



## Features

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

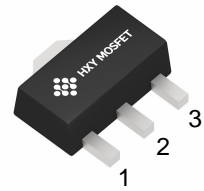
## Package Marking and Ordering Information

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

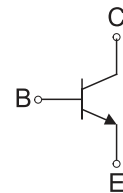
1. BASE

2. COLLECTOR

3. EMITTER



SOT-89



## Maximum 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	°C

## Electrical Characteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=1mA, I_B=0$	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$			1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=1V, I_C=0$			1	$\mu A$
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	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$			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

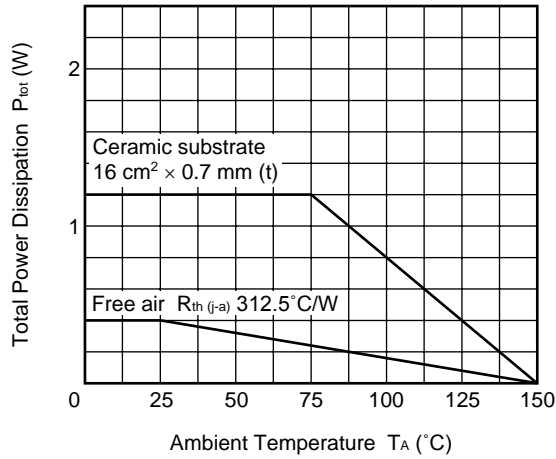
## Classification Of $h_{FE}$

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

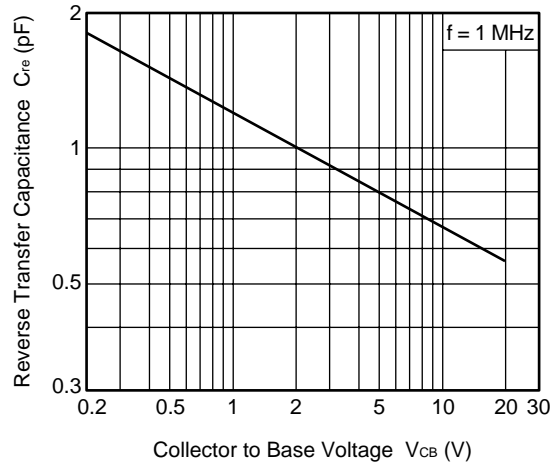


## Typical Characteristics

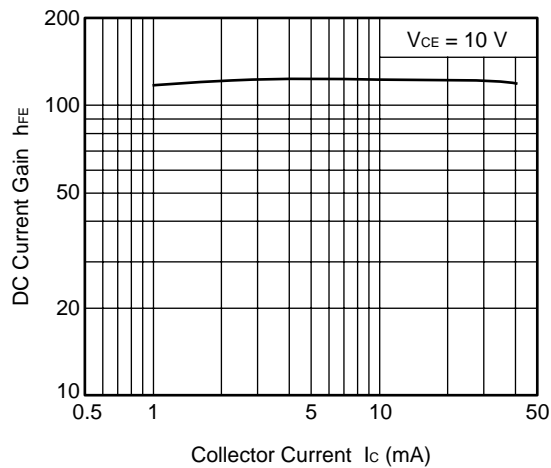
Total Power Dissipation  
Vs. Ambient Temperature



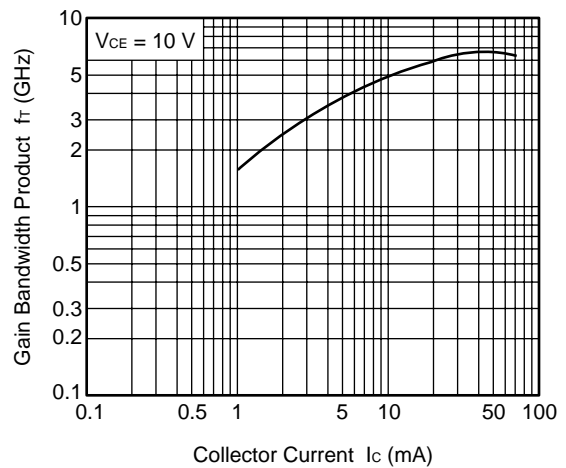
Reverse Transfer Capacitance  
Vs. Collector To Base Voltage



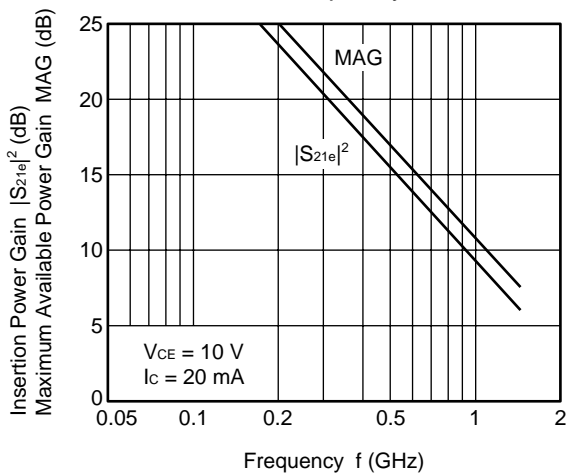
DC Current Gain Vs  
Collector Current



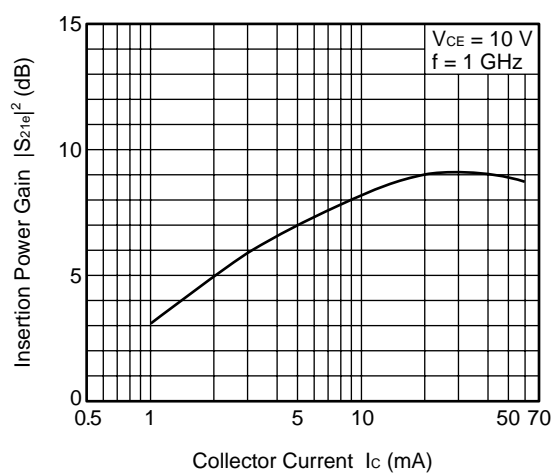
Gain Bandwidth Prouct  
Vs. Collector CUIrent



Insertion Power Gain,MAG  
Vs. Frequency

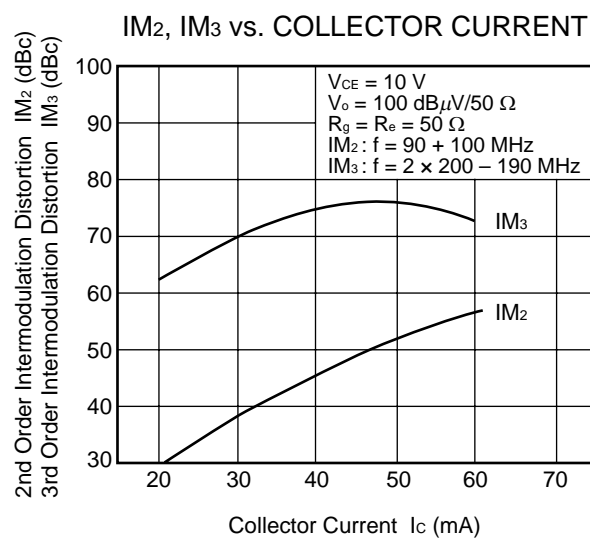
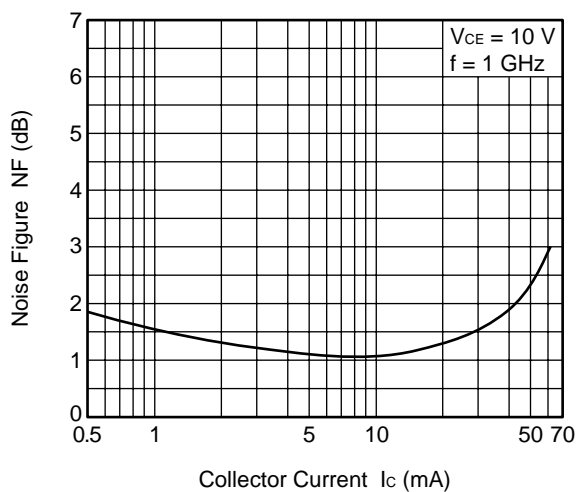


Insertion Power Gain  
Vs. Collector Current

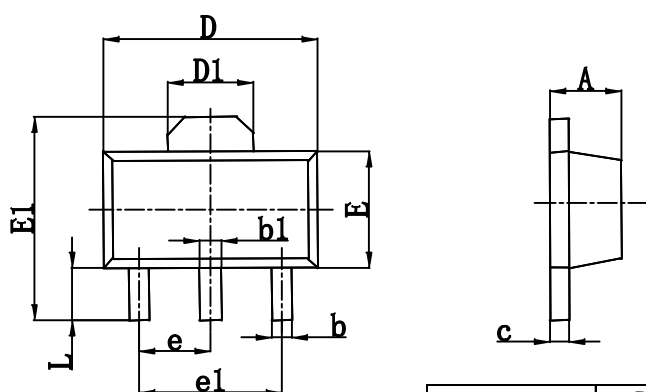




NOISE FIGURE vs.  
COLLECTOR CURRENT



## 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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