

Silicon NPN Power Transistors

2SC1777

DESCRIPTION

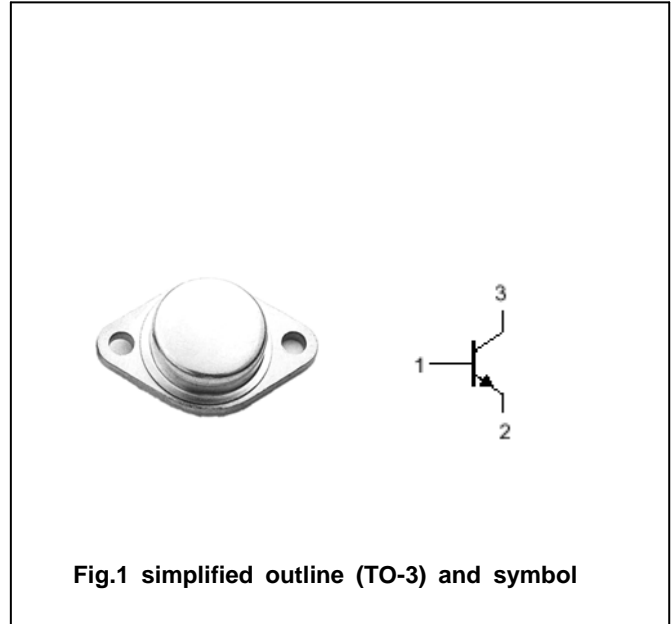
- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area

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($T_a = ^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	70	V
V_{CEO}	Collector-emitter voltage	Open base	70	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		6	A
P_D	Total Power Dissipation	$T_C = 25^\circ\text{C}$	50	W
T_j	Junction temperature		175	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~175	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =50mA ; I _B =0	70			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A ; I _B =0.3A			1.0	V
V _{BE sat}	Base-emitter saturation voltage	I _C =3A ; I _B =0.3A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =70V ; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V ; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =5A ; V _{CE} =4V	30		150	
f _T	Transition frequency	I _C =0.5A ; V _{CE} =12V		10		MHz

PACKAGE OUTLINE

