

Silicon NPN Power Transistors

2SC2590

DESCRIPTION

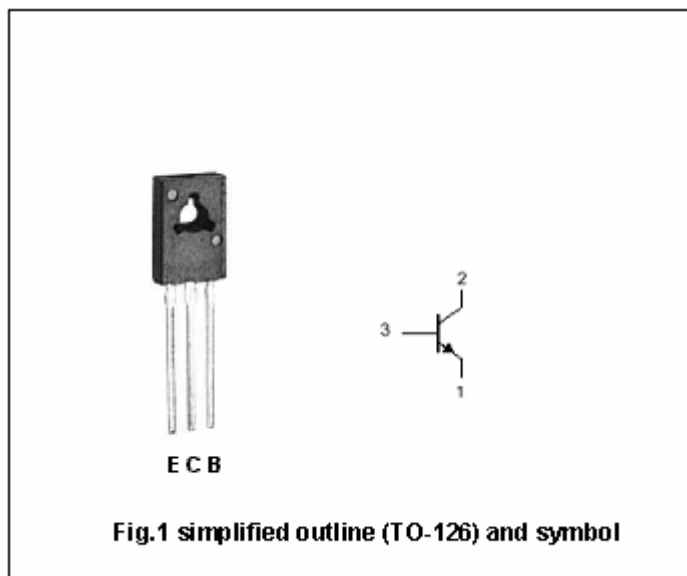
- With TO-126 package
- Complement to type 2SA1110
- Excellent current I_C characteristics of forward current transfer ratio h_{FE} vs. collector
- High transition frequency f_T
- Optimum for the driver stage of a 40 W to 60 W output amplifier

APPLICATIONS

- For low-frequency power amplification

PINNING

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

ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ\text{C}$)

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

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=100\mu A; I_B=0$	120			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\mu A; I_C=0$	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

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PACKAGE OUTLINE

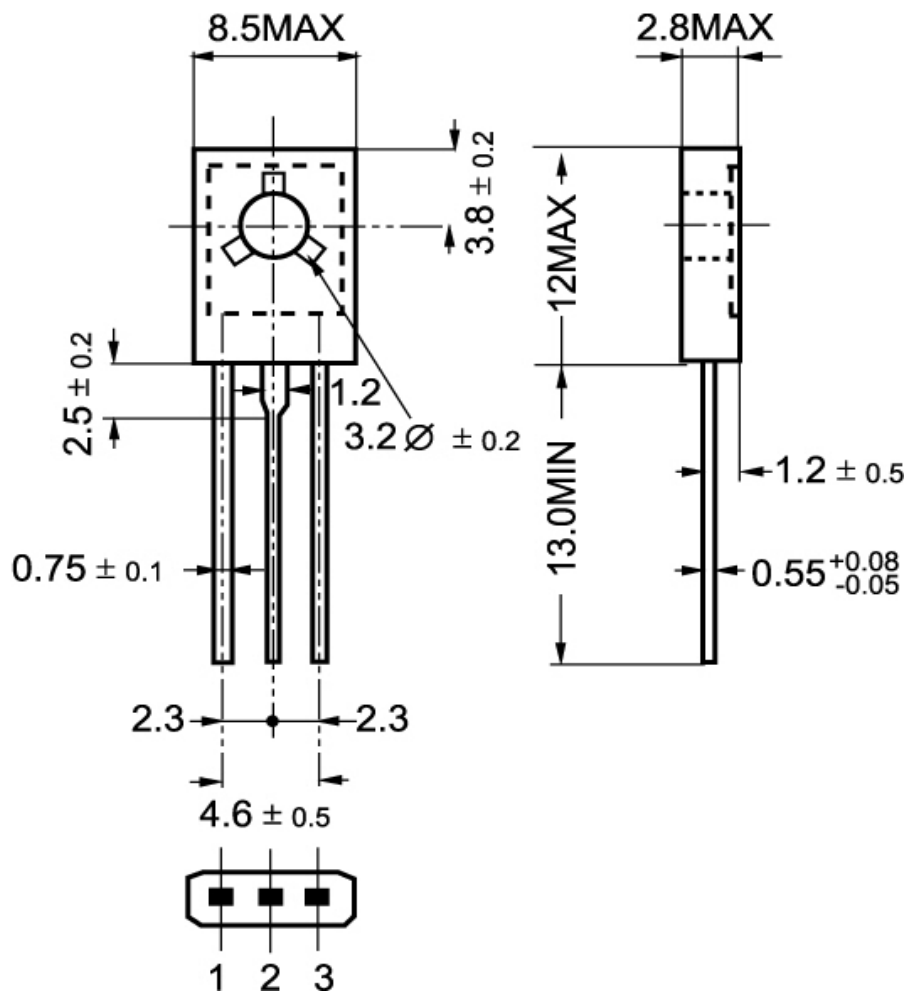


Fig.2 Outline dimensions

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