isc Silicon NPN RF Transistor 2SC4570

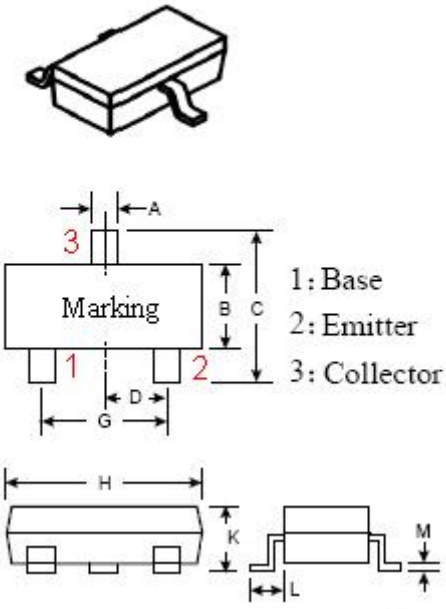
DESCRIPTION

- High Current-Gain—Bandwidth Product
  f_T= 5.5 GHz TYP. @V_{CE} = 5 V, I_C = 5 mA, f = 1.0 GHz
- Low C_{OB}
  0.7pF TYP. @V_{CB} = 5 V, I_E = 0, f = 1.0 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.

SOT-323 package



DIM	mm MIN	mm MAX
A	0.30	0.40
B	1.15	1.35
C	2.00	2.40
D	0.65	
H	1.80	2.20
K	0.80	1.00
M	0.10	0.25

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	0.12	W
T_J	Junction Temperature	125	℃
T_{stg}	Storage Temperature Range	-55~125	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{CBO}	Collector Cutoff Current	V_{CB}= 15V; I_E= 0			0.1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			0.1	μA
$V_{CE(sat)}$	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