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

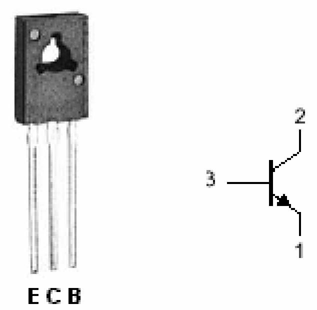

Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings (Ta=25□)

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□	1.2	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

CHARACTERISTICS

T_j=25□ 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

PACKAGE OUTLINE

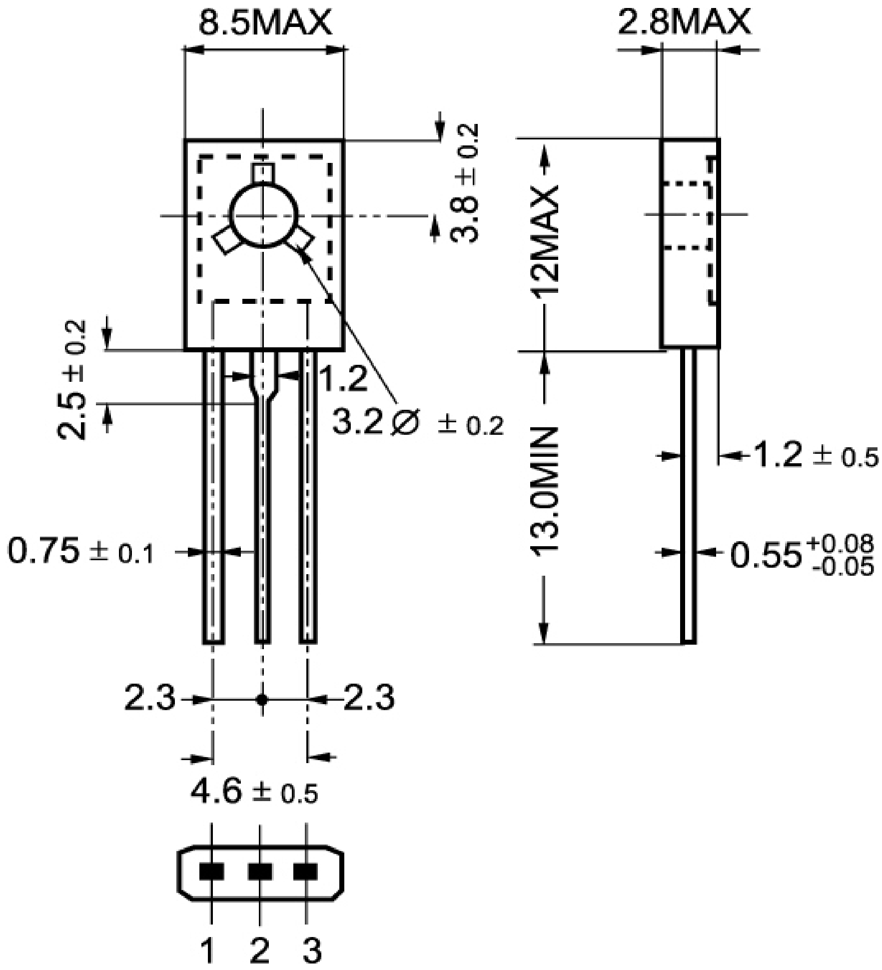

Fig.2 outline dimensions

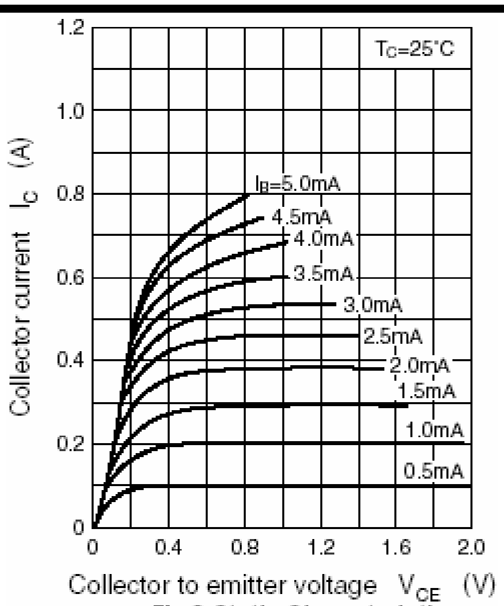

Fig.3 Static Characteristic

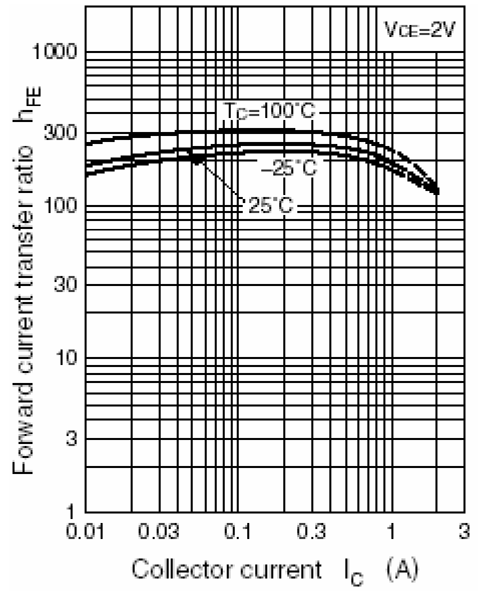

Fig.4 DC current Gain

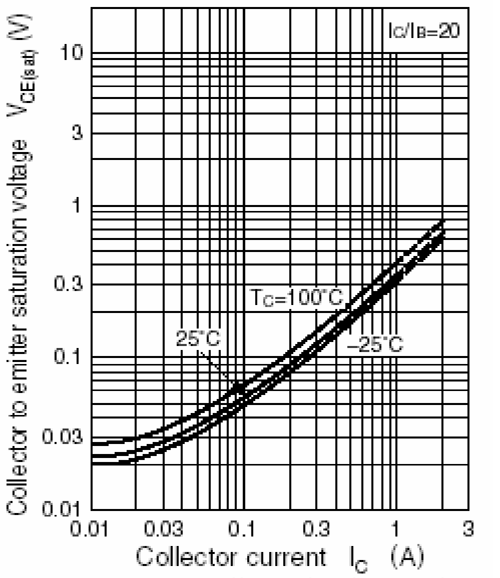

Fig.5 Collector-Emitter Saturation Voltage

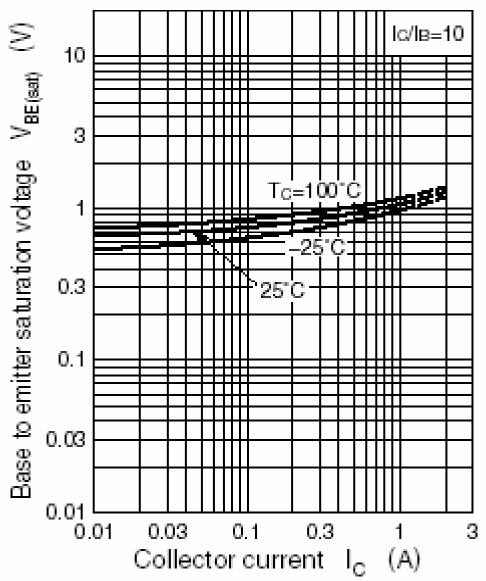

Fig.6 Base-Emitter Saturation Voltage

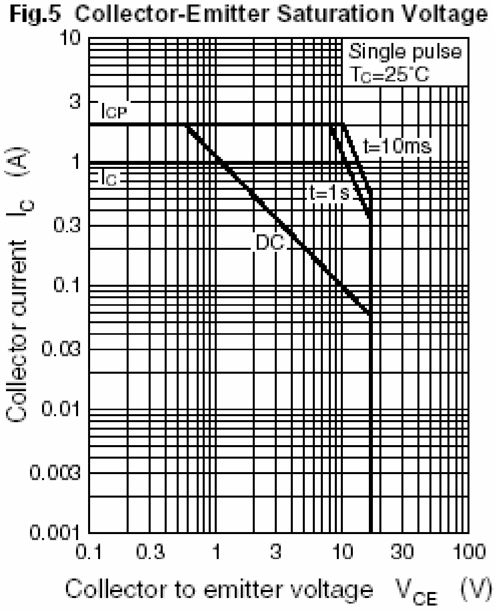

Fig.7 Safe Operating Area