

Silicon NPN Power Transistors

2SC3577

DESCRIPTION

- With TO-3PFa package
- High breakdown voltage
- High speed

APPLICATIONS

- For high speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

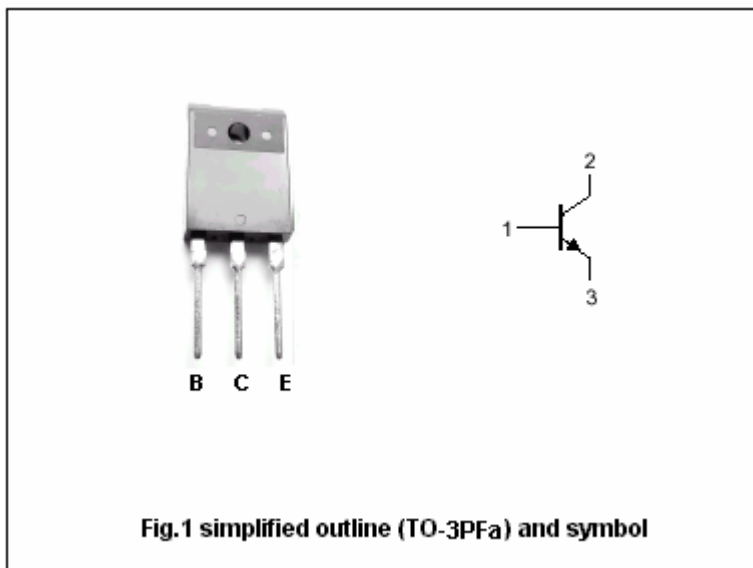


Fig.1 simplified outline (TO-3PFa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	850	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	650	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		5	A
I <sub>CM</sub>	Collector current-peak		10	A
I <sub>B</sub>	Base current		3	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	80	W
		T <sub>a</sub> =25°C	3	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.5A; L=50mH	650			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =0.6A			1.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =0.6A			1.5	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CB</sub> =800V; V <sub>BE</sub> =0			50	μA
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> =10mA ; V <sub>CE</sub> =5V	10			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =3A ; V <sub>CE</sub> =5V	6			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V		6		MHz

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =3A; V <sub>CC</sub> =250V I <sub>B1</sub> =0.6A; I <sub>B2</sub> =-1.2A			1.0	μs
t <sub>stg</sub>	Storage time				2.5	μs
t <sub>f</sub>	Fall time				0.5	μs

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance:±0.30mm)