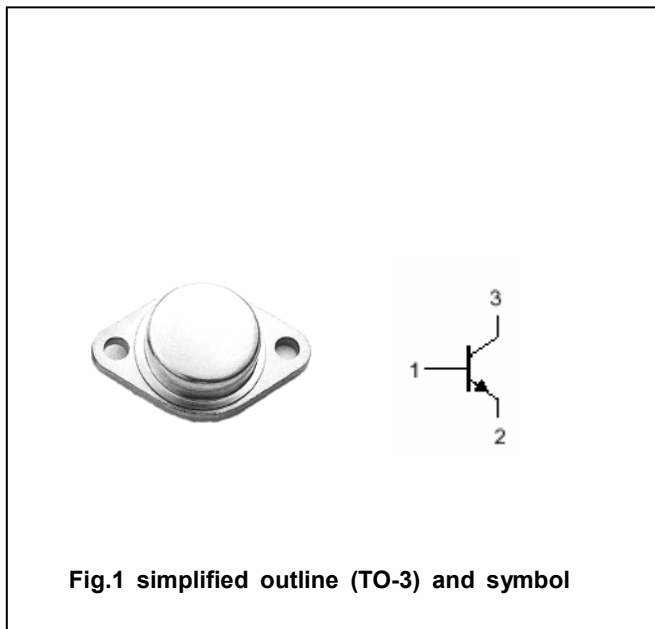
- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area

**APPLICATIONS**

- For use in high power audio amplifier applications and high voltage switching regulator circuits

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	70	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	70	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		6	A
P <sub>D</sub>	Total Power Dissipation	T <sub>C</sub> =25□	50	W
T <sub>j</sub>	Junction temperature		175	□
T <sub>stg</sub>	Storage temperature		-55~175	□

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =50mA ; I <sub>B</sub> =0	70			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	6			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =0.3A			1.0	V
V <sub>BE sat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =0.3A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =70V ; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =6V ; I <sub>C</sub> =0			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =5A ; V <sub>CE</sub> =4V	30		150	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =12V		10		MHz

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PACKAGE OUTLINE

