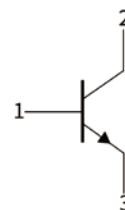


Features

- Collector-Emitter Voltage: $V_{CE0} = 12V$
- Collector Power Dissipation: $P_c = 1.2W$
- Collector Current -Continuous: $I_c = 100mA$



SOT-89-3L



Equivalent Circuit

Absolute Maximum Ratings($T_A=25^{\circ}C$)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	20	V
V_{CE0}	Collector-Emitter Voltage	12	V
V_{EB0}	Emitter-Base Voltage	3	V
I_c	Collector Current	0.1	A
P_c	Collector Power Dissipation	1.2	W
T_j, T_{stg}	Operation Junction And Storage Temperature Range	-55 ~ +150	$^{\circ}C$

Electrical Characteristics ($T_A=25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_c=100\mu A, I_E=0$	20			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_c=1mA, I_B=0$	12			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=100\mu A, I_C=0$	5			V
I_{CBO}	Collector cut-off current	$V_{CB}=20V, I_E=0$			1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=1V, I_C=0$			1	μA
h_{FE}	DC current gain	$V_{CE}=10V, I_c=20mA$	100		250	
$ S_{21e} ^2$	Insertion Power Gain	$V_{CE}=10V, I_c=20mA, f=1GHz$		9	0.4	
NF	Noise Figure	$V_{CE}=10V, I_c=7mA, f=1GHz$	6.5	1.1		dB
		$V_{CE}=10V, I_c=40mA, f=1GHz$		1.8	3	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_c=50mA, I_B=5mA$			0.4	V
$V_{BE(sat)}$	Base -emitter saturation voltage	$I_c=50mA, I_B=5mA$			0.1	V
f_T	Transition frequency	$V_{CE}=10V, I_c=20mA$		6.5		GHz
C_{re}	Reverse Transfer Capacitance	$V_{CB}=10V, I_E=0, f=1MHz$			1	pF

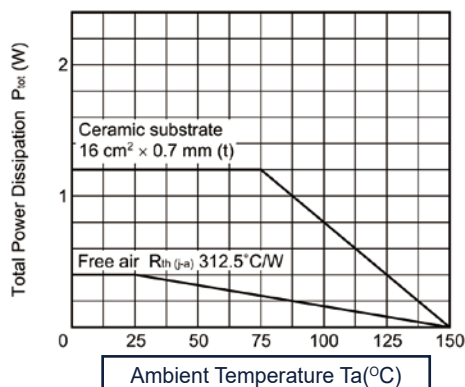
Ordering information

Product ID	Pack	Naming rule	Marking	$h_{FE}(1)$	Qty(PCS)
2SC3357	SOT-89-3L	2SC3357 产品名称 product name	RF	100-160	1000
			RE	160-250	

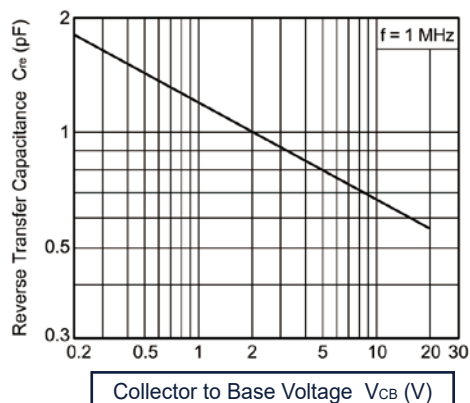


Typical Characteristics

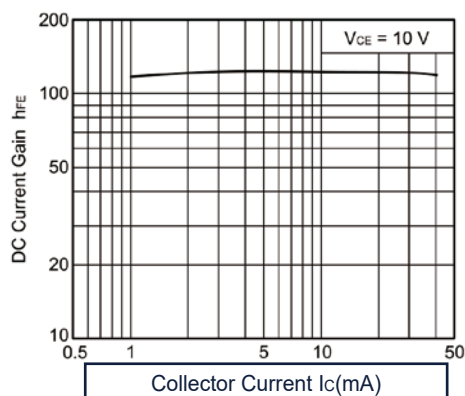
Total Power Dissipation
Vs. Ambient Temperature



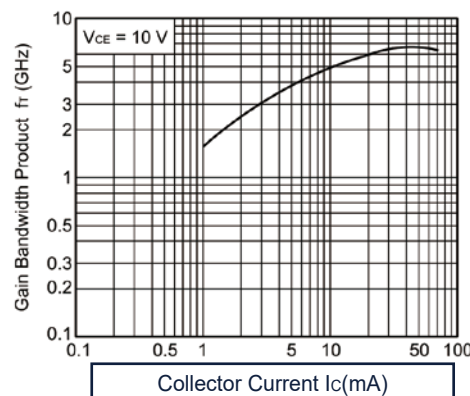
Reverse Transfer Capacitance
Vs. Collector To Base Voltage



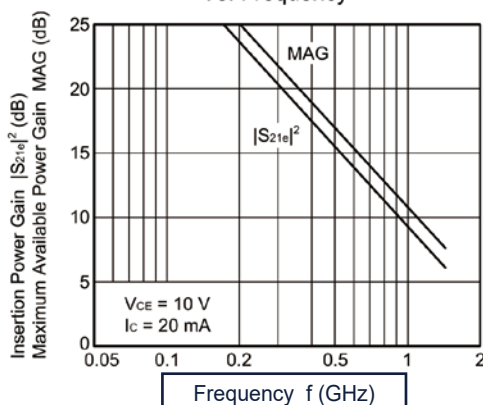
DC Current Gain Vs
Collector Current



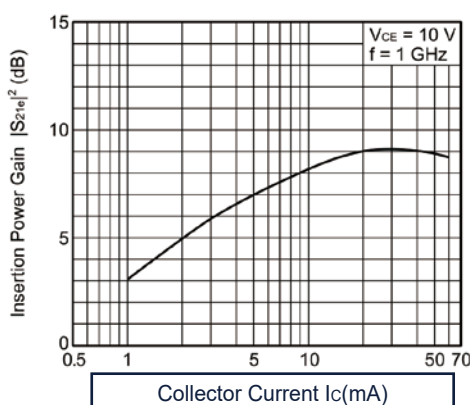
Gain Bandwidth Product
Vs. Collector Current



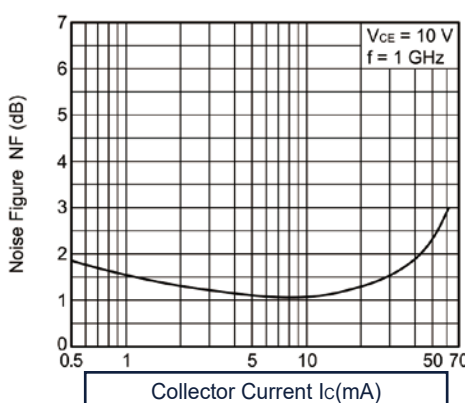
Insertion Power Gain, MAG
Vs. Frequency



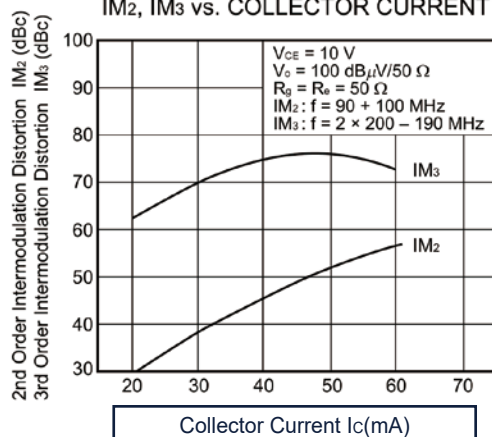
Insertion Power Gain
Vs. Collector Current



NOISE FIGURE vs.
COLLECTOR CURRENT

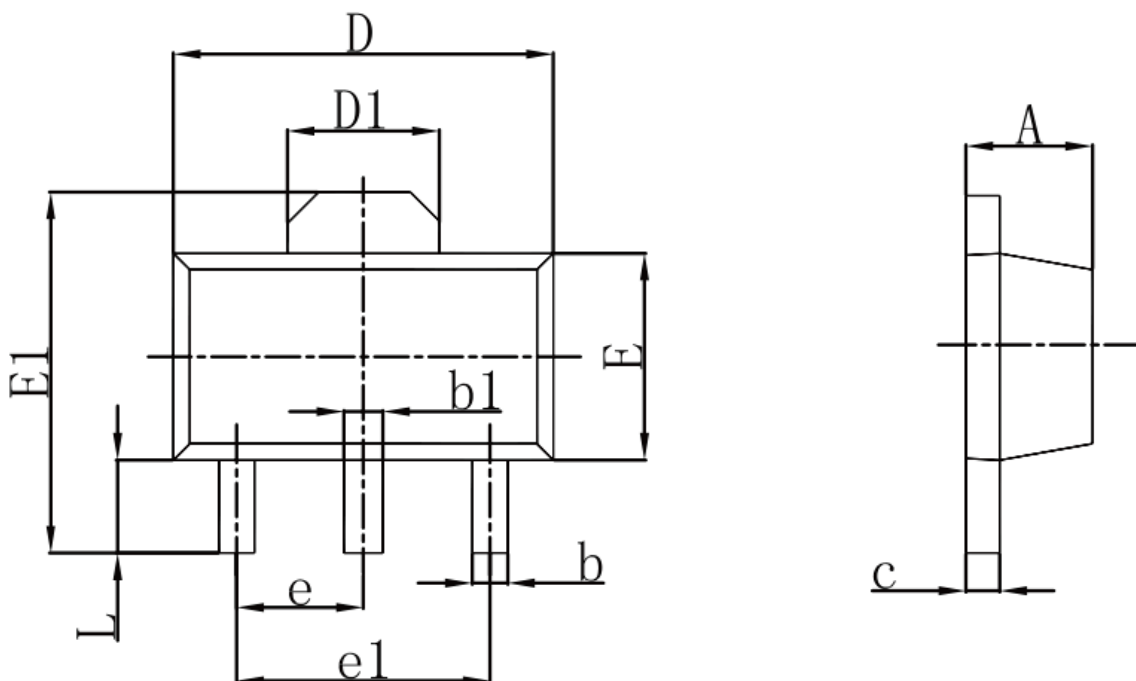


IM2, IM3 vs. COLLECTOR CURRENT





SOT-89-3L 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