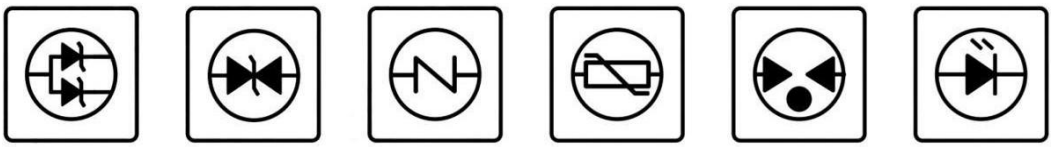
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SEMICONDUCTOR



2SC3357

Product specification

2SC3357

NPN Silicon Epitaxial Planar Transistor

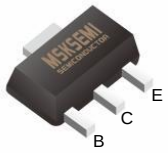
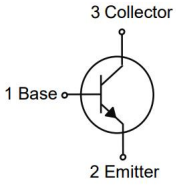
Features

- Low Noise and High Gain
- High Power Gain

Application

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

Reference News

SOT-89-3L	Schematic diagram	Marking
		RX XX

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

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	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	4,000	24,000	7"reel

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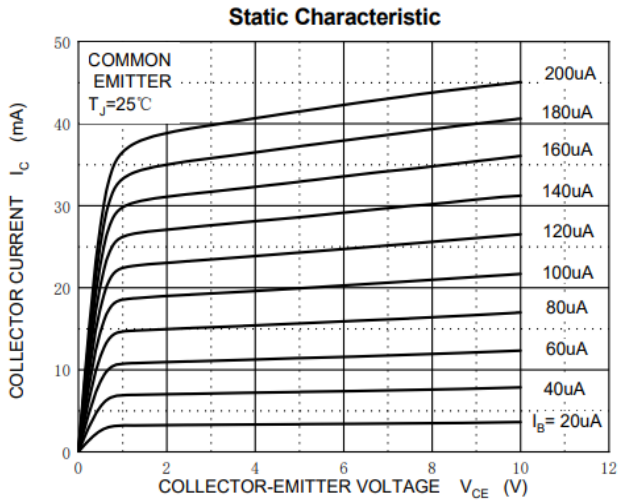
Electrical Characteristics (TJ=25℃ unless otherwise noted)

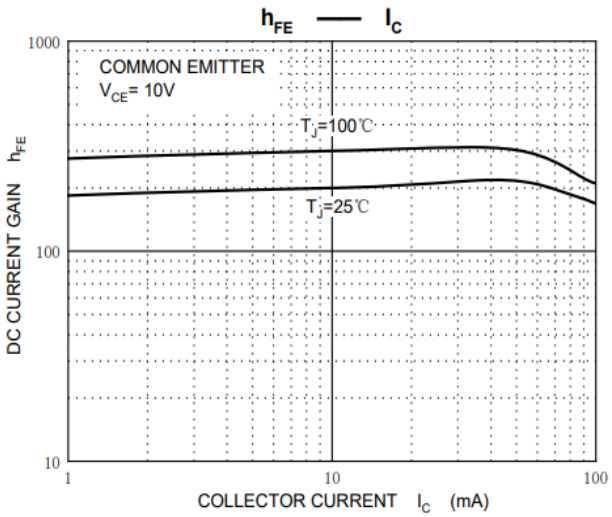
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=100μA, I_E=0	20	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA, I_B=0	12	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=100μA, I_C=0	3	--	--	V
I_{CBO}	Collector cut-off current	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 hFE

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

Typical Operating Characteristics



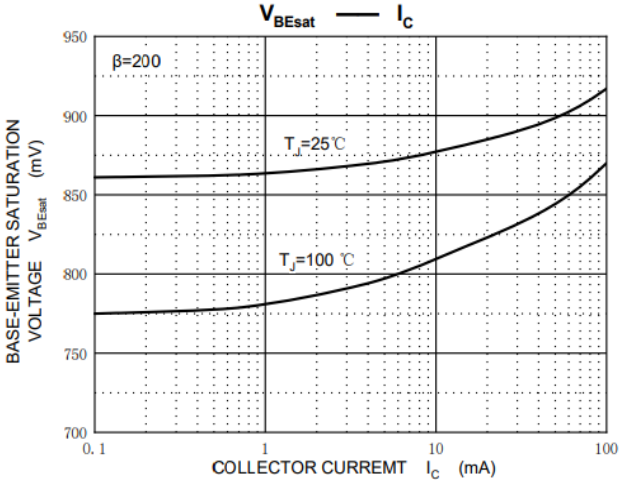


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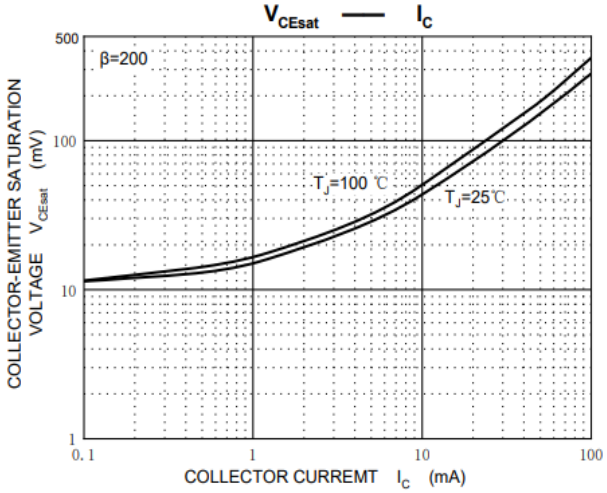
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NPN Silicon Epitaxial Planar Transistor

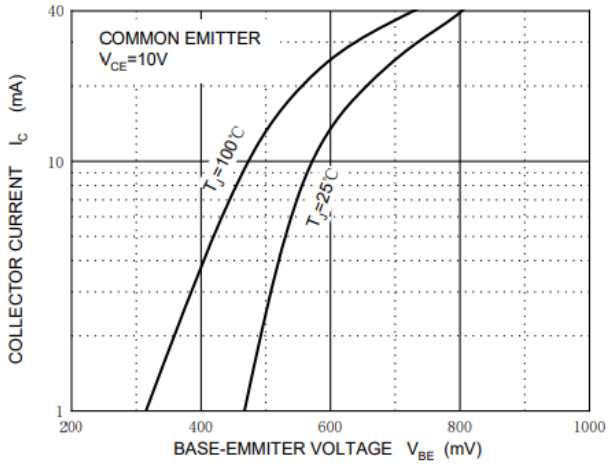
V_{BEsat} — I_C



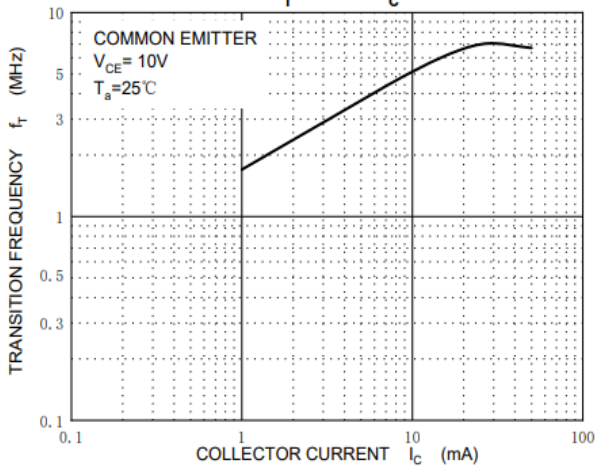
V_{CEsat} — I_C



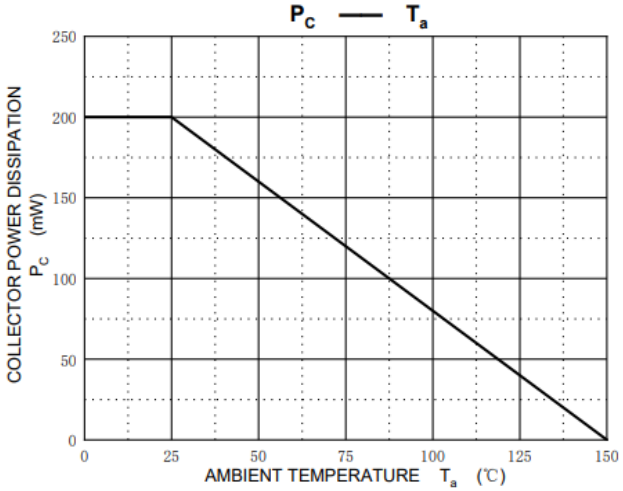
I_C — V_{BE}



f_T — I_C



P_C — T_a

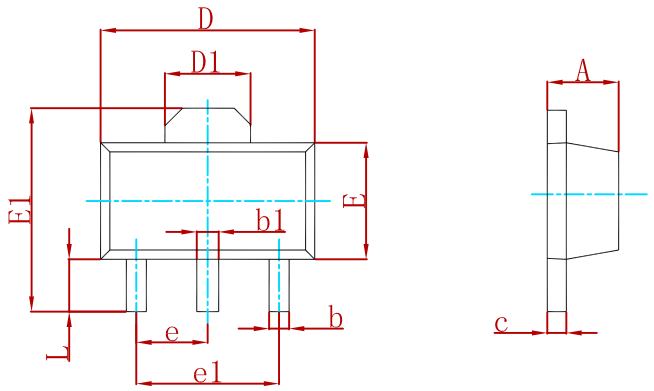


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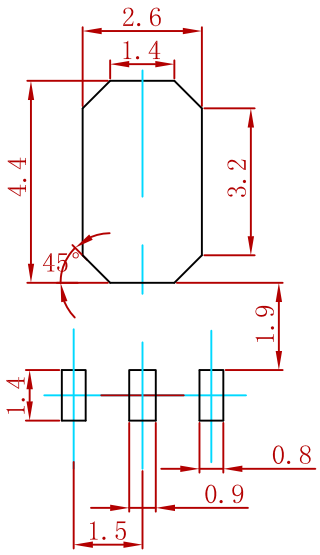
NPN Silicon Epitaxial Planar Transistor

PACKAGE MECHANICAL DATA



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

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

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