H2SC3357

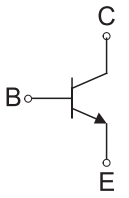
NPN Plastic-Encapsulate Transistors

Features

- Collector-Emitter Voltage: V_{CEO} = 12V
- Collector Power Dissipation: Pc = 1.2W
- Collector Current -Continuous: Ic = 100mA

1. BASE
2. COLLECTOR
3. EMITTER

SOT-89



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
H2SC3357	SOT-89	RF/RE	1000

Maxmim Ratings (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current -Continuous	100	mA
P_C	Collector Power Dissipation	1.2	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

Electrcal Charcteristics (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA , I_E=0	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C= 1mA, I_B=0	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=20V, I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=1V, I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=10V, I_C=20mA	50		250	
Insertion Power Gain	$\|S_{21e}\|^2$	V_{CE}=10V, I_C=20mA,f=1GHz		9	0.4	
Noise Figure	NF	V_{CE}=10V, I_C=7mA,f=1GHz	6.5	1.1		dB
		V_{CB}=10V,I_C=40mA,f=1GHz		1.8	3	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50m A, I_B=5mA			0.4	V
Base -emitter saturation voltage	$V_{BE(sat)}$	I_C=50m A, I_B=5mA			1.2	V
Transition frequency	f_T	V_{CE}=10V, I_C=20mA		6.5		GHz
Reverse Transfer Capacitance	C_{re}	V_{CB}=10V,I_E=0,f=1MHz			1	pF

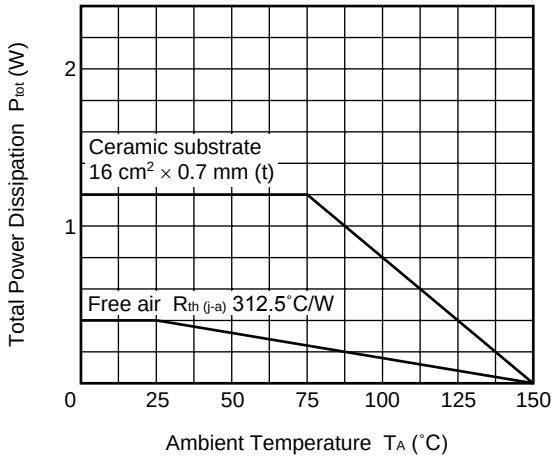
*pulse test

Classifiction Of hFE

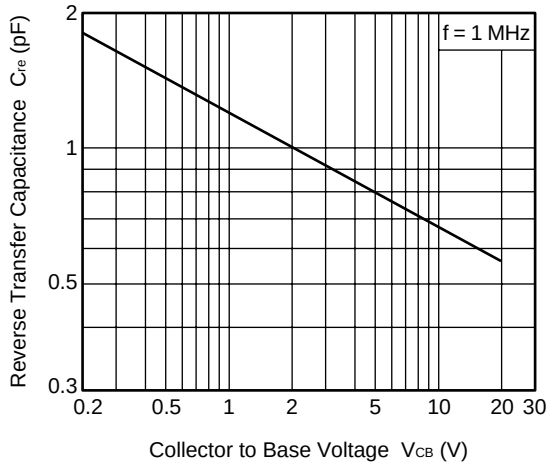
Rank	H2SC3357 RF	H2SC3357 RE
Range	82 -160	120 - 270
Marking	RF	RE

Typical Characteristics

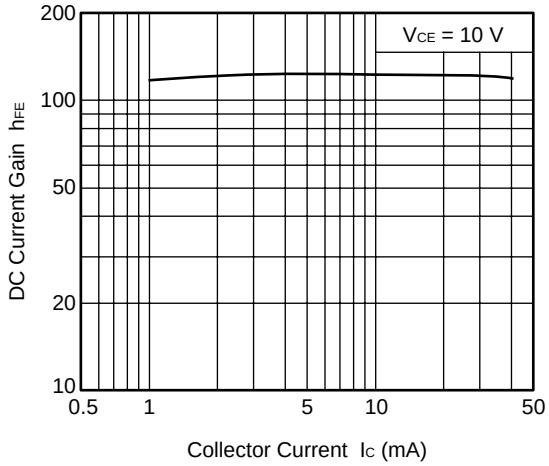
Total Power Dissipation
Vs. Ambient Temperature



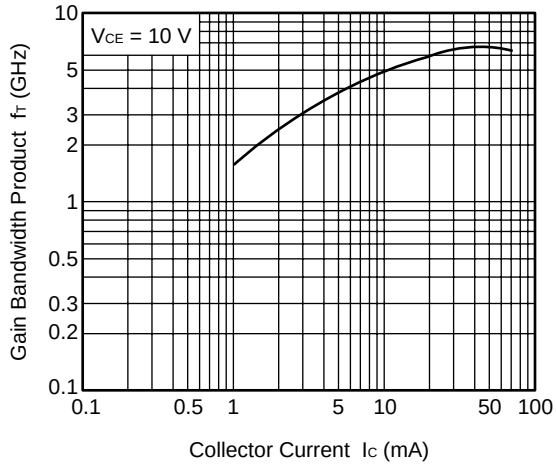
Reverse Transfer Capacitance
Vs. Collector To Base Voltage



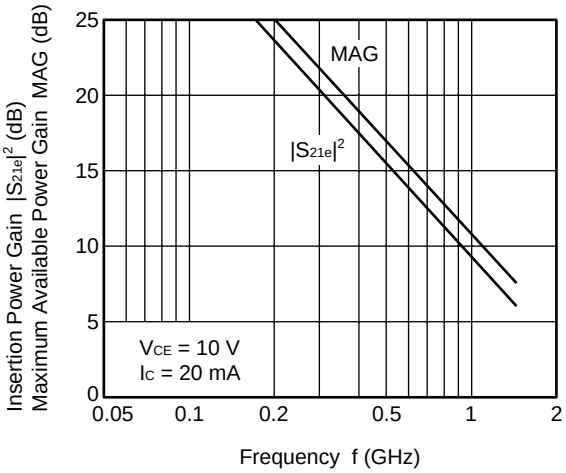
DC Current Gain Vs
Collector Current



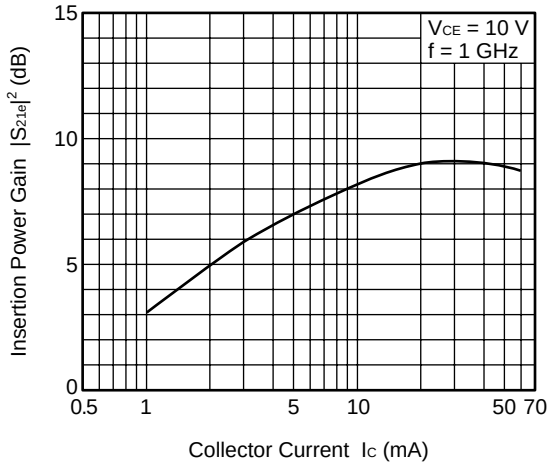
Gain Bandwidth Prouct
Vs. Collector CUrrent



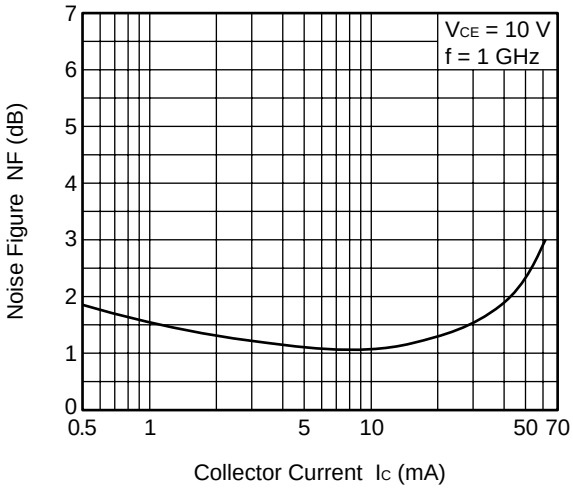
Insertion Power Gain,MAG
Vs. Frequency



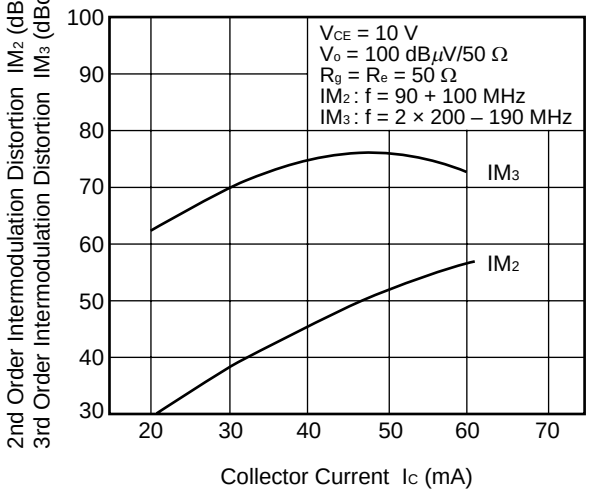
Insertion Power Gain
Vs. Collector Current



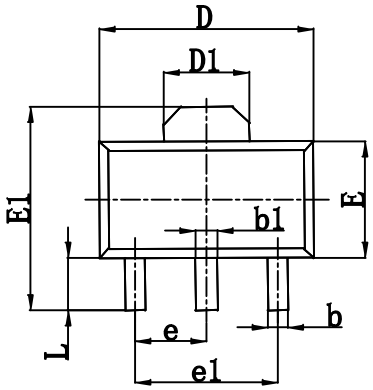
NOISE FIGURE vs.
COLLECTOR CURRENT

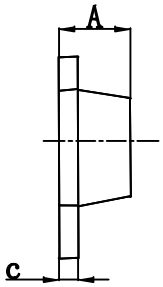


IM2, IM3 vs. COLLECTOR CURRENT



SOT-89 Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

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