

High-Frequency Amplifier Transistor

DESCRIPTION

The 2SC3356 is an NPN silicon epitaxial transistor designed for low noise amplifier at VHF, UHF and CATV band.

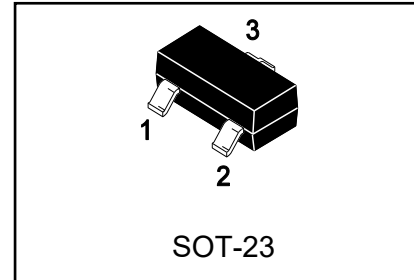
It has dynamic range and good current characteristic.

S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

ORDERING INFORMATION

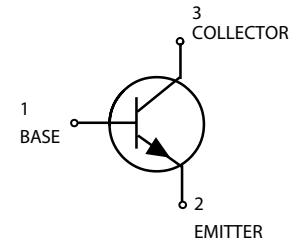
Device	Marking	Shipping
2SC3356 S-2SC3356	R24	3000/Tape & Reel

2SC3356
S-2SC3356



FEATURES

- We declare that the material of product compliance with RoHS requirements.
- Low Noise and High Gain
 $NF = 1.1 \text{ dB TYP.}, G_a = 11 \text{ dB TYP. @ } V_{CE} = 10 \text{ V}, I_c = 7 \text{ mA}, f = 1.0 \text{ GHz}$
- High Power Gain
 $MAG = 13 \text{ dB TYP. @ } V_{CE} = 10 \text{ V}, I_c = 20 \text{ mA}, f = 1.0 \text{ GHz}$



ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C)

Collector to Base Voltage	V _{CB0}	20	V
Collector to Emitter Voltage	V _{CEO}	12	V
Emitter to Base Voltage	V _{EB0}	3.0	V
Collector Current	I _c	100	mA
Total Power Dissipation	P _T	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-65 to +150	°C

Driver Marking

2SC3356=R24

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

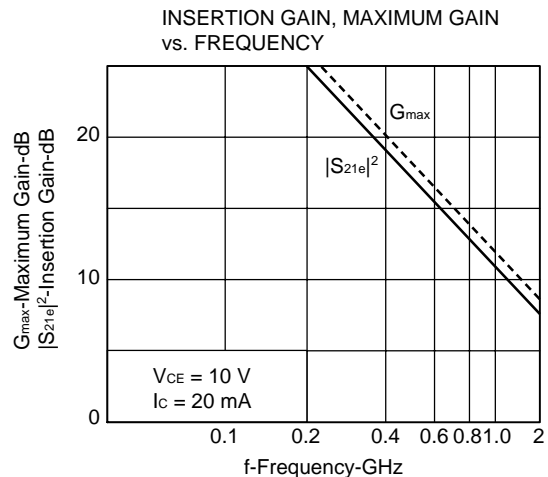
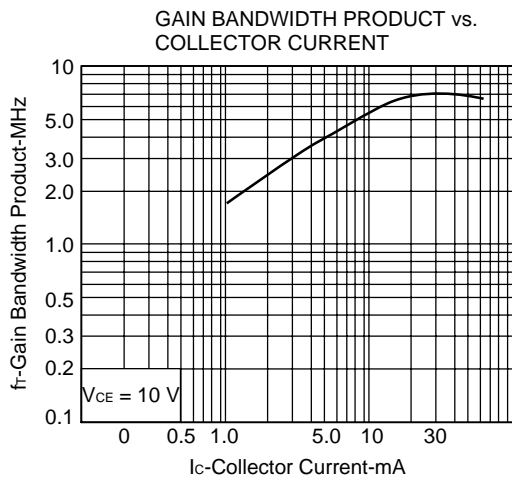
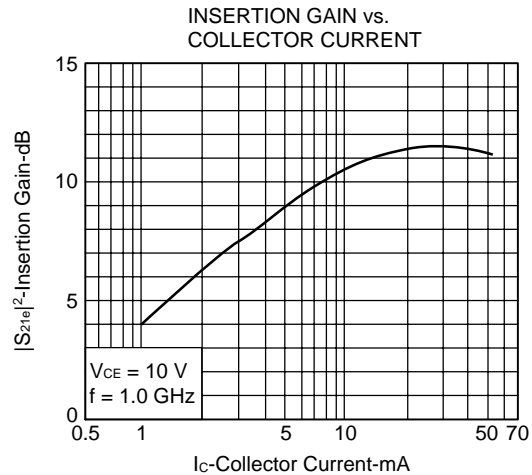
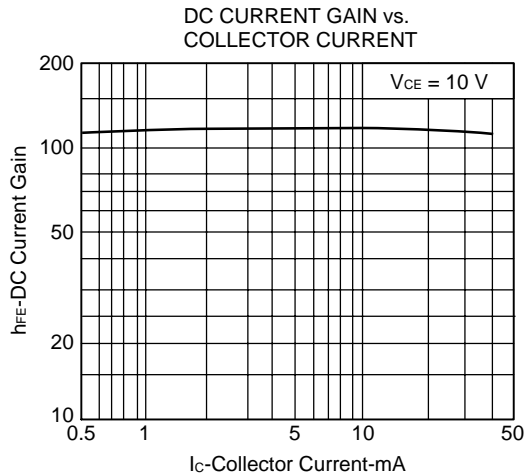
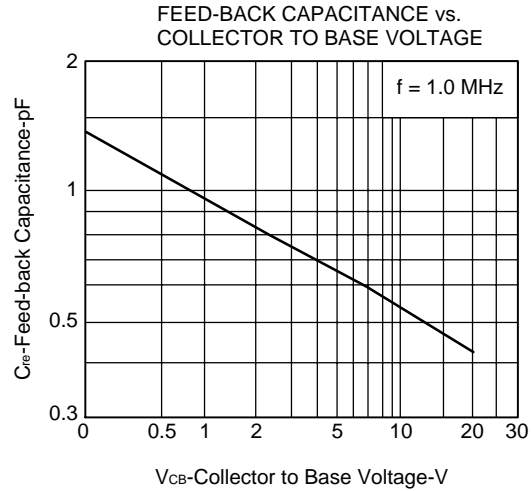
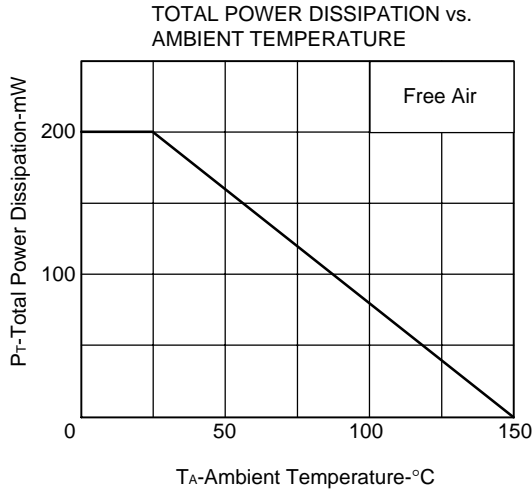
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I _{CB0}			1.0	μA	V _{CB} = 10 V, I _E = 0
Emitter Cutoff Current	I _{EB0}			1.0	μA	V _{EB} = 1.0 V, I _C = 0
DC Current Gain	h _{FE}	82	170	270		V _{CE} = 3 V, I _C = 10 mA
Gain Bandwidth Product	f _T		7		GHz	V _{CE} = 10 V, I _C = 20 mA
Feed-Back Capacitance	C _{re} **		0.55	1.0	pF	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz
Insertion Power Gain	S _{21e} ²		11.5		dB	V _{CE} = 10 V, I _C = 20 mA, f = 1.0 GHz
Noise Figure	NF		1.1	2.0	dB	V _{CE} = 10 V, I _C = 7 mA, f = 1.0 GHz

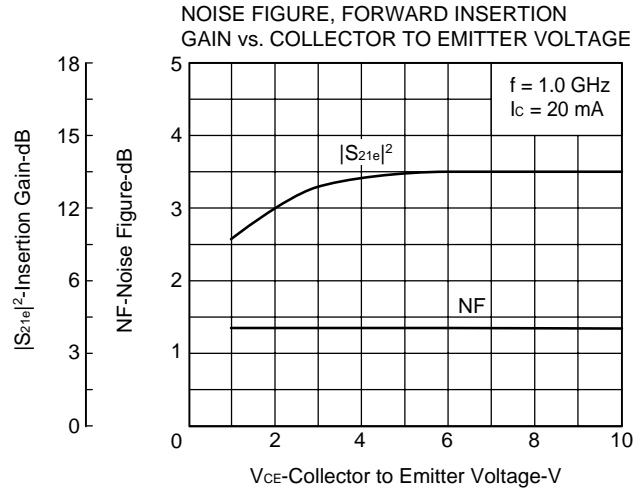
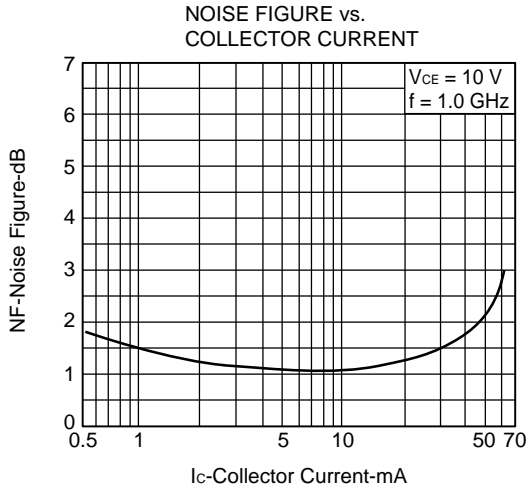
* Pulse Measurement PW ≤ 350 μs, Duty Cycle ≤ 2 %

* The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

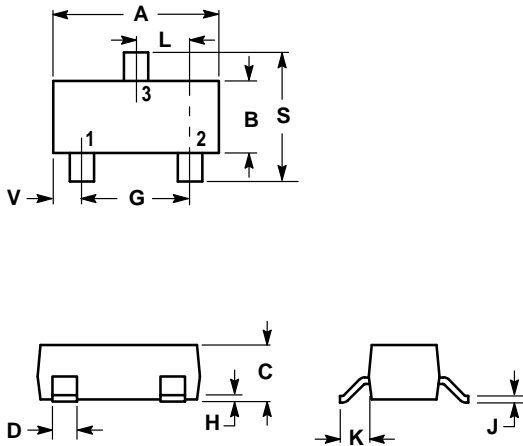


TYPICAL CHARACTERISTICS (T_A = 25 °C)





SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE
 2. EMITTER
 3. COLLECTOR

