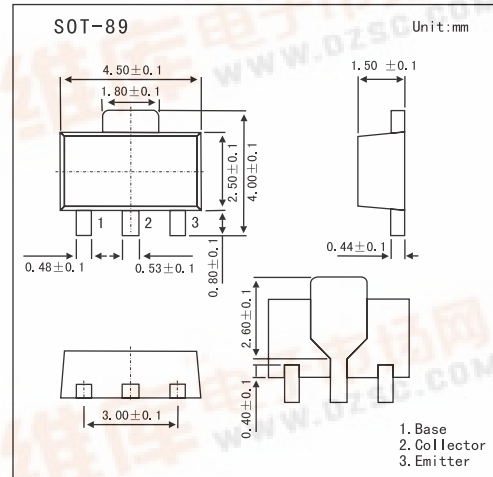


SMD Type Transistors

NPN Silicon RF Transistor
2SC3357

■ Features

- Low Noise and High Gain
 NF = 1.1 dB TYP., Ga = 7.5 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
- High power gain : MAG = 10 dB TYP. @ Ic = 40 mA, f = 1 GHz



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	20	V
Collector-emitter voltage	V _{CEO}	12	V
Emitter-base voltage	V _{EB0}	3.0	V
Collector current	I _c	100	mA
Total power dissipation	P _T *	1.2	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-65 to +150	°C
Thermal Resistance	R _{th(j-a)} *	62.5	°C/W

* mounted on 16 cm² X 0.7 mm(t) Ceramic Substrate

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 10V, I _E = 0			1.0	μ A
Emitter cutoff current	I _{EBO}	V _{EB} = 1.0V, I _C = 0			1.0	μ A
DC current gain	h _{FE} *1	V _{CE} = 10V, I _C = 20mA	50	120	250	
Insertion Power Gain	S _{21e} ²	V _{CE} = 10 V, I _C = 20 mA, f = 1.0 GHz		9		dB
Noise Figure	NF	V _{CE} = 10 V, I _C = 7 mA, f = 1.0 GHz		1.1		dB
		V _{CE} = 10 V, I _C = 40 mA, f = 1.0 GHz		1.8	3.0	dB
Output Capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz		0.65	1.0	pF
Transition frequency	f _T	V _{CE} = 10V, I _C = 20mA		6.5		GHz

*1 Pulse Measurement PW ≤ 350 ms, Duty Cycle ≤ 2 %

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

■ hFE Classification

Marking	RH	RF	RE
Rank	RH	RF	RE
hFE	20~100	80~160	125~250

