

Silicon PNP Power Transistors

2SA1110

DESCRIPTION

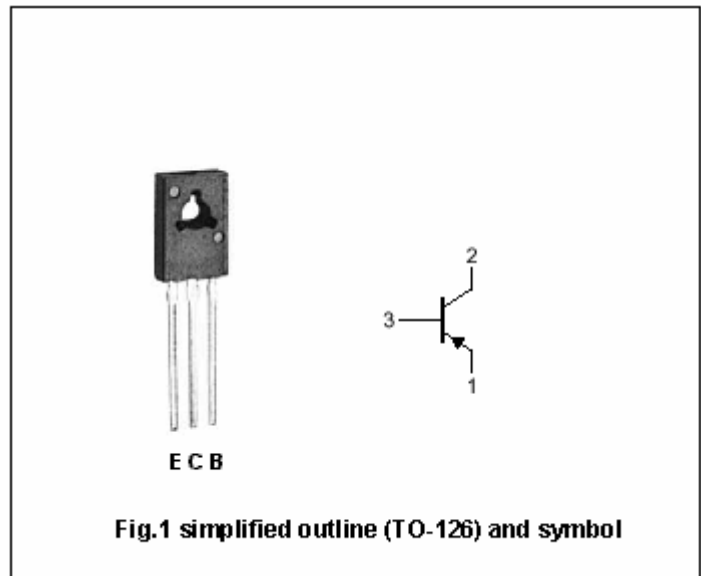
- With TO-126 package
- Complement to type 2SC2590
- Excellent current I_C characteristics of forward current transfer ratio h_{FE} vs. collector
- High transition frequency f_T
- Optimum for the driver stage of a 40w to 60w output amplifier

APPLICATIONS

- For low-frequency power amplification

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-120	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current (DC)		-0.5	A
I_{CM}	Collector current-Peak		-1.0	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	1.2*	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Note) *: Without heat sink

Silicon PNP Power Transistors

2SA1110

CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-100μA; I _B =0	-120			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-10μA ; I _C =0	-5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-0.3A ; I _B =-30mA			-1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-0.3A ; I _B =-30mA			-1.2	V
h _{FE-1}	DC current gain	I _C =-150mA ; V _{CE} =-10V	65		330	
h _{FE-2}	DC current gain	I _C =-0.5A ; V _{CE} =-5V	50	100		
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V; f=1MHz			30	pF
f _T	Transition frequency	I _C =-50mA ; V _{CB} =-10V,		200		MHz

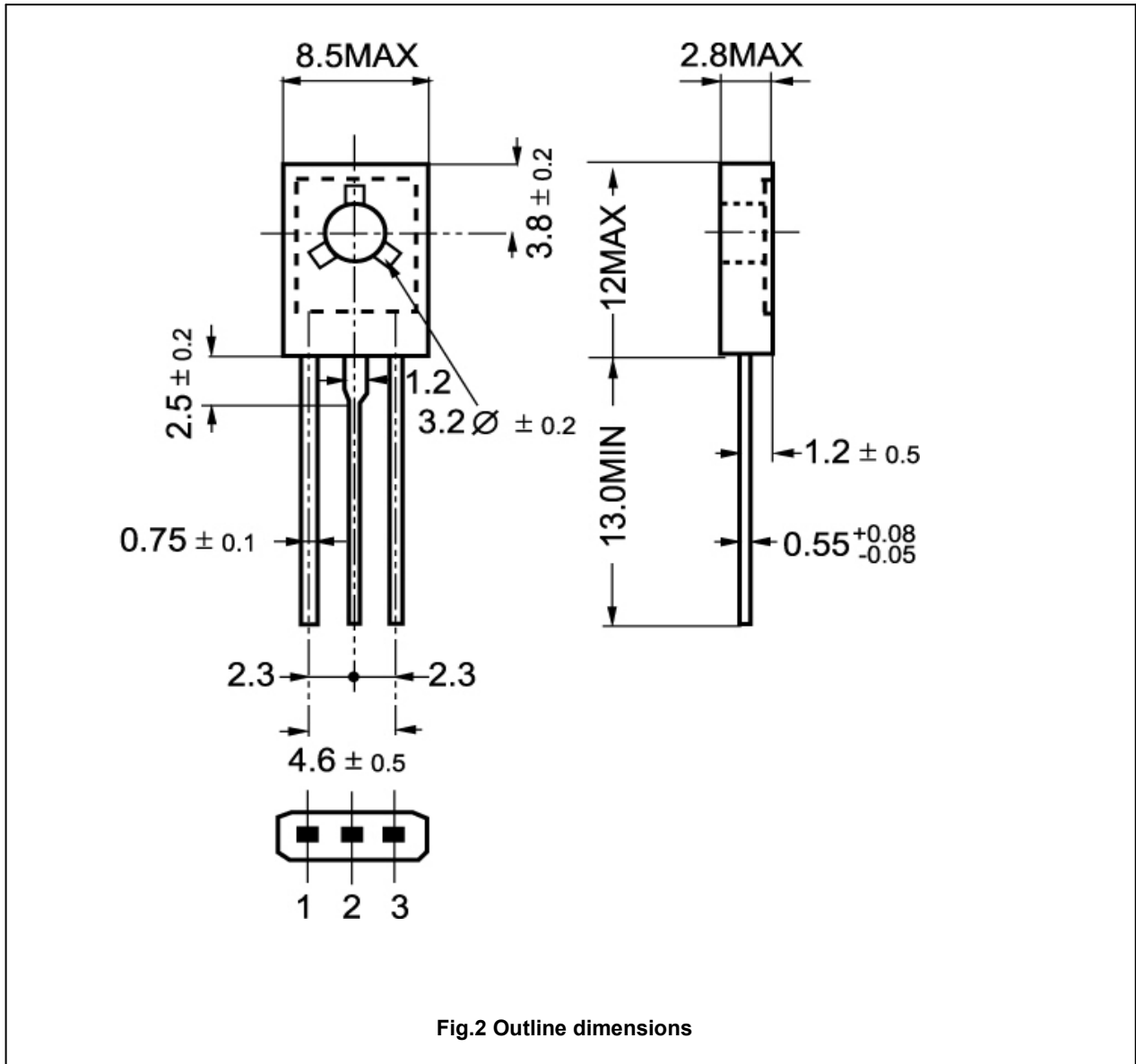
◆ h_{FE-1} Classifications

P	Q	R	S
65-110	90-155	130-220	185-330

Silicon PNP Power Transistors

2SA1110

PACKAGE OUTLINE



Silicon PNP Power Transistors

2SA1110

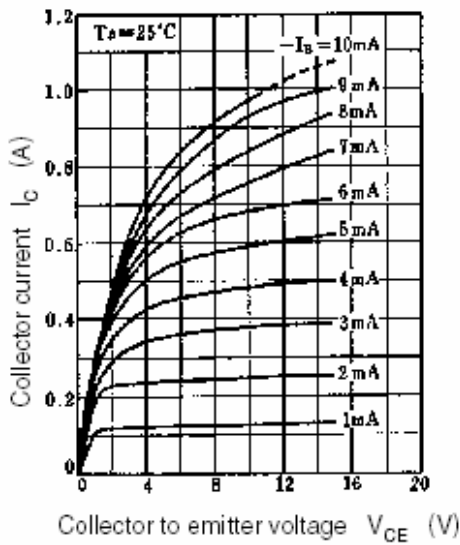


Fig.3 Static Characteristic

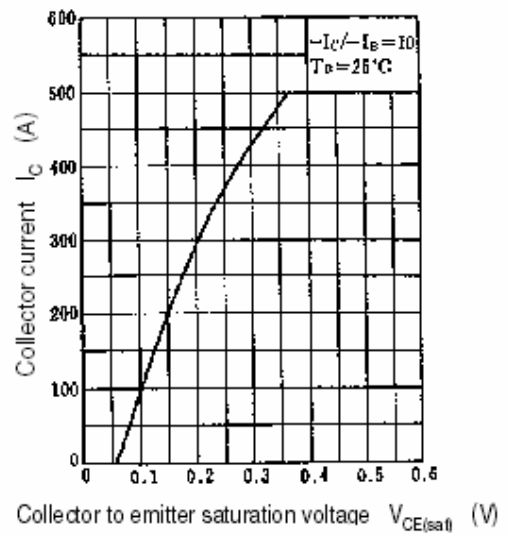


Fig.4 $I_C - V_{CE(sat)}$

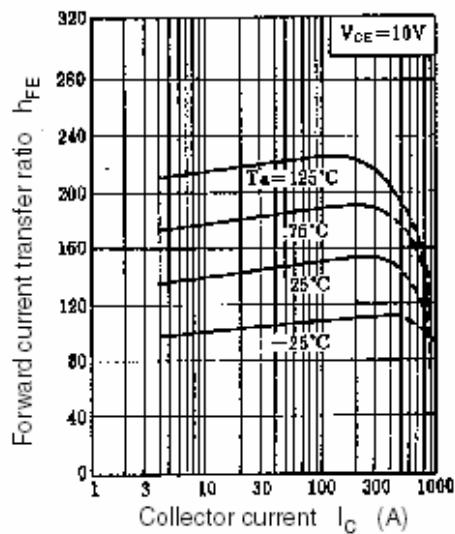


Fig.5 DC current Gain

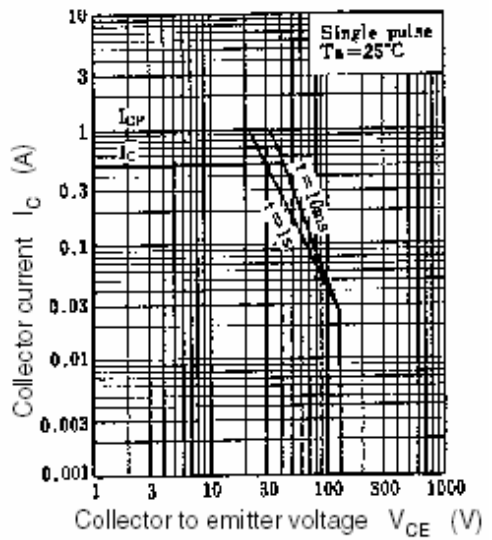


Fig.6 Safe Operating Area