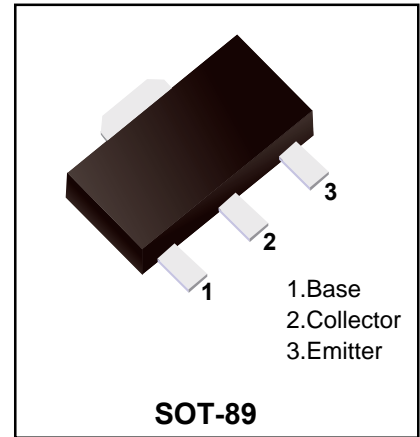


SILICON TRANSISTOR
NPN SILICON EPITAXIAL TRANSISTOR
POWER MINI MOLD



DESCRIPTION

◆The 2SC3357 is an NPN silicon epitaxial transistor designed for low noise amplifier at VHF, UHF and CATV band. It has large dynamic range and good current characteristic.

FEATURES

- ◆Low Noise and High Gain
NF = 1.1 dB TYP., Ga = 8.0 dB TYP. @VCE = 10 V,
IC = 7 mA, f = 1.0 GHz
NF = 1.8 dB TYP., Ga = 9.0 dB TYP. @VCE = 10 V,
IC = 40 mA, f = 1.0 GHz
- ◆Large PT in Small Package
PT : 2 W with 16 cm² × 0.7 mm Ceramic Substrate.

Absolute Maximum Ratings (Ta=25°C)

Characteristics	Symbols	Value	Units
Collector-Base Voltage	V _{CB0}	20	V
Collector-Emitter Voltage	V _{CEO}	12	V
Emitter-Base Voltage	V _{EBO}	3.0	V
Collector Current -Continuous	I _c	100	mA
Total Power Dissipation	PT*	1.2	W
Thermal Resistance	R _{th(j-a)} *	62.5	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-65 to +150	°C

* mounted on 16 cm² × 0.7 mm Ceramic Substrate

Electrical Characteristics (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Collector Cutoff Current	I _{cBO}	V _{CB} = 10V, I _E = 0			1.0	uA
Emitter Cutoff Current	I _{EBO}	V _{EB} = 1.0V, I _c = 0			1.0	uA
DC Current Gain	h _{FE} *	V _{CE} = 10V, I _c = 20 mA	50	120	300	
Gain Bandwidth Product	f _T	V _{CE} = 10V, I _c = 20 mA		6.5		GHz
Feed-Back Capacitance	C _{re} **	V _{CB} = 10V, I _E = 0, f = 1.0MHz		0.65	1.0	pF
Insertion Power Gain	S _{21e} ²	V _{CE} = 10V, I _c = 20 mA, f=1.0 GHz		9		dB
Noise Figure	NF	V _{CE} = 10V, I _c = 7mA, f=1.0GHz		1.1		dB
Noise Figure	NF	V _{CE} = 10V, I _c = 40 mA, f=1.0 GHz		1.8	3.0	dB

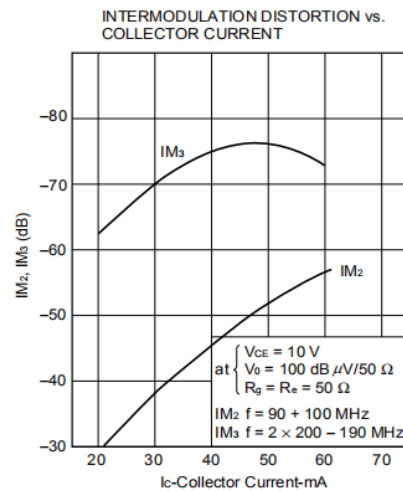
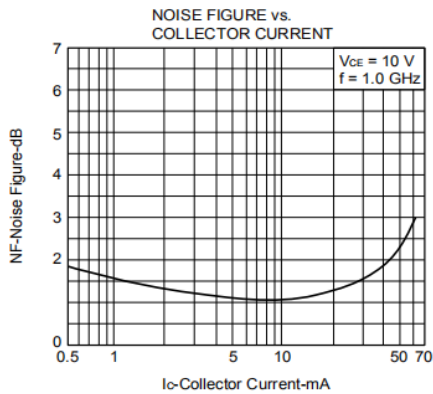
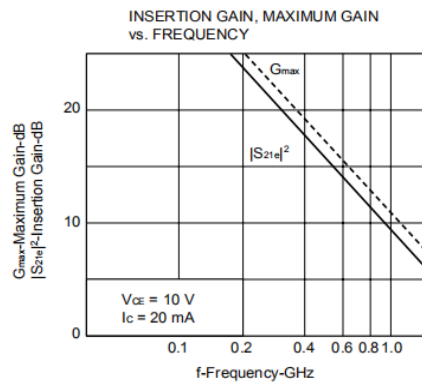
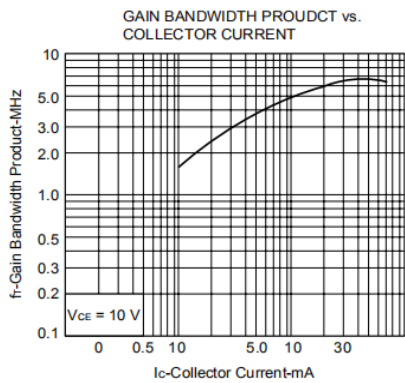
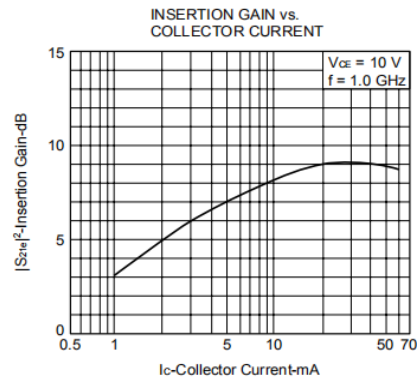
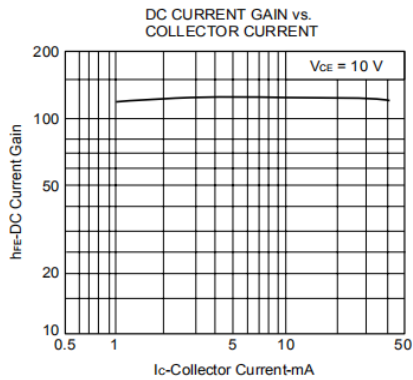
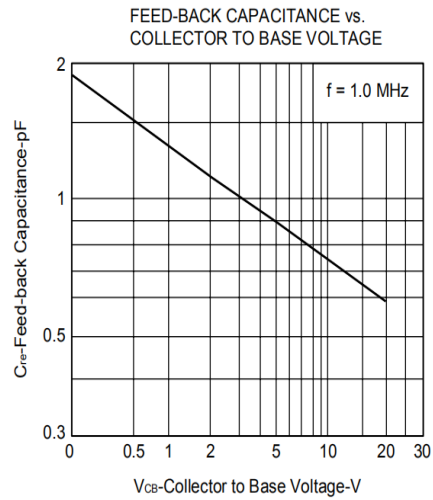
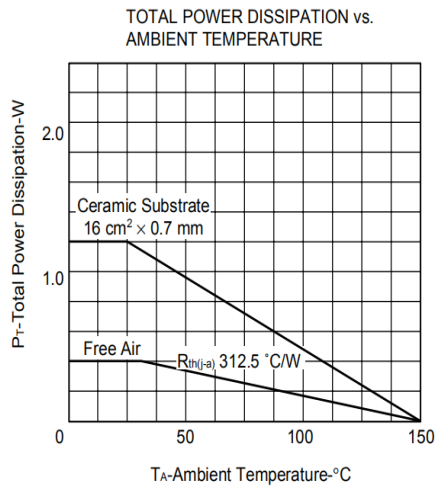
* Pulse Measurement PW ≤ 350 us, Duty Cycle ≤ 2 %

** The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

h_{FE} Classification

Classification	2SC3357-RH	2SC3357-RF	2SC3357-RE
h _{FE}	50~100	80~160	125~250
Marking	RH	RF	RE

TYPICAL CHARACTERISTICS (TA= 25 °C)



Ordering information

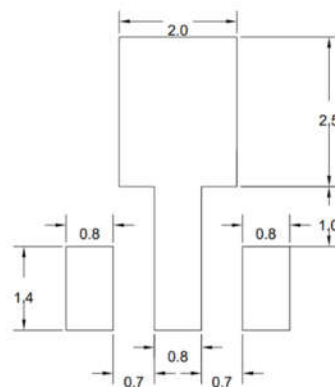
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel,7"reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

Disclaimer

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