isc Silicon NPN RF Transistor 2SC3356

DESCRIPTION

- Low Noise and High Gain
  NF = 1.1 dB TYP., G_a = 11 dB TYP.
  @V_{CE} = 10 V, I_C = 7 mA, f = 1.0 GHz
- High Power Gain
  MAG = 13 dB TYP.
  @V_{CE} = 10 V, I_C = 20 mA, f = 1.0 GHz
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

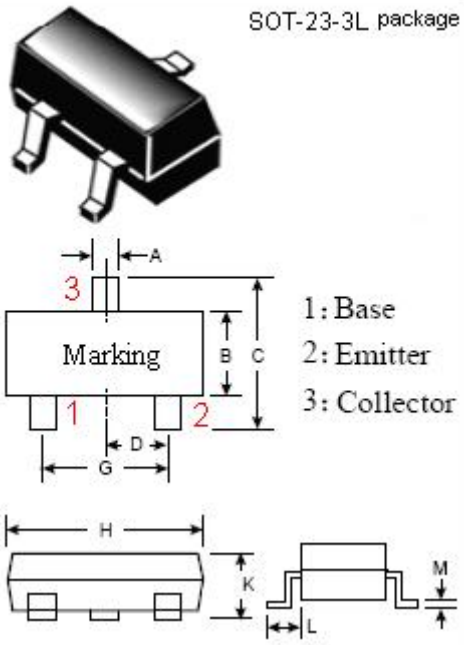
APPLICATIONS

- Designed for low noise amplifier at VHF, UHF and CATV band.

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	0.1	A
P_C	Collector Power Dissipation @T_C=25℃	0.2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

SOT-23-3L package



DIM	mm	
	MIN	MAX
A	0.30	0.40
B	1.50	1.70
C	2.65	2.95
D	0.95	
G	1.80	2.00
H	2.82	3.02
K	1.05	1.25
L	0.70	
M	0.10	0.20

isc Silicon NPN RF Transistor 2SC3356

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			1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			1.0	μA
h_{FE}	DC Current Gain	I_C= 20mA ; V_{CE}= 10V	50		300	
f_T	Current-Gain—Bandwidth Product	I_C= 20mA ; V_{CE}= 10V		7		GHz
C_{re}	Feed-Back Capacitance	I_E= 0 ; V_{CB}= 10V;f= 1.0MHz		0.55	1.0	pF
$\|S_{21e}\|^2$	Insertion Power Gain	I_C= 20mA ; V_{CE}= 10V;f= 1.0GHz		11.5		dB
NF	Noise Figure	I_C= 7mA ; V_{CE}= 10V;f= 1.0GHz		1.1	2.0	dB

◆ **h_{FE} Classification**

Class	Q	R	S
Marking	R23	R24	R25
h_{FE}	50-100	80-160	125-250