

Silicon NPN Power Transistors

2SC2899

DESCRIPTION

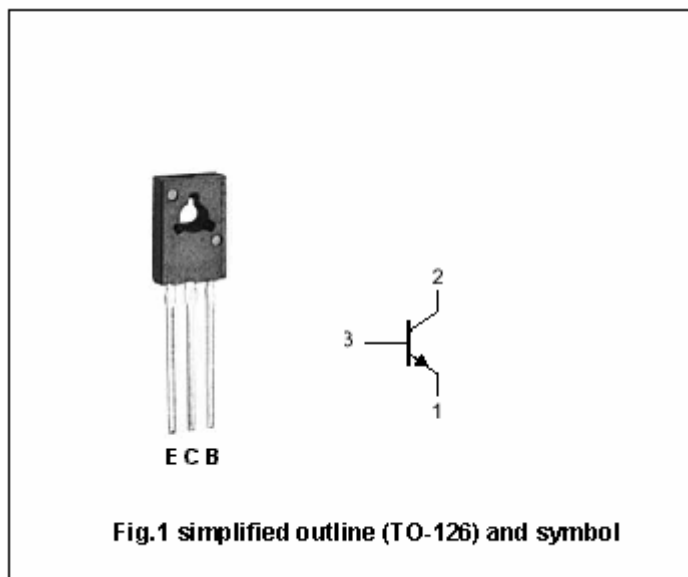
- With TO-126 package
- High voltage,high speed

APPLICATIONS

- For high speed and high voltage switching applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current		0.5	A
I_{CM}	Collector current-peak		1.0	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	0.75	W
		$T_C=25^\circ\text{C}$	10	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1A$; $R_{BE}=\infty$, $L=100mH$	400			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10mA$; $I_C=0$	10			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=250mA$; $I_B=50mA$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=250mA$; $I_B=50mA$			1.5	V
h_{FE-1}	DC current gain	$I_C=250mA$; $V_{CE}=5V$	15			
h_{FE-2}	DC current gain	$I_C=500mA$; $V_{CE}=5V$	7			
I_{CBO}	Collector cut-off current	$V_{CB}=400V$; $I_E=0$			20	μA
I_{CEO}	Collector cut-off current	$V_{CE}=350V$; $R_{BE}=\infty$			50	μA

Switching times

t_{on}	Turn-on time	$I_C=0.5A$; $I_{B1}=-I_{B2}=0.1A$ $V_{CC}\approx 150V$			1.0	μs
t_{stg}	Storage time				2.0	μs
t_f	Fall time				1.0	μs

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PACKAGE OUTLINE

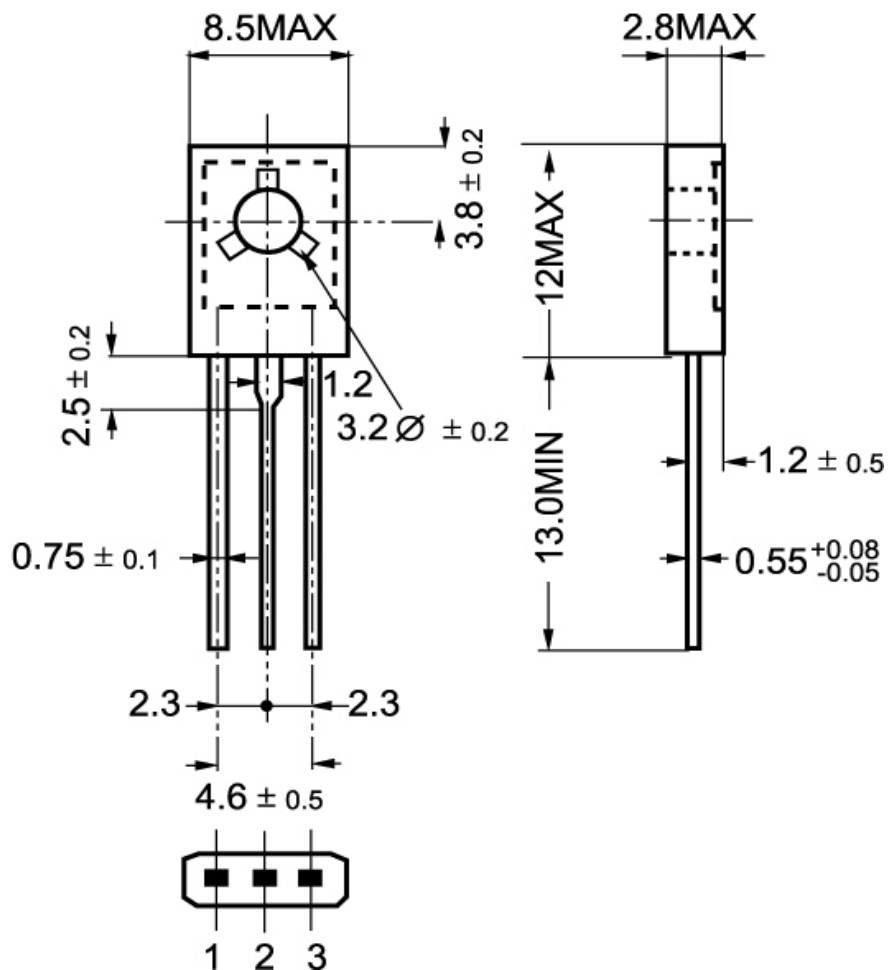


Fig.2 outline dimensions

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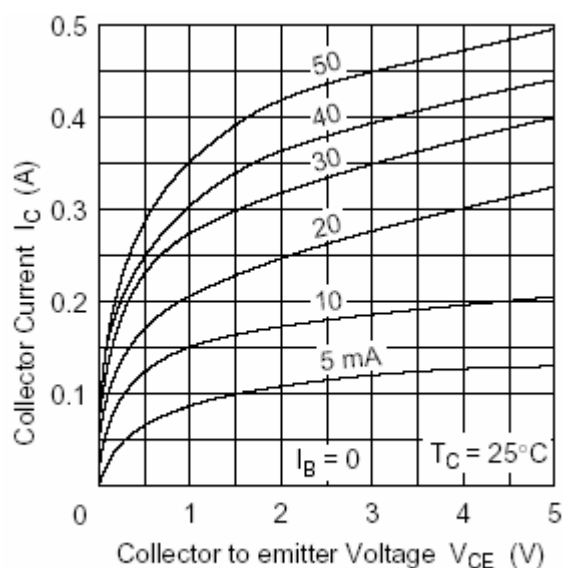


Fig.3 Static Characteristic

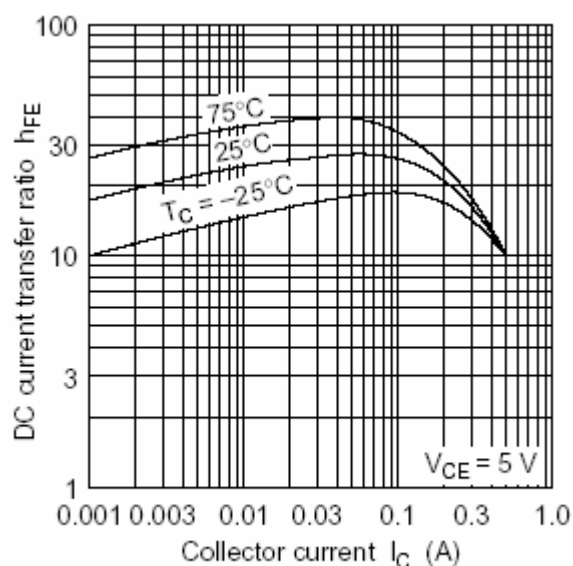


Fig.4 DC current Gain

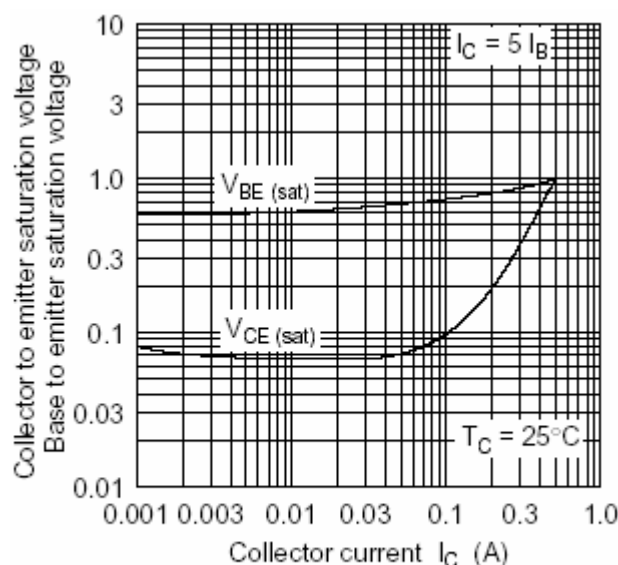
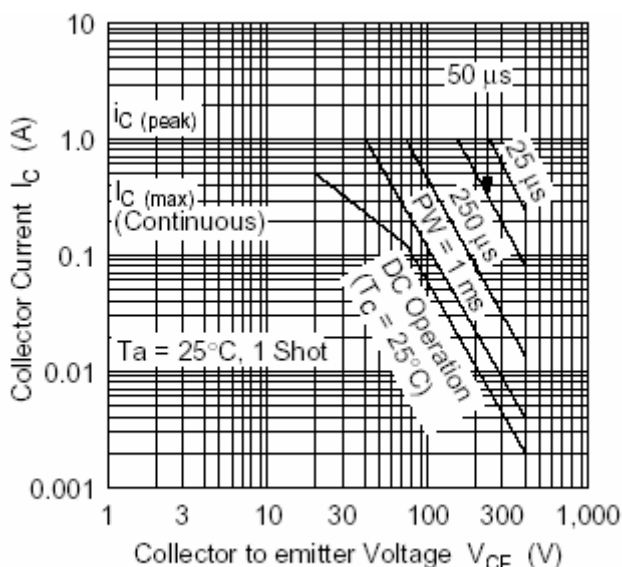
Fig.5 Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

Fig.6 Safe Operating Area