Silicon NPN Power Transistors 2SC2590

DESCRIPTION

·With TO-126 package
·Complement to type 2SA1110
·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 40 W to 60 W output amplifier

APPLICATIONS

·For low-frequency power amplification

PINNING

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

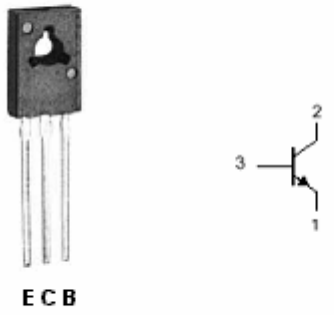

Fig.1 simplified outline (TO-126) and symbol

ABSOLUTE MAXIMUM RATINGS(T_C=25□)

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

Note) *: Without heat sink

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CHARACTERISTICS

Tj=25□ 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
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=0.3A ;I_B=30mA			1.0	V
$V_{BE(sat)}$	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	90		220	
h_{FE-2}	DC current gain	I_C=0.5A ; V_{CE}=5V	65	100		
C_{OB}	Output capacitance	I_E=0 ; V_{CB}=10V;f=1MHz			20	pF
f_T	Transition frequency	I_C=50mA ; V_{CB}=10V,f=200MHz		200		MHz

◆ **h_{FE-1} Classifications**

Q	R
90-155	130-220

PACKAGE OUTLINE

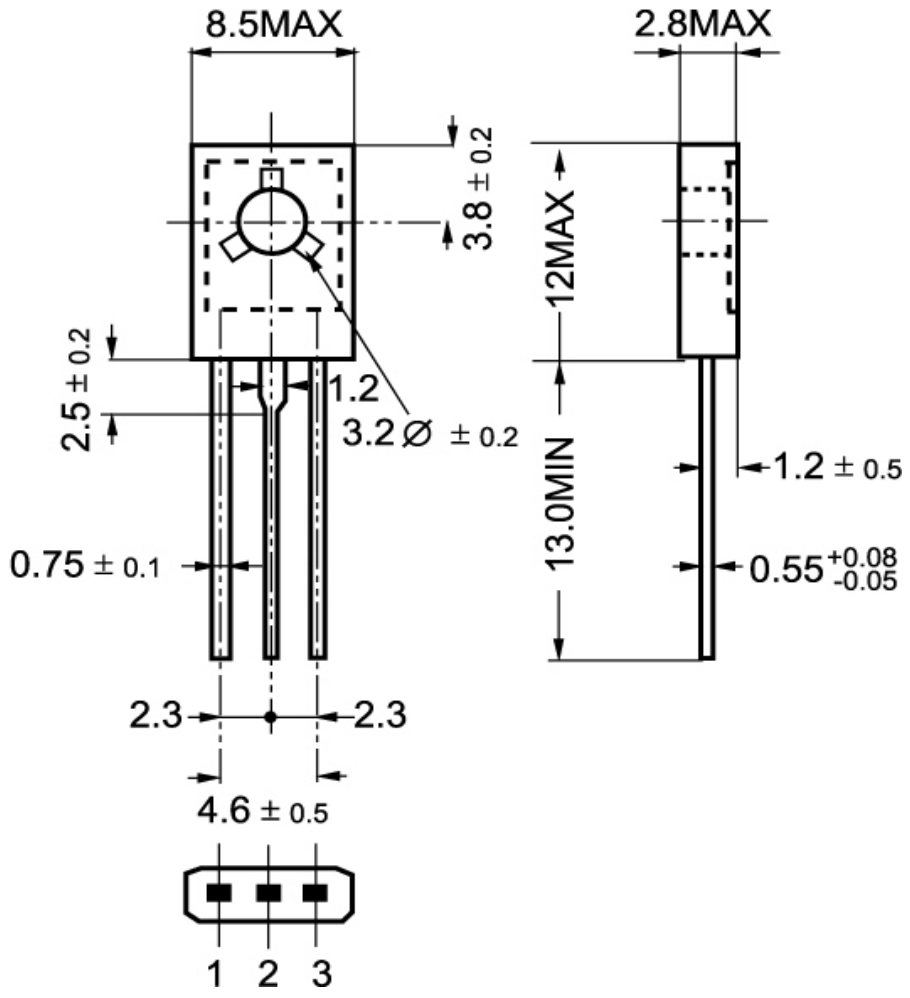

Fig.2 Outline dimensions

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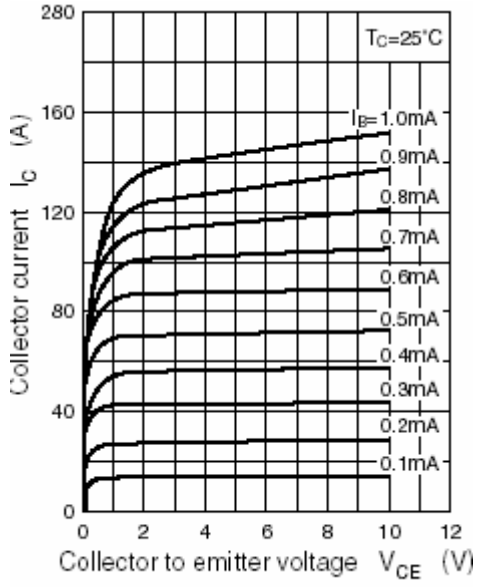

Fig.3 Static Characteristic

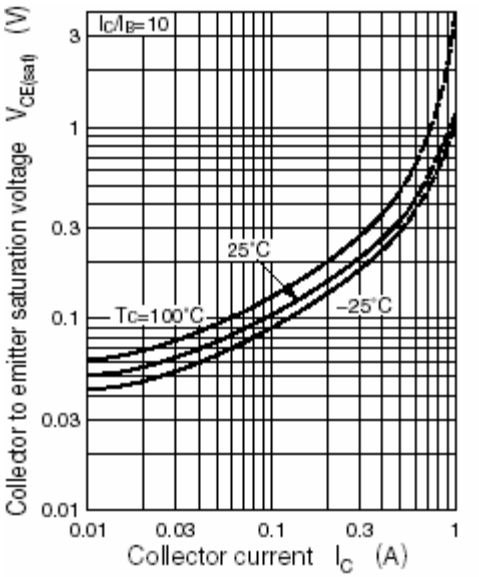

Fig.4 Collector-Emitter Saturation Voltage

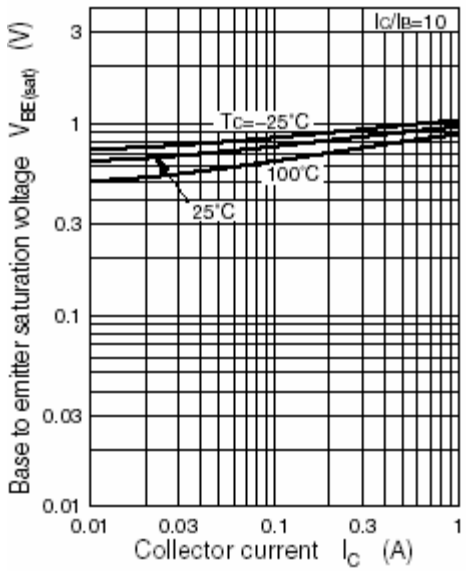

Fig.5 Base-Emitter Saturation Voltage

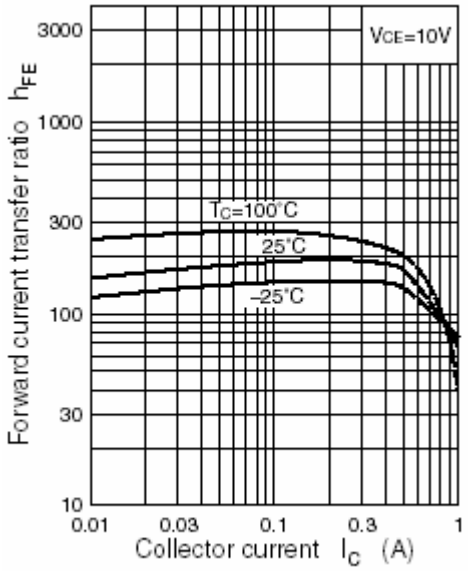

Fig.6 DC current Gain

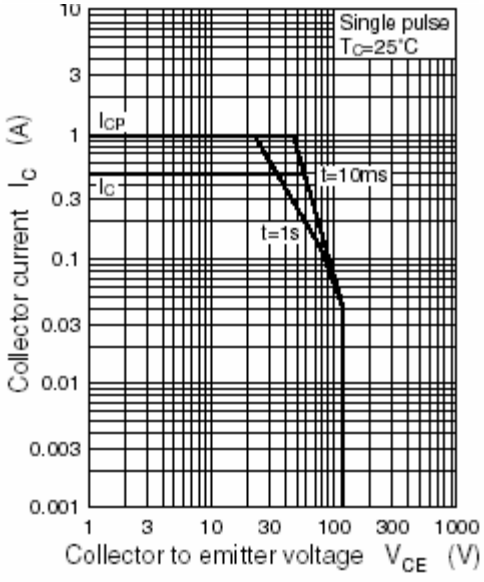

Fig.7 Safe Operating Area