

Features

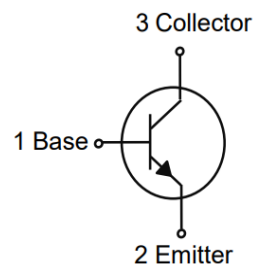
- Low Noise and High Gain
- High Power Gain

Application

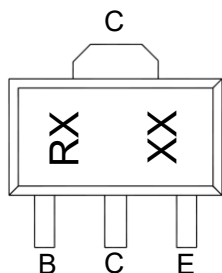
- low noise amplifier at VHF, UHF and CATV band applications



SOT-89-3L top view



Schematic diagram



RX= Device code(X=E,F,H)
 XX= Code

Marking and pin assignment



Halogen-Free

Maximum Ratings(Ta=25°C 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	100	mA
P_C	Collector Power Dissipation	1.2	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-50~+150	°C

Ordering Information (Example)

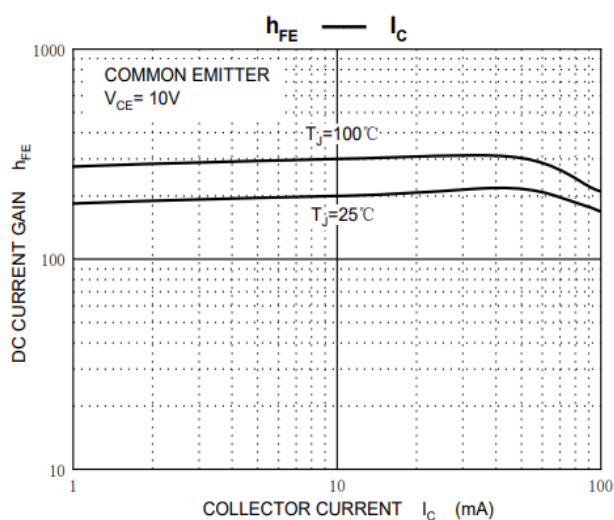
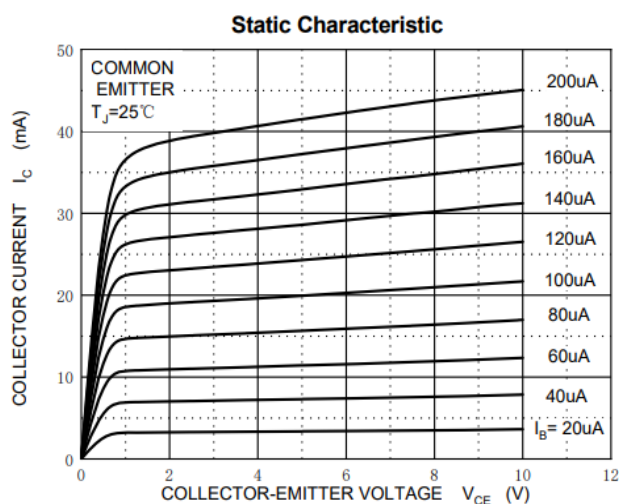
Type	Package	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
2SC3357	SOT-89-3L	1,000	10,000	40,000	7"reel

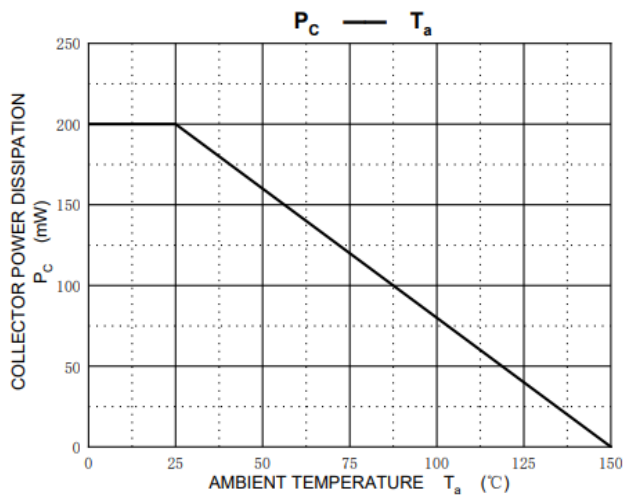
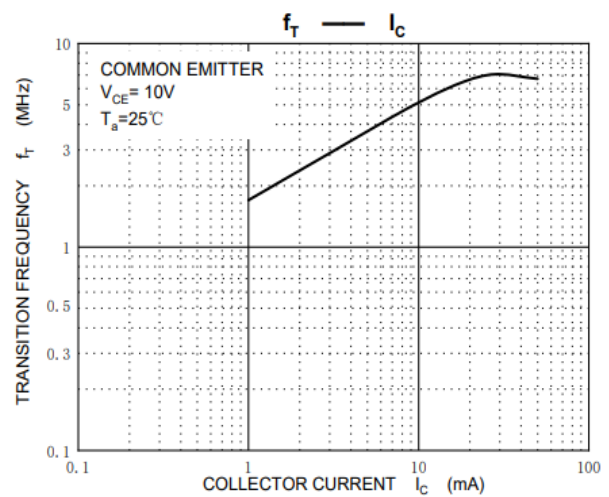
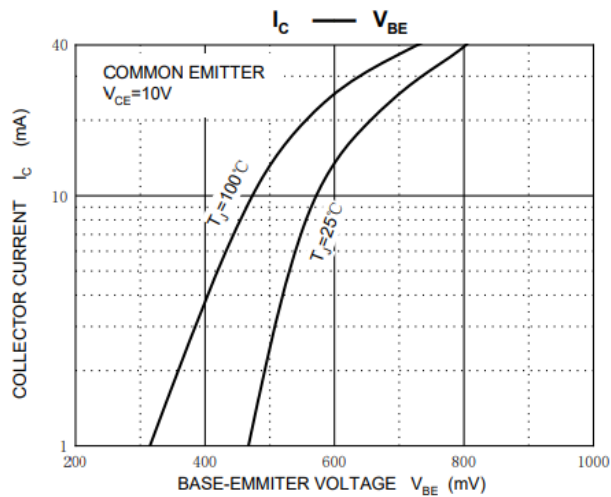
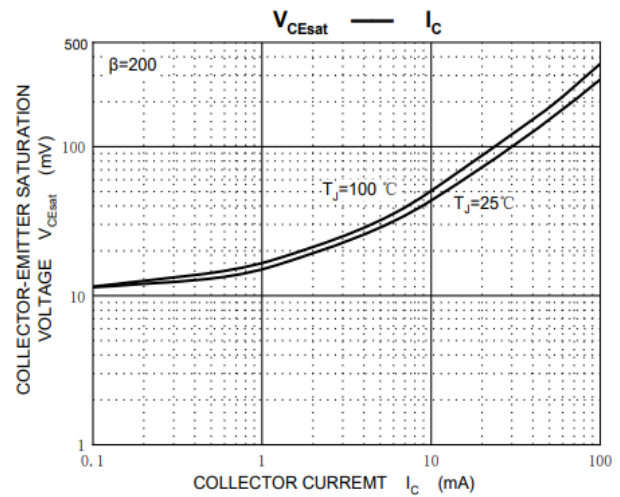
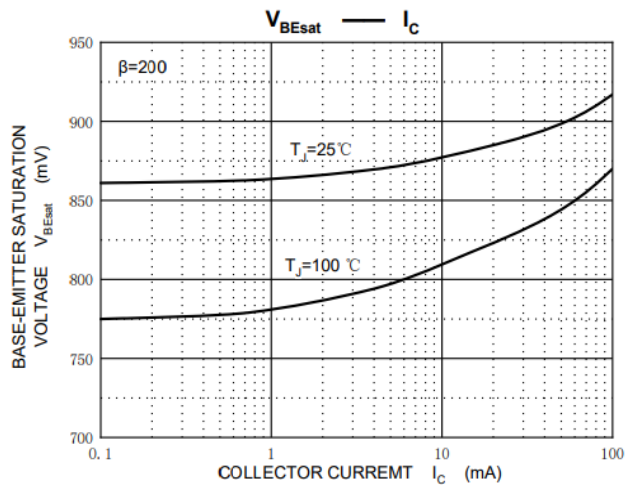
Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =100μA, 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 =100μA, I _C =0	3	--	--	V
I _{CBO}	Collector cut-off current	V _{CB} =10 V, 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	50	--	250	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =50 mA, I _B = 5mA	--	--	0.3	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =50 mA, I _B = 5mA	--	--	1.15	V
N _F	Noise Figure	V _{CB} =10V, I _C =7mA, f=1GHz	--	1.65	2	dB
C _{ob}	Collector output capacitance	V _{CE} =10V, I _E =0mA, f=1MHz	--	0.8	1	pF
f _T	Transition frequency	V _{CE} =10V, I _C = 20mA	--	7	--	GHz

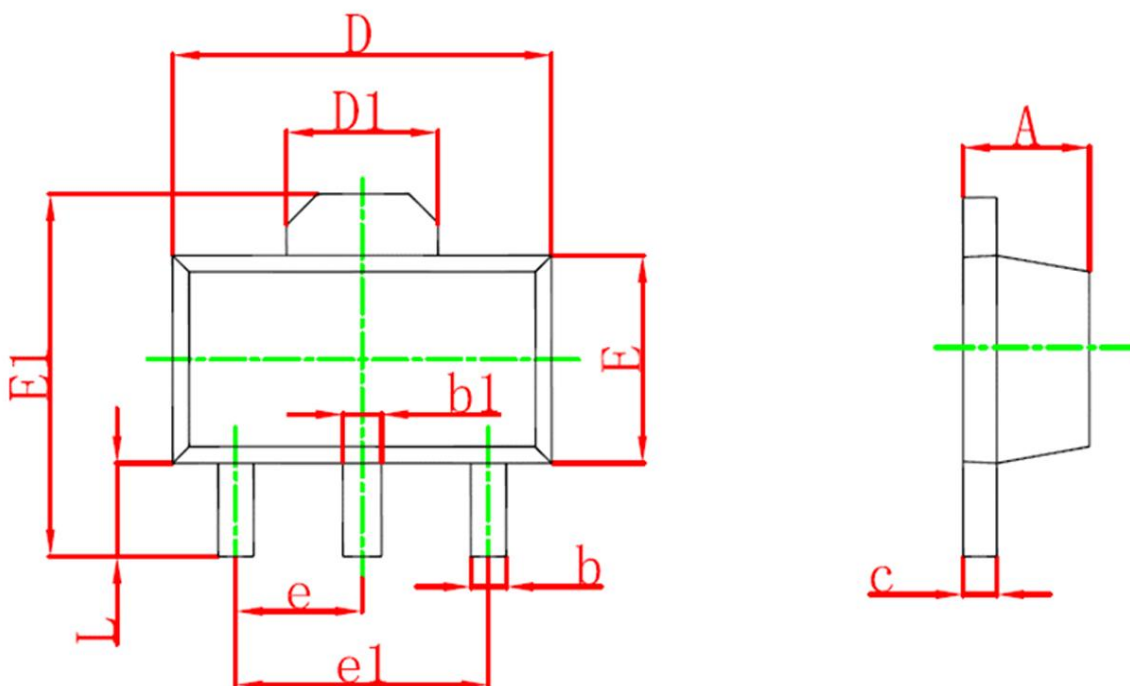
Classification of h_{FE}

Rank	A	B	C
Marking	RH	RF	RE
Range	50-100	80-160	125-250

Typical Operating Characteristics




SOT-89-3L Package information



Symbol	Dimensions in Millimeters(mm)		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