isc Silicon NPN RF Transistor PRF957

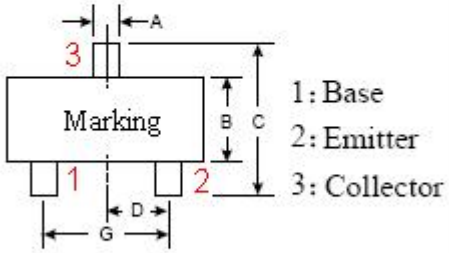
DESCRIPTION

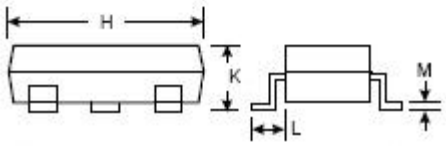
- Low Noise
  NF = 1.5 dB TYP., @V_{CE} = 6V, I_C = 30 mA, f = 1 GHz
- High Gain
  $|S_{21e}|^2$ = 12 dB TYP. @V_{CE} = 6V, I_C = 30 mA, f = 1.0 GHz
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for VHF, UHF low noise amplifier.

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	270	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	

isc Silicon NPN RF Transistor PRF957

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	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			0.1	μA
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