GST2SC3356

High-Frequency Amplifier Transistor NPN Silicon

Product Description

This device is designed as a general purpose amplifier and switch.

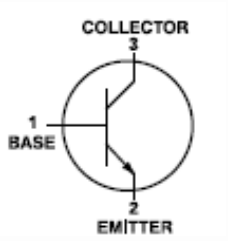
Features

- Low noise amplifier at VHF, UHF and CATV band
- Low Noise and High Gain
- High Power Gain
- Lead(Pb)-Free

Packages & Pin Assignments

GST2SC3356F(SOT-23)

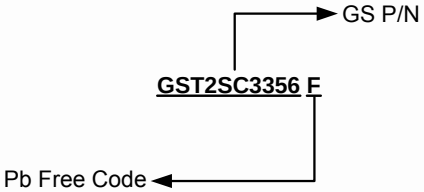
Pin	Description
1	Base
2	Emitter
3	Collector



Marking Information

P/N	Package	Part Marking
GST2SC3356F	SOT-23	2SC3356

Ordering Information



Part Number	Package	Quantity
GST2SC3356F	SOT-23	3000 PCS

Absolute Maximum Ratings

T_A=25°C

Symbol	Conditions	Value	Unit
V_{CEO}	Collector-Emitter Voltage	12	V
V_{CBO}	Collector-Base Voltage	20	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	0.1	A
P_D	Collector Power Dissipation	0.25	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

Electrical Characteristics

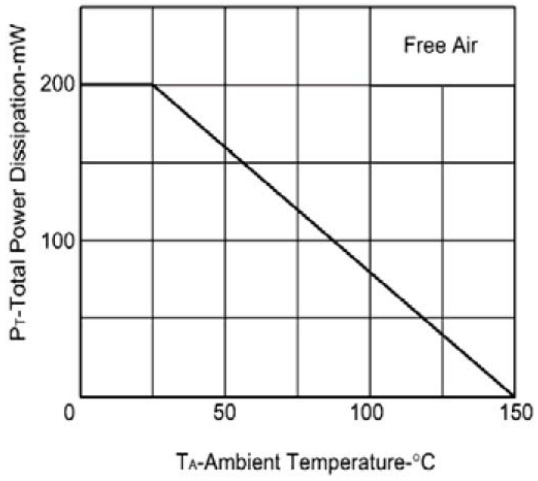
(T_A=25°C unless otherwise noted)

Symbol	Conditions	Min	Typ	Max	Unit
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=1mA, I_B=0mA)	12	-	-	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=10uA, I_E=0mA)	20		-	V
$V_{CE(sat)}$	Collector-Emitter Breakdown Voltage (I_C=50mA, I_B=5mA)	-	-	200	mV
I_{CBO}	Collector Cut-off Current (V_{CB}=10V, I_E=0mA)	-	-	1	uA
I_{EBO}	Emitter Cut-off Current (V_{EB}=1V,I_C=0mA)	-	-	1	uA
h_{FE}	DC Current Gain (V_{CE}=3V, I_C=10mA)	82	-	270	-
f_T	Transition Frequency (V_{CE}=10V,I_C=20mA)	-	7	-	GHz
N_F	Noise Figure (V_{CE}=10V,I_C=7mA,f=1GHz)	-	-	2	dB

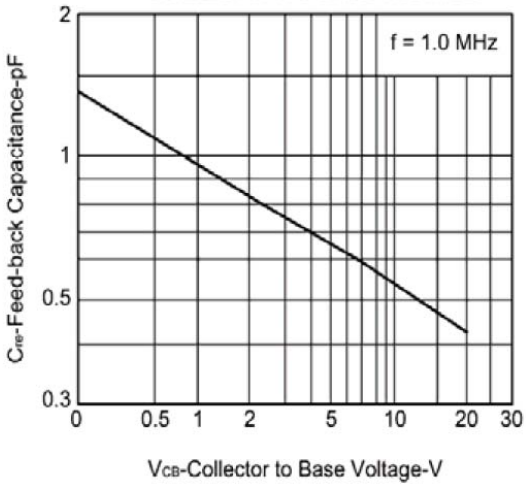
Note 1: Pulse Test: Pulse Width ≤ 350 us, Duty Cycle ≤ 2.0%

Typical Performance Characteristics

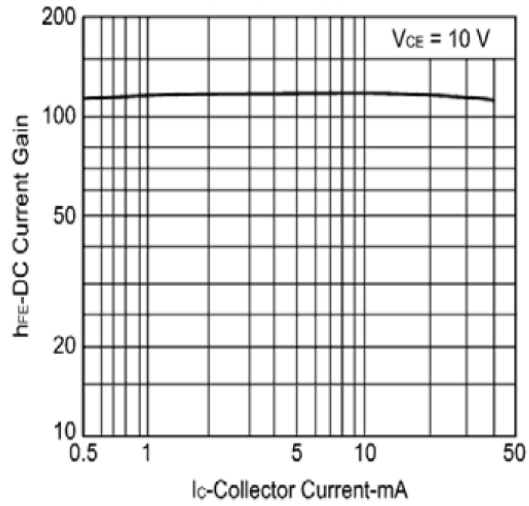
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



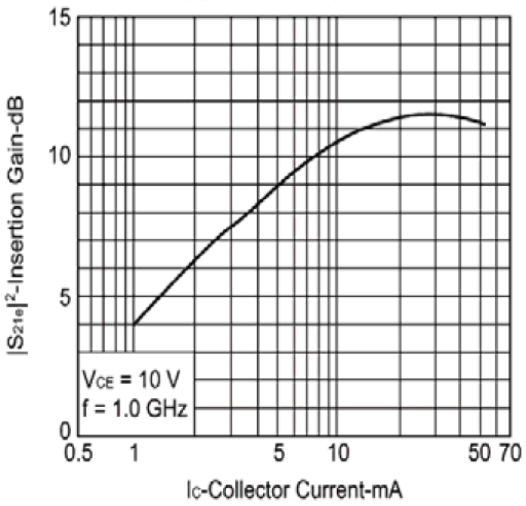
FEED-BACK CAPACITANCE vs. COLLECTOR TO BASE VOLTAGE



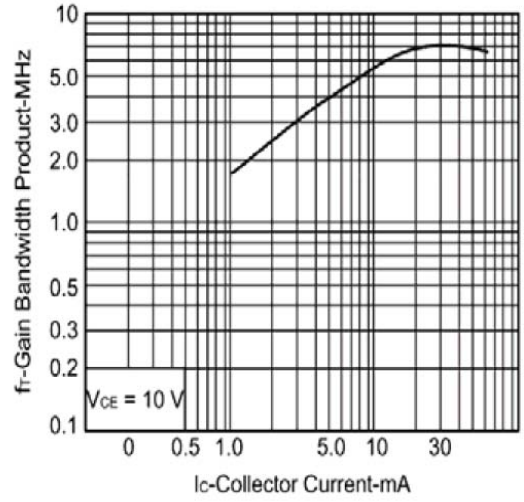
DC CURRENT GAIN vs. COLLECTOR CURRENT



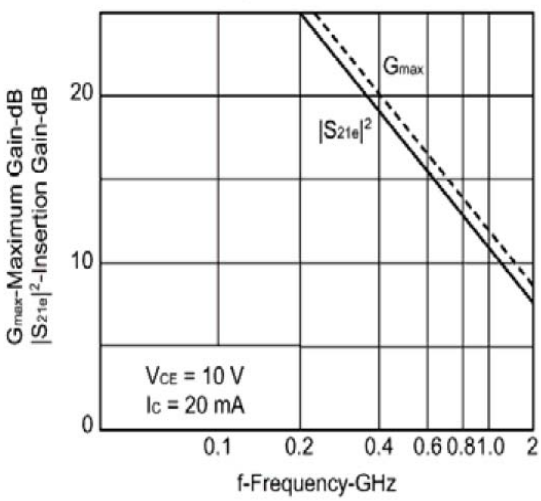
INSERTION GAIN vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT

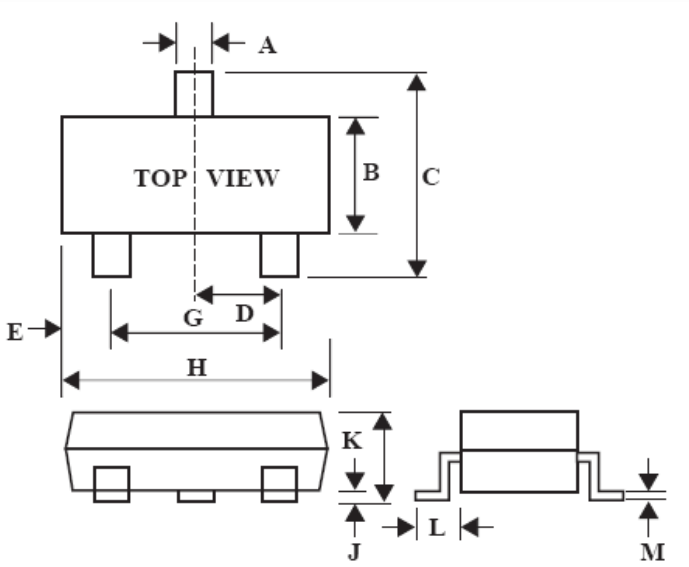


INSERTION GAIN, MAXIMUM GAIN vs. FREQUENCY



Package Dimension

SOT-23



Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.35	0.51	0.014	0.020
B	1.19	1.40	0.047	0.055
C	2.10	3.00	0.083	0.118
D	0.85	1.05	0.033	0.041
E	0.46	1.00	0.018	0.039
G	1.70	2.10	0.067	0.083
H	2.70	3.10	0.106	0.122
J	0.01	0.13	0.000	0.005
K	0.89	1.10	0.035	0.043
L	0.30	0.61	0.011	0.024
M	0.076	0.25	0.002	0.010

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