

SPTECH Product Specification

SPTECH Silicon NPN Power Transistors

2SC1777

DESCRIPTION

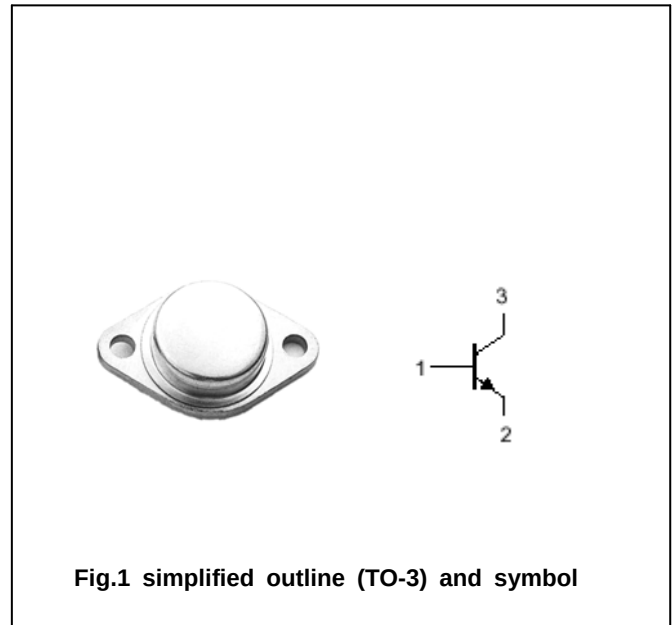
- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area

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

$T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	$I_C=50\text{mA}$; $I_B=0$	70			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1\text{mA}$; $I_C=0$	6			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3\text{A}$; $I_B=0.3\text{A}$			1.0	V
$V_{BE sat}$	Base-emitter saturation voltage	$I_C=3\text{A}$; $I_B=0.3\text{A}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=70\text{V}$; $I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=6\text{V}$; $I_C=0$			0.1	mA
h_{FE}	DC current gain	$I_C=5\text{A}$; $V_{CE}=4\text{V}$	30		150	
f_T	Transition frequency	$I_C=0.5\text{A}$; $V_{CE}=12\text{V}$		10		MHz

PACKAGE OUTLINE

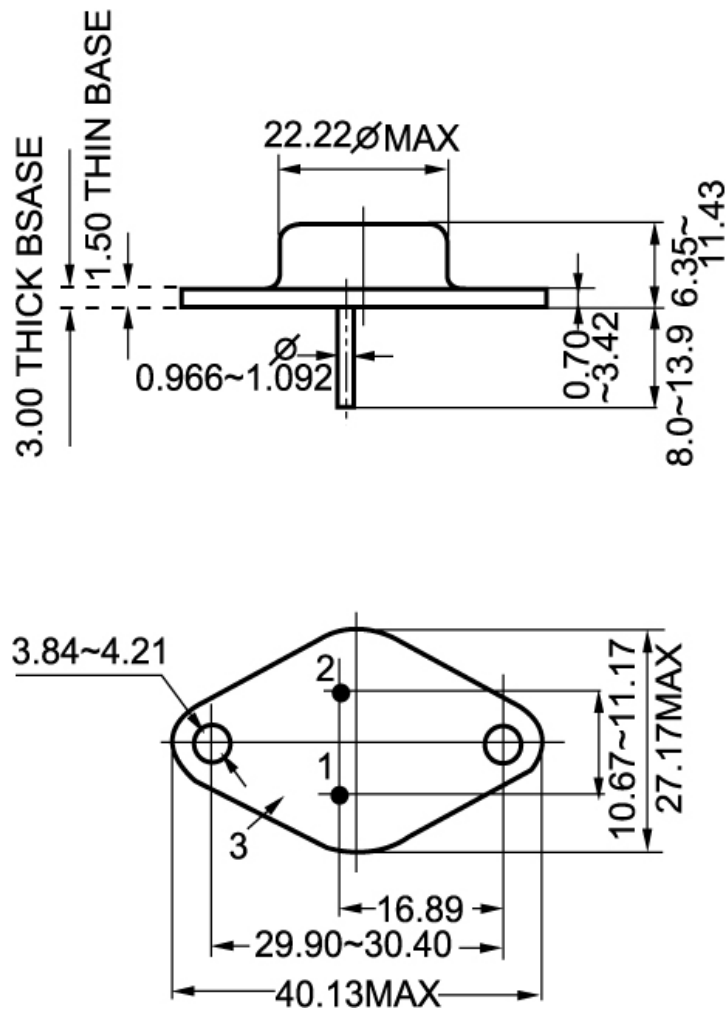


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)