

isc Silicon NPN RF Transistor
2SC4570
DESCRIPTION

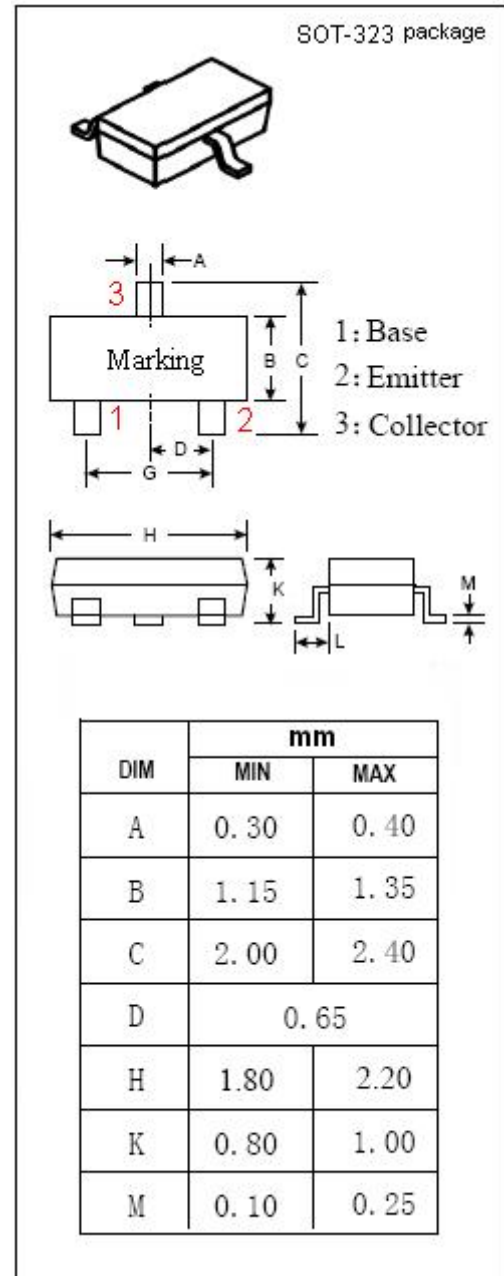
- High Current-Gain—Bandwidth Product
 $f_T = 5.5 \text{ GHz TYP. @ } V_{CE} = 5 \text{ V, } I_C = 5 \text{ mA, } f = 1.0 \text{ GHz}$
- Low C_{OB}
 $0.7 \text{ pF TYP. @ } V_{CB} = 5 \text{ V, } I_E = 0, f = 1.0 \text{ MHz}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in UHF oscillator and mixer.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3.0	V
I_C	Collector Current-Continuous	30	mA
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	0.12	W
T_J	Junction Temperature	125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~125	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I _{CBO}	Collector Cutoff Current	V _{CB} = 15V; I _E = 0			0.1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 1V; I _C = 0			0.1	μ A
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5mA ; I _B = 0.5mA			0.5	V
h _{FE}	DC Current Gain	I _C = 5mA ; V _{CE} = 5V	40		200	
f _T	Current-Gain—Bandwidth Product	I _C = 5mA ; V _{CE} = 5V		5.5		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 3V;f= 1.0MHz		0.7	0.9	pF
S _{21e} ²	Insertion Power Gain	I _C = 5mA ; V _{CE} = 5V;f= 1.0GHz	5.0			dB

◆ h_{FE} Classification

Rank	T72	T73	T74
Marking	T72	T73	T74
h _{FE}	40-80	60-120	100-200

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