

Silicon NPN Power Transistors

2SC1568

DESCRIPTION

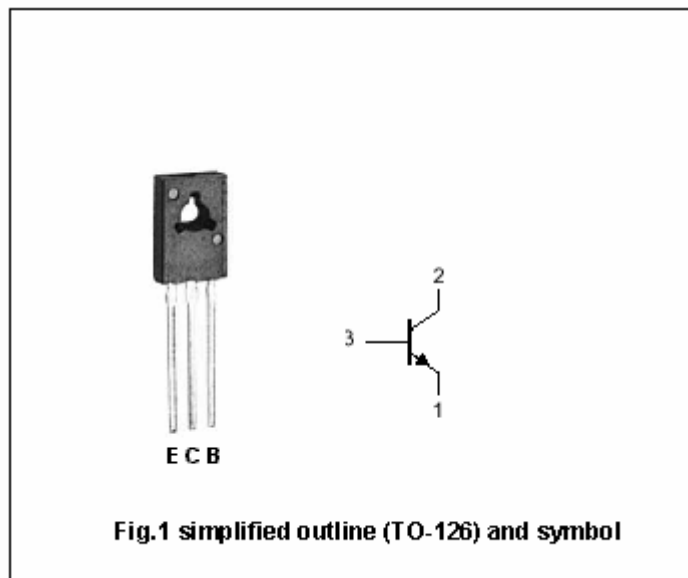
- With TO-126 package
- Complement to type 2SA900
- Low collector saturation voltage

APPLICATIONS

- For low voltage type medium output power amplification

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	18	V
V_{CEO}	Collector-emitter voltage	Open base	18	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		1	A
I_{CM}	Collector current-peak		2	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	1.2	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A ; I _B =50m A			0.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =0.5A ; I _B =50m A			1.2	V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =10μA ; I _E =0	18			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA ; I _B =0	18			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA ; I _C =0	5			V
h _{FE-1}	DC current gain	I _C =500mA ; V _{CE} =2V	90		280	
h _{FE-2}	DC current gain	I _C =1.5A ; V _{CE} =2V	50			
I _{CBO}	Collector cut-off current	V _{CB} =10V ; I _E =0			1	μA
I _{CEO}	Collector cut-off current	V _{CE} =18V ; I _B =0			10	μA
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =6V ; f=1MHz		12		pF
f _T	Transition frequency	I _E =-50mA ; V _{CB} =6V ; f=200MHz		150		MHz

◆ h_{FE-1} classifications

Q	R	S
90-155	130-210	180-280

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PACKAGE OUTLINE

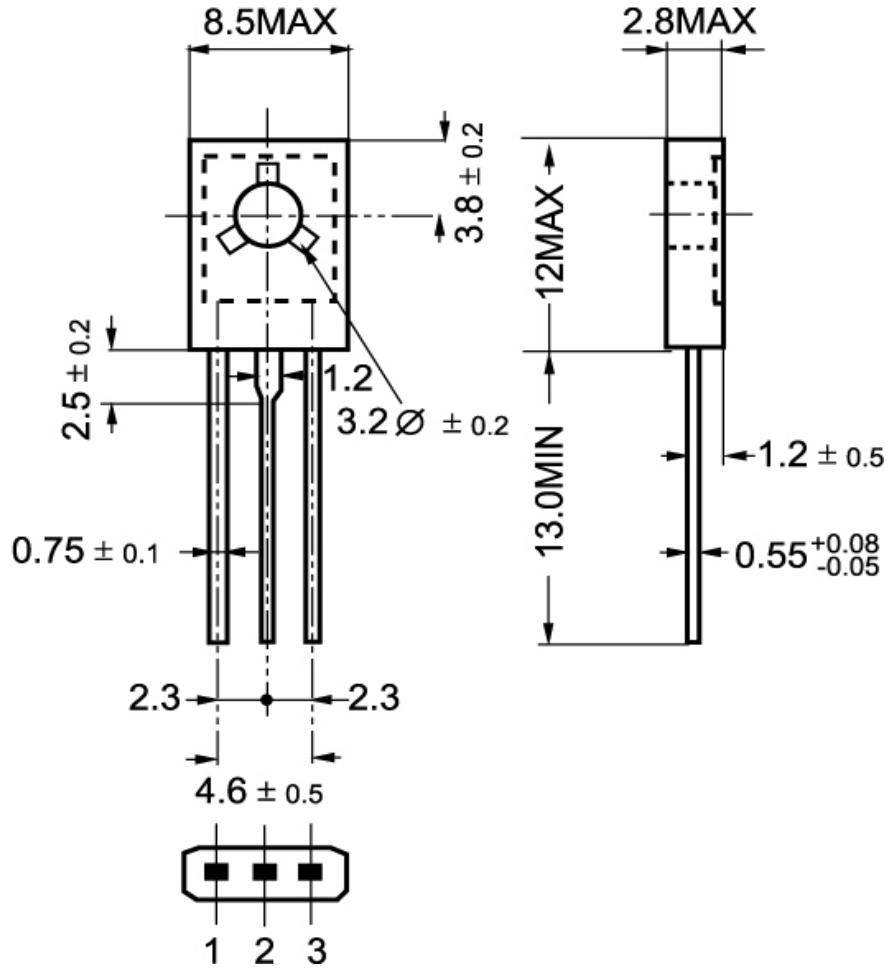


Fig.2 outline dimensions

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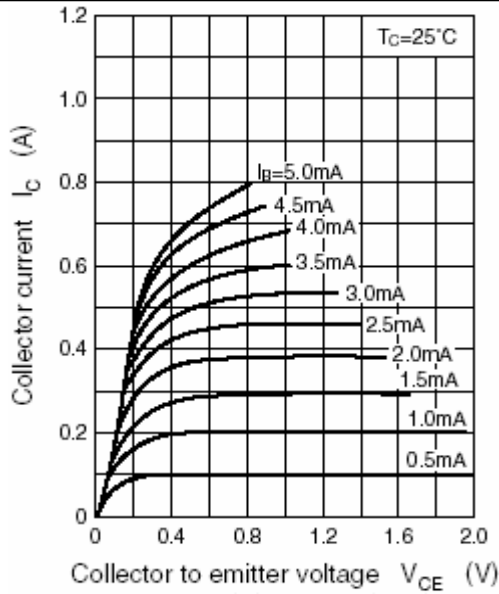


Fig.3 Static Characteristic

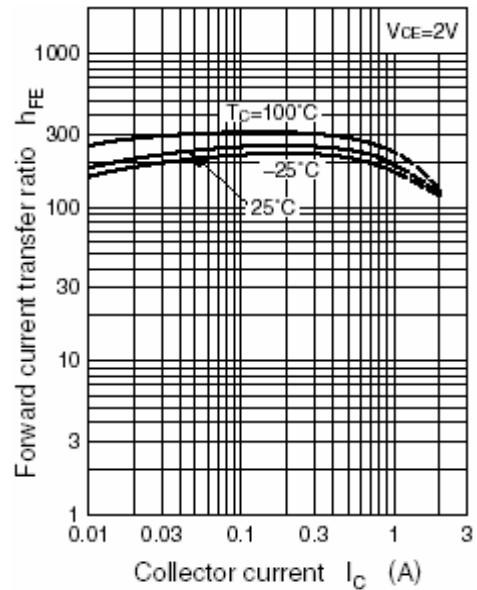


Fig.4 DC current Gain

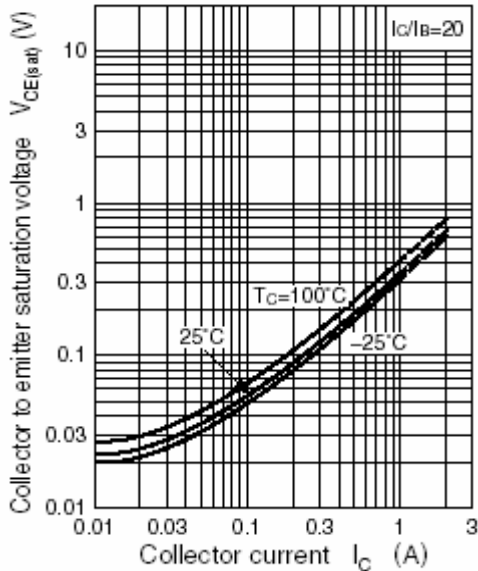


Fig.5 Collector-Emitter Saturation Voltage

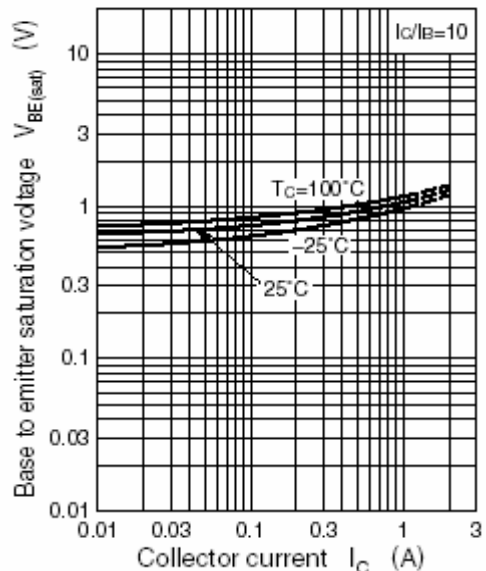


Fig.6 Base-Emitter Saturation Voltage

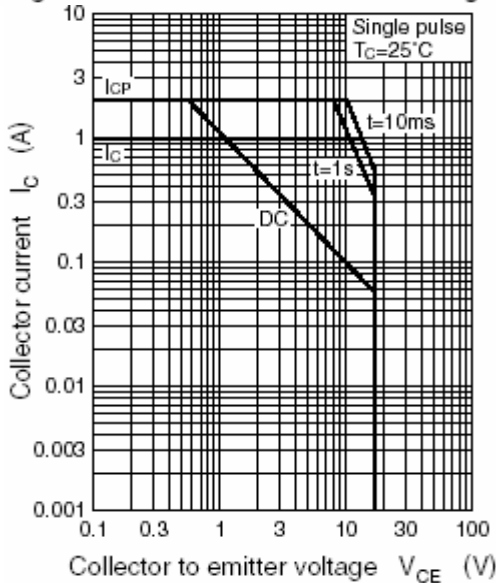


Fig.7 Safe Operating Area