

isc Silicon NPN Power Transistor

2SC2590

DESCRIPTION

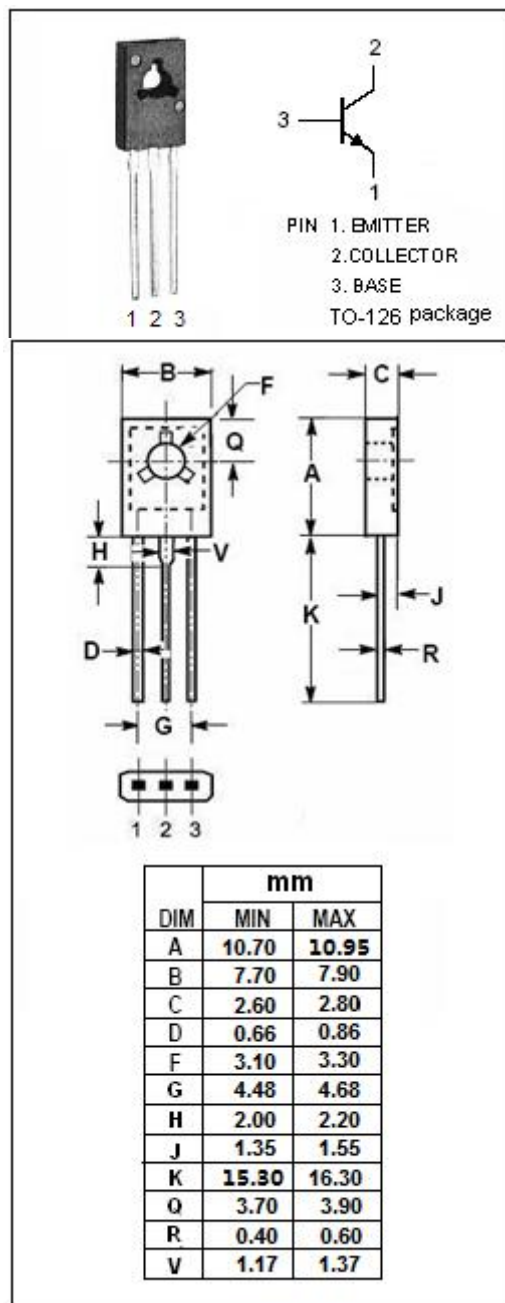
- Silicon NPN epitaxial planar type
- High transition frequency
- Complementary to 2SA1110
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For low-frequency power amplification

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CER}	Collector-Emitter Voltage $R_{BE}=150\ \Omega$	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	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 Range	-55~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C =0.3A; I _B = 0.03A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =0.3A; I _B = 0.03A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V ; I _E = 0			1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1	μ A
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			
f _T	Current-Gain—Bandwidth Product	I _C = 50mA; V _{CE} = 10V;f=200MHz		200		MHz

◆ h_{FE-1} Classifications

Q	R
90-155	130-220

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