



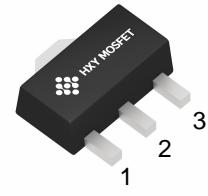
Features

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

Package Marking and Ordering Information

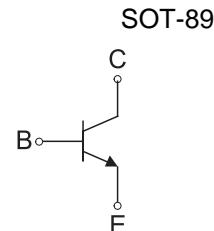
Product ID	Pack	Marking	Qty(PCS)
2SC3357	SOT-89	RF/RE	1000

1. BASE



2. COLLECTOR

3. Emitter



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	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	$V_{CE(sat)}$	$I_c=50mA, I_B=5mA$			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

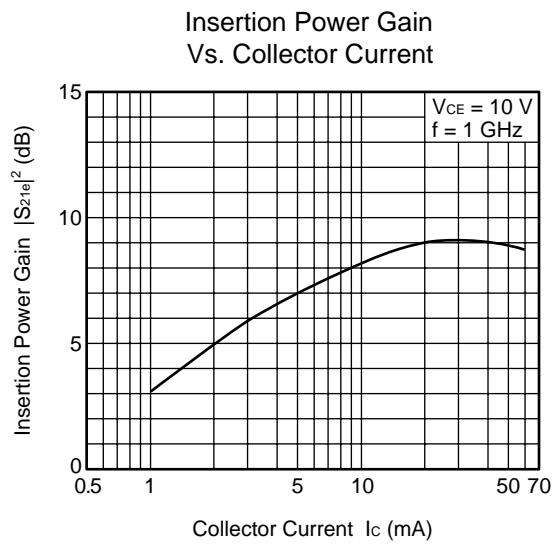
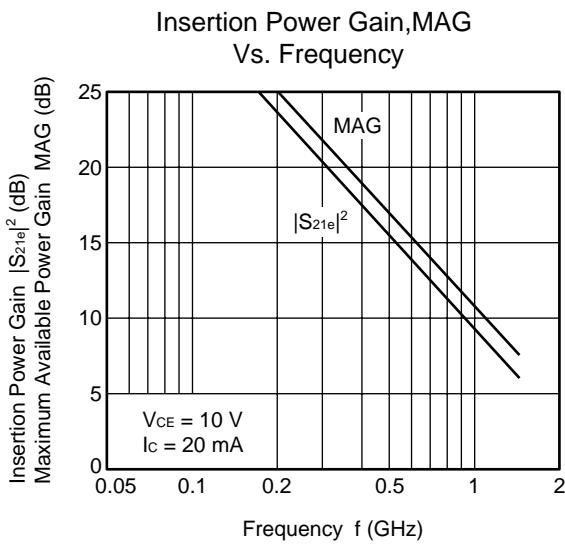
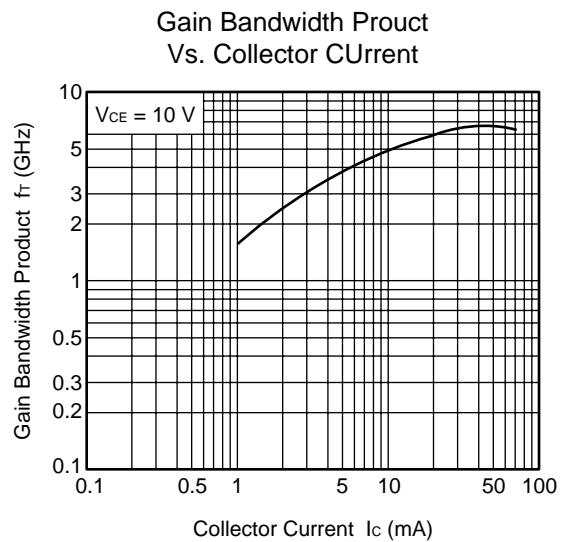
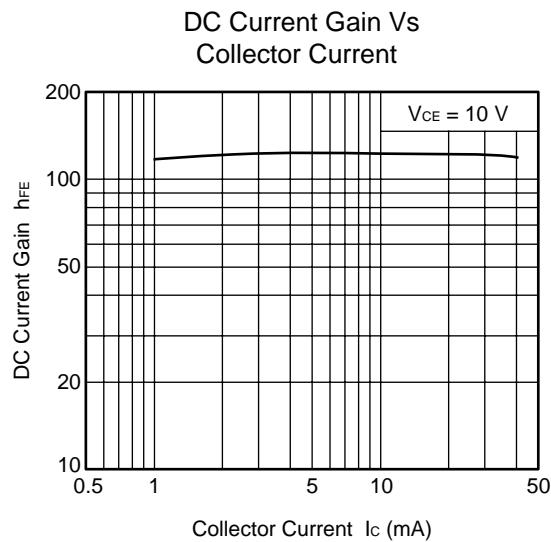
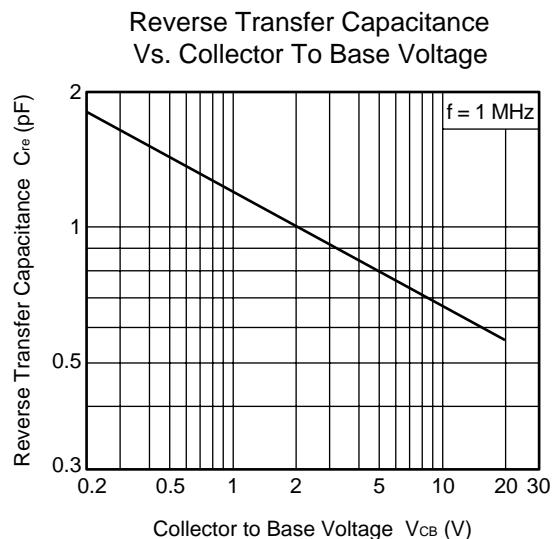
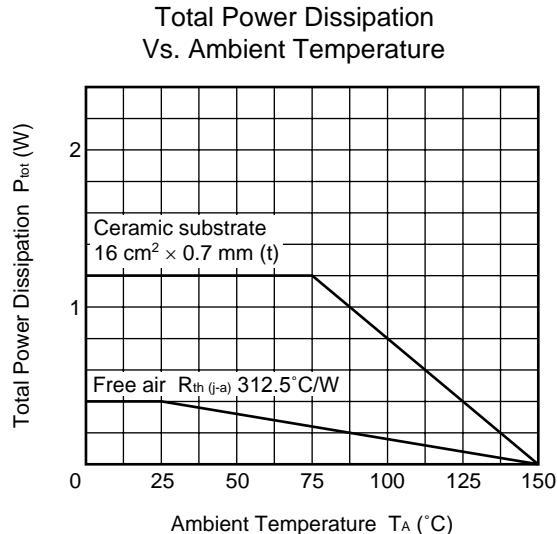
*pulse test

Classification Of hFE

Rank	2SC3357 RF	2SC3357 RE
Range	82 -160	120 - 270
Marking	RF	RE

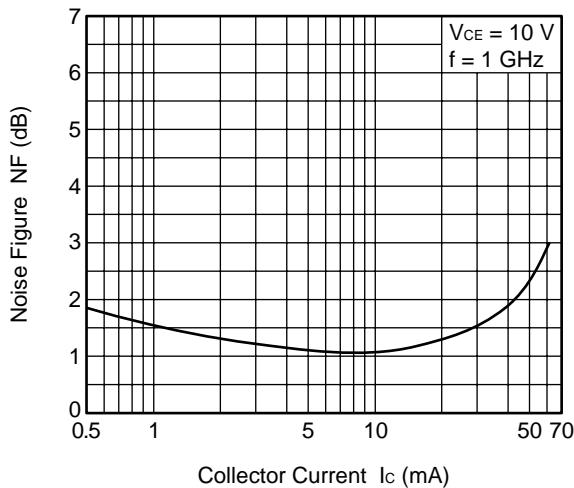


Typical Characteristics

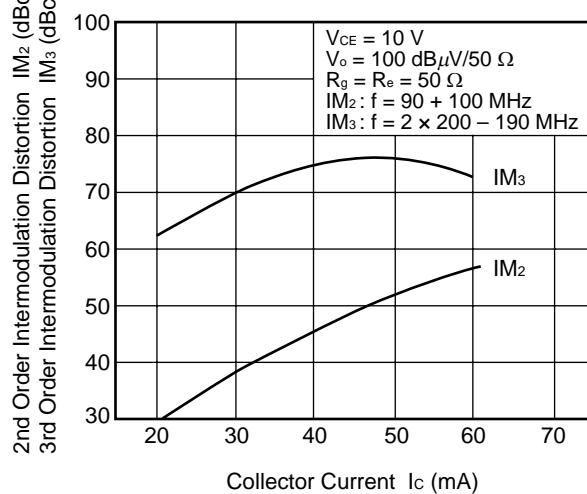




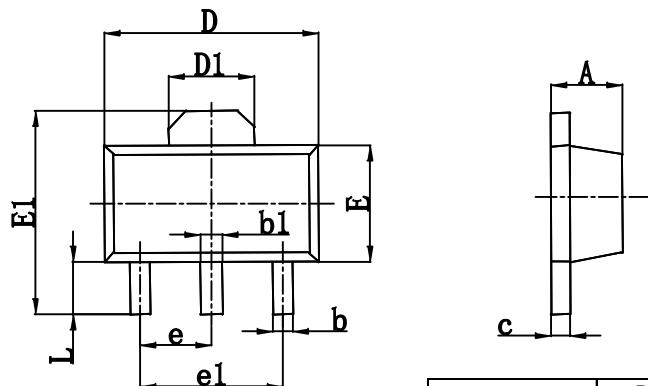
NOISE FIGURE vs.
COLLECTOR CURRENT



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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