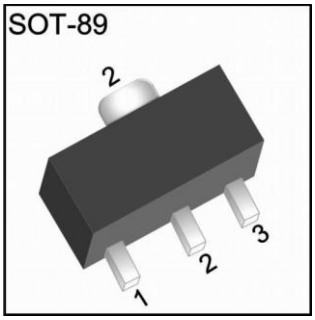
●硅 NPN 外延平面管



1:B 2:C 3:E

Marking Symbol： S58

● 用途：

高频放大/振荡/混频

● 特点：

高传输频率 f_T；

低输出电容 Cob、Crb；

●极限参数(Ta=25℃)

参数	符号	单位	规范值
耗散功率	Ptot	W	1.0
集电极电流	Ic	mA	100
结　　温	T(j)	℃	125
存贮温度	Tstg	℃	-55~+125
集电极-基极电压	V_{CBO}	V	20
集电极－发射极电压	V_{CEO}	V	13
发射极－基极电压	V_{EBO}	V	3

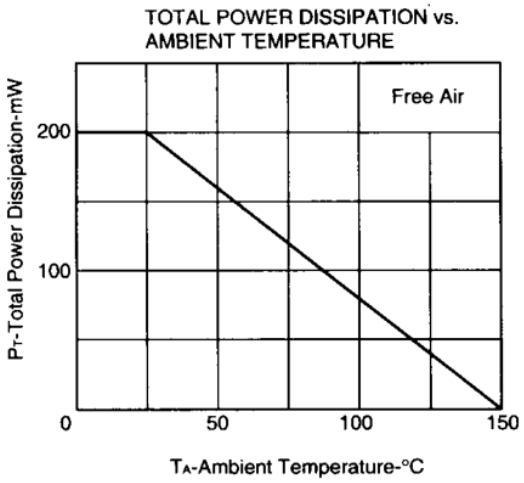
● 电参数(Ta=25℃)

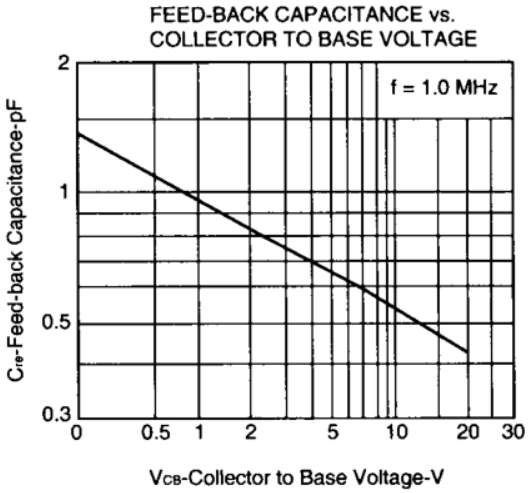
参数符号	测试条件	最小值	最大值	单位
I_{CBO}	V_{CB}＝10V　I_E＝0		1.0	μA
I_{CEO}	V_{CE}＝12V　I_B＝0		1.0	μA
I_{EBO}	V_{EB}＝1V　I_C＝0		90	nA
H_{FE}	V_{CE}＝10V　I_C＝20 mA	80	250	
f_T	V_{CE}＝3V　I_C＝20mA	TYP：7.0		GH_Z
Cre	V_{CB}＝3V　I_E＝0　f=1MH_Z	TYP：0.75		pF
$\|S_{21}\|^2$	V_{CE}＝3V　I_C＝10mA　f=1.0GH_Z	TYP：10		dB
NF	V_{CE}＝3V　I_C＝10 mA　f=1.0GH_Z	TYP：1.1		dB

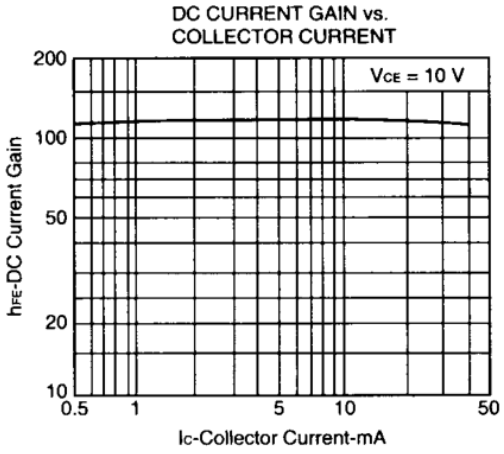
● H_{FE} 分档

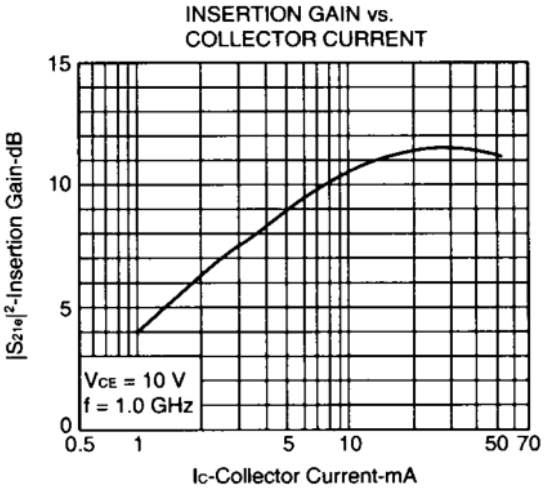
Rank	A	B	C
H_{FE}	80~120	120~180	180~250

●典型特征曲线 (TA=25℃)

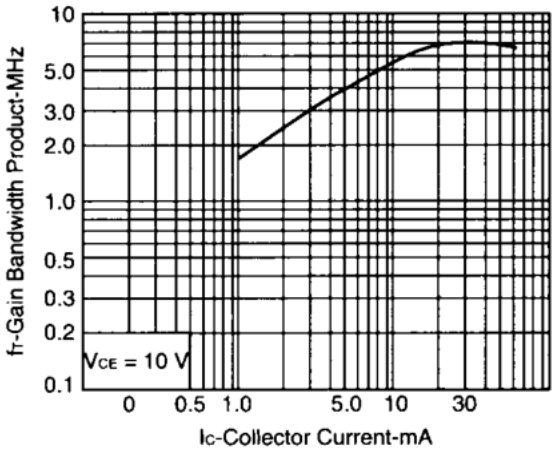

TOTAL POWER DISSIPATION vs.
AMBIENT TEMPERATURE
Free Air
PT-Total Power Dissipation-mW
200
100
0
50
100
150
TA-Ambient Temperature-°C


FEED-BACK CAPACITANCE vs.
COLLECTOR TO BASE VOLTAGE
f = 1.0 MHz
Cre-Feed-back Capacitance-pF
2
1
0.5
0.3
0
0.5
1
2
5
10
20
30
VCB-Collector to Base Voltage-V

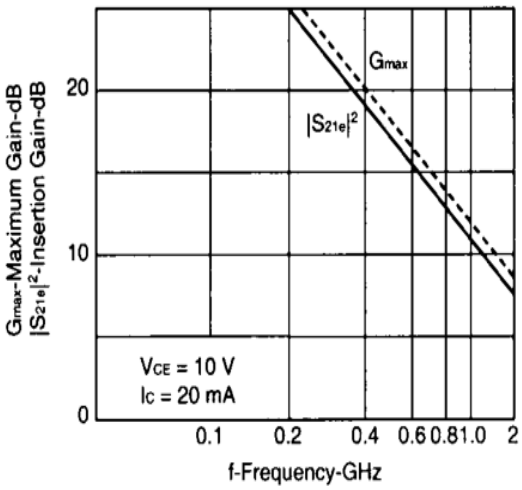

DC CURRENT GAIN vs.
COLLECTOR CURRENT
VCE = 10 V
hFE-DC Current Gain
200
100
50
20
10
0.5
1
5
10
50
IC-Collector Current-mA


INSERTION GAIN vs.
COLLECTOR CURRENT
|S21e|2-Insertion Gain-dB
15
10
5
0
VCE = 10 V
f = 1.0 GHz
0.5
1
5
10
50
70
IC-Collector Current-mA

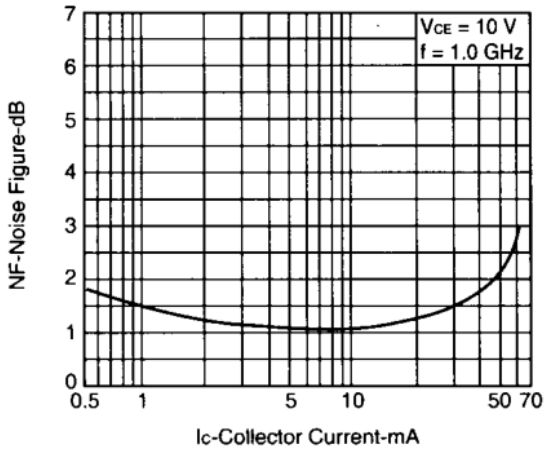
GAIN BANDWIDTH PRODUCT vs.
COLLECTOR CURRENT



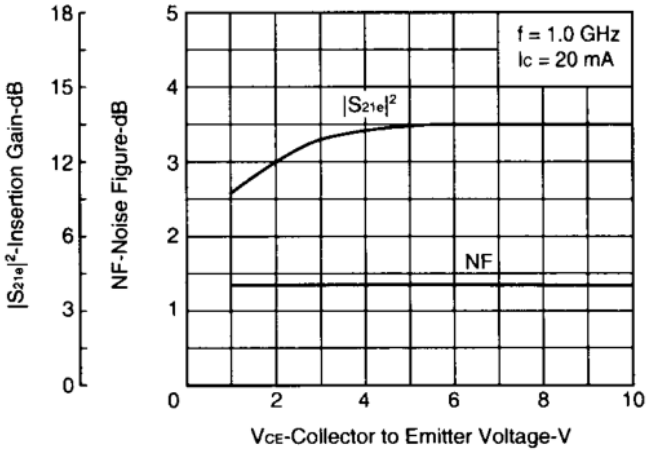
INSERTION GAIN, MAXIMUM GAIN
vs. FREQUENCY



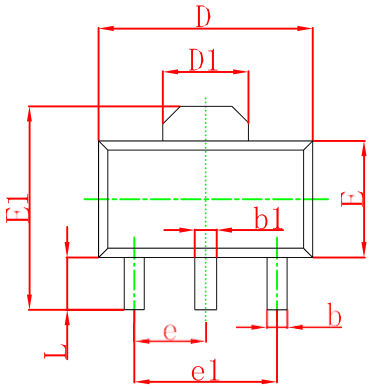
NOISE FIGURE vs.
COLLECTOR CURRENT

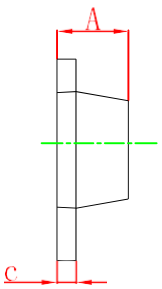


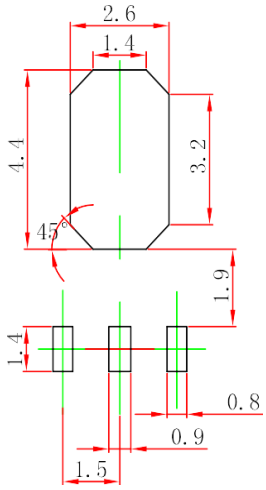
NOISE FIGURE, FORWARD INSERTION
GAIN vs. COLLECTOR TO EMITTER VOLTAGE



● DIMENTION SOT-89 外形封装尺寸







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