

isc Silicon NPN RF Transistor

PRF957

DESCRIPTION

- Low Noise
NF = 1.5 dB TYP., @V_{CE} = 6V, I_C = 30 mA, f = 1 GHz
- High Gain
|S_{21e}|² = 12 dB TYP. @V_{CE} = 6V, I_C = 30 mA, f = 1.0 GHz
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

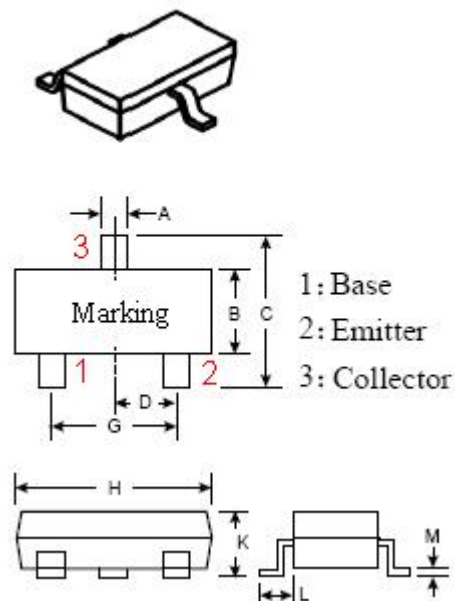
APPLICATIONS

- Designed for VHF, UHF low noise amplifier.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	20	V
V _{CEO}	Collector-Emitter Voltage	10	V
V _{EBO}	Emitter-Base Voltage	1.5	V
I _C	Collector Current-Continuous	100	mA
P _C	Collector Power Dissipation @T _C =25°C	270	
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	

SOT-323 package



DIM	mm	
	MIN	MAX
A	0.2	0.4
B	1.15	1.35
C	2.15	2.45
D	0.65	
G	1.2	1.4
H	2	2.2
K	0.9	1.1
L	0.525	
M	0.08	0.15

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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} = 10V; I _E = 0			0.1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 1V; I _C = 0			0.1	μ A
h _{FE}	DC Current Gain	I _C = 5mA ; V _{CE} = 6V	50		200	
f _T	Current-Gain—Bandwidth Product	I _C = 30mA ; V _{CE} =6V		8		GHz
C _{re}	Feed-Back Capacitance	I _E = 0 ; V _{CB} =6V;f= 1.0MHz		0.65		pF
S _{21e} ²	Insertion Power Gain	I _C = 30mA ; V _{CE} = 6V;f= 1.0GHz		12		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 6V;f= 1.0GHz		1.5		dB

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