

INCHANGE Semiconductor

isc RF Product Specification

isc Silicon NPN RF Transistor

2SC2351

DESCRIPTION

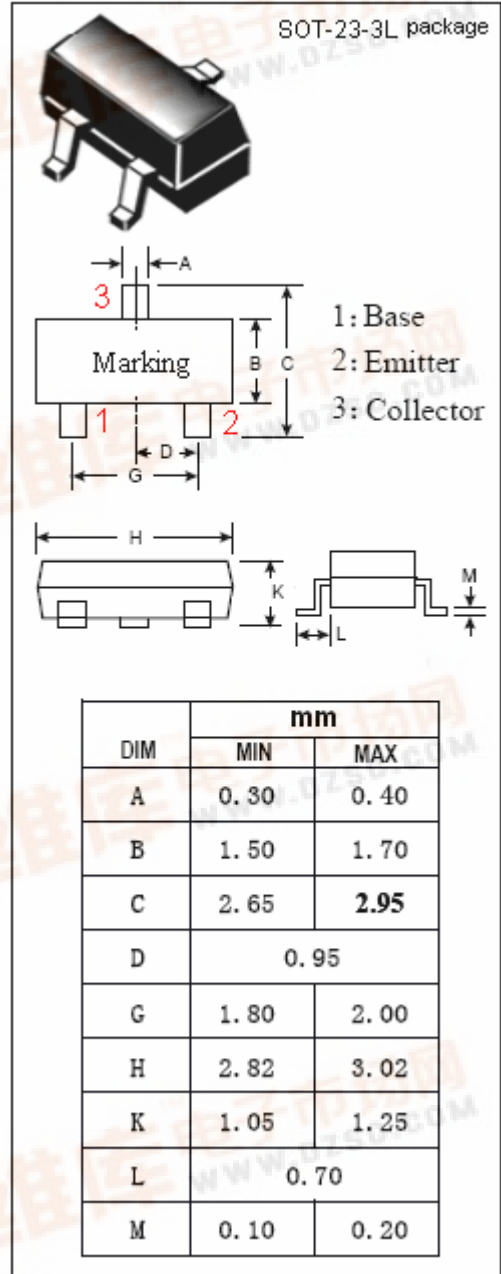
- Low Noise
NF = 1.5 dB TYP. ; @ f = 1 GHz
- High Maximum Available Gain
MAG = 14 dB TYP. ; @ f = 1 GHz

APPLICATIONS

- Designed for use as UHF oscillators and a UHF mixer in a tuner of a TV receiver.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	25	V
V _{CEO}	Collector-Emitter Voltage	12	V
V _{EBO}	Emitter-Base Voltage	3	V
I _c	Collector Current-Continuous	70	mA
P _c	Collector Power Dissipation @T _c =25°C	0.25	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C



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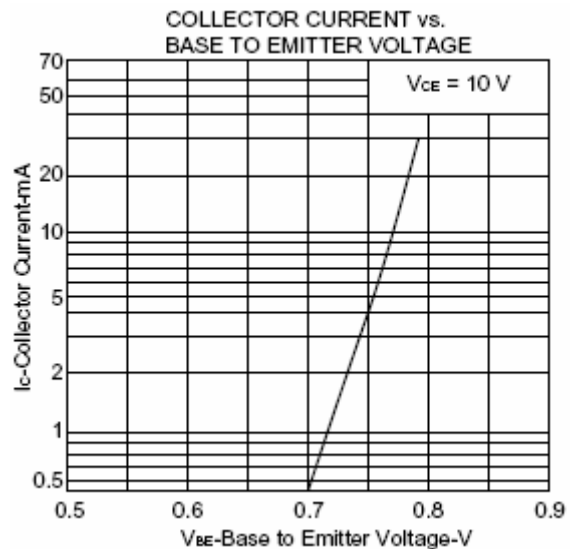
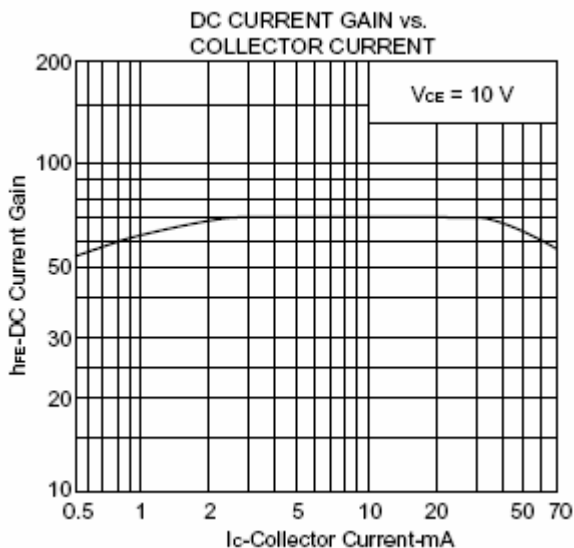
ELECTRICAL CHARACTERISTICS

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} = 2.0V; I _C = 0			0.1	μ A
h _{FE}	DC Current Gain	I _C = 20mA ; V _{CE} = 10V	40		200	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA;V _{CE} = 10V		4.5		GHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f= 1MHz		0.75	1.0	pF
S _{21e} ²	Insertion Power Gain	I _C = 20mA ; V _{CE} = 10V;f= 1.0GHz	9	11		dB
NF	Noise Figure	I _C = 5mA ; V _{CE} = 10V;f= 1.0GHz		1.5	3.0	dB
MAG	Maximum Available Gain	I _C = 20mA ; V _{CE} = 10V;f= 1.0GHz		14		dB

◆ h_{FE} Classification

Class	E/P	F/Q
Marking	R2	R3
h _{FE}	40-120	100-200



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