

# Silicon Power Transistors

# 2SC2246

## DESCRIPTION

- High voltage ,high speed
- With TO-3 package

## APPLICATIONS

- Power switching
- Power amplification
- power driver

## PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

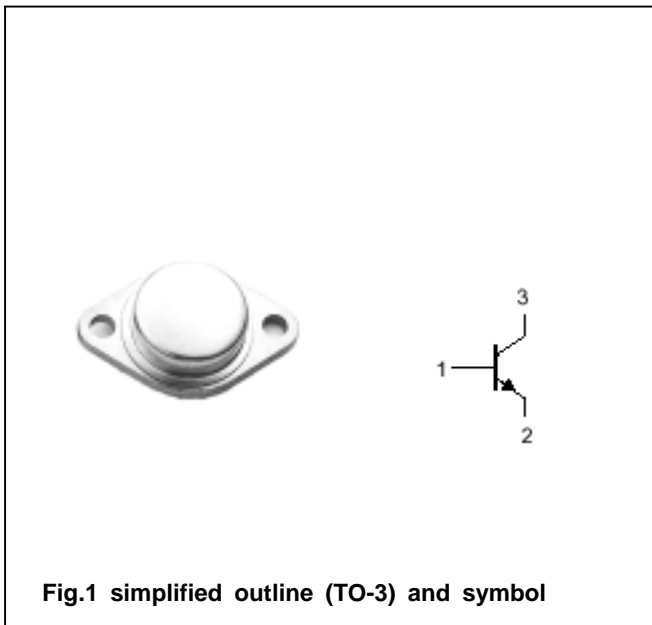


Fig.1 simplified outline (TO-3) and symbol

## Absolute maximum ratings(Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>CB0</sub>	Collector-base voltage	Open emitter	450	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	400	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		15	A
I <sub>CM</sub>	Collector current-Peak		30	A
I <sub>B</sub>	Base current		6	A
P <sub>T</sub>	Total power dissipation	T <sub>mb</sub> =25	100	W
T <sub>j</sub>	Junction temperature		200	
T <sub>stg</sub>	Storage temperature		-65~200	

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-mb</sub>	Thermal resistance from junction to mounting base	1.0	/W

**CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.1A ; L=25mH	400			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =6A I <sub>B</sub> =1.2A			1.2	V
V <sub>Besat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =6A I <sub>B</sub> =1.2A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =450V I <sub>E</sub> =0 T <sub>C</sub> =125			1 4	mA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =400V I <sub>B</sub> =0			5.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =6A ; V <sub>CE</sub> =5V	10			

Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =6A I <sub>B1</sub> =- I <sub>B2</sub> =1.2A			1.0	μs
t <sub>s</sub>	Storage time				2.0	μs
t <sub>f</sub>	Fall time				1.0	μs

PACKAGE OUTLINE

