

Silicon NPN Power Transistors

2SC2899

DESCRIPTION

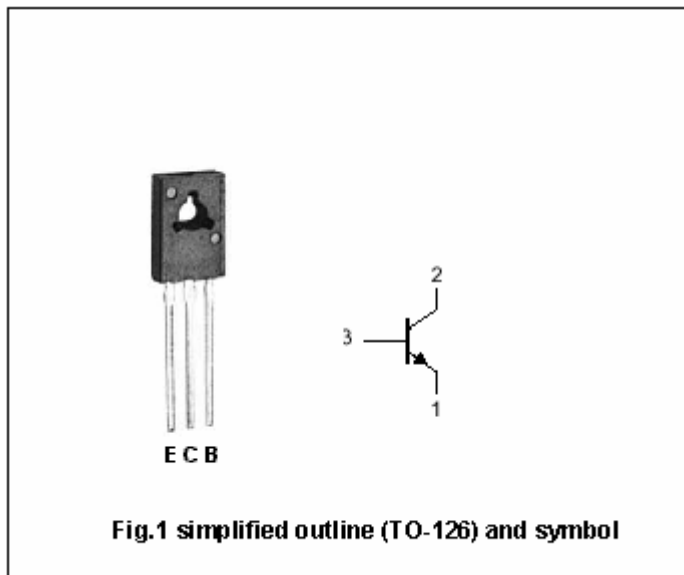
- With TO-126 package
- High voltage,high speed

APPLICATIONS

- For high speed and high voltage switching applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	400	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	10	V
I <sub>C</sub>	Collector current		0.5	A
I <sub>CM</sub>	Collector current-peak		1.0	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	0.75	W
		T <sub>C</sub> =25°C	10	
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> =0.1A; R <sub>BE</sub> =∞, L=100mH	400			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA; I <sub>C</sub> =0	10			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =250mA; I <sub>B</sub> =50m A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =250mA ; I <sub>B</sub> =50m A			1.5	V
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =250mA ; V <sub>CE</sub> =5V	15			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =500mA ; V <sub>CE</sub> =5V	7			
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =400V; I <sub>E</sub> =0			20	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =350V; R <sub>BE</sub> =∞			50	μA

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =0.5A; I <sub>B1</sub> =-I <sub>B2</sub> =0.1A V <sub>CC</sub> ≈150V			1.0	μs
t <sub>stg</sub>	Storage time				2.0	μs
t <sub>f</sub>	Fall time				1.0	μs

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PACKAGE OUTLINE

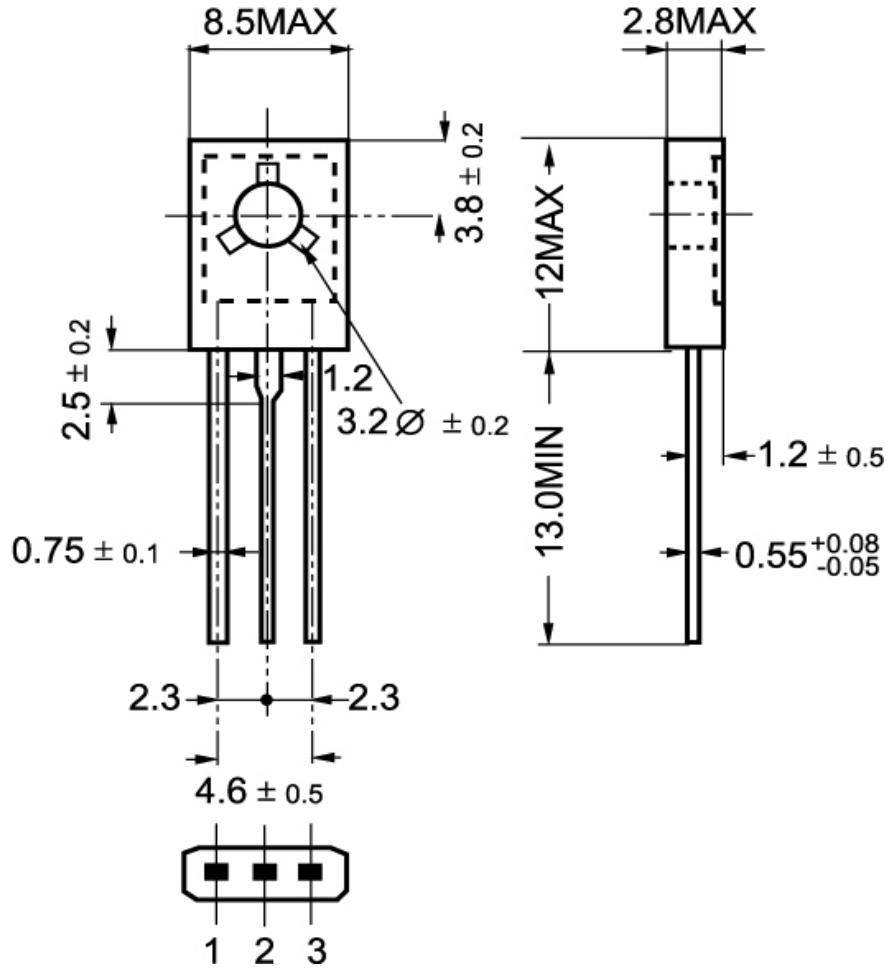


Fig.2 outline dimensions

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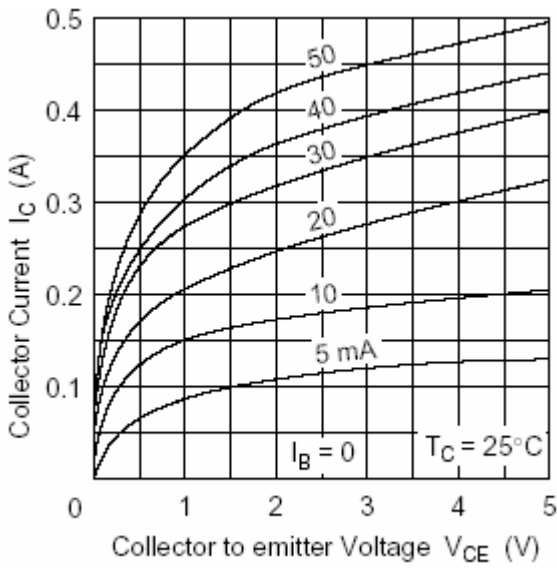


Fig.3 Static Characteristic

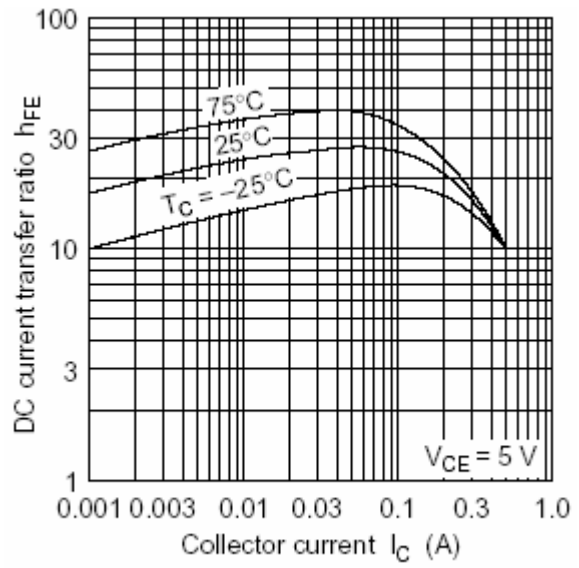


Fig.4 DC current Gain

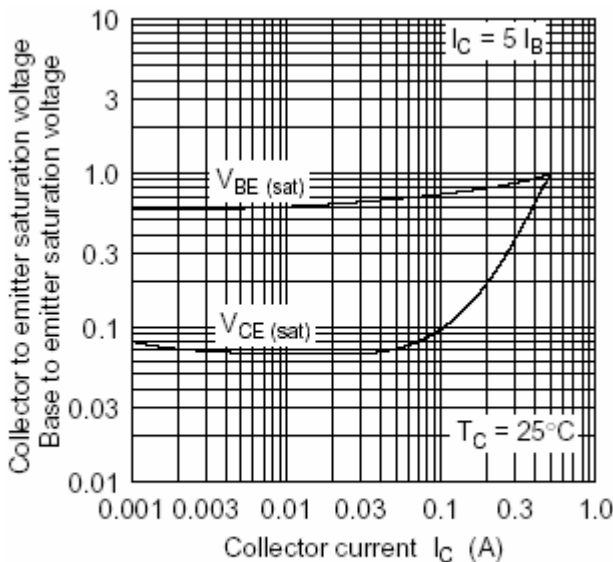


Fig.5 Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

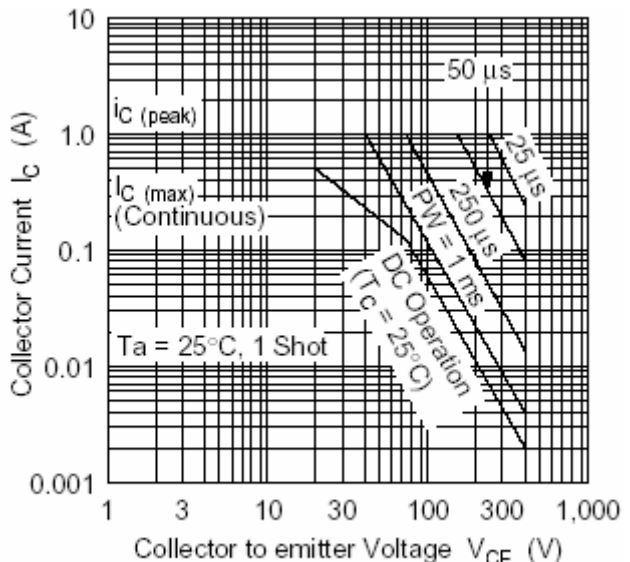


Fig.6 Safe Operating Area