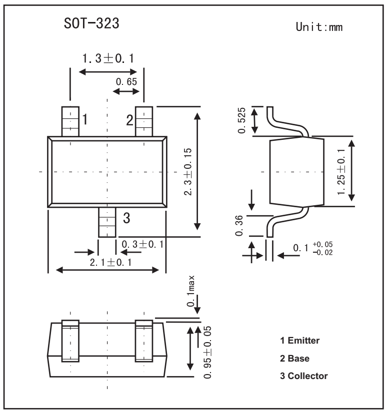
Silicon NPN Epitaxial

2SC4249



Features

- High gain: G_{pe} = 24dB (typ.) (f = 200 MHz)
- Low noise: NF = 2.0dB (typ.) (f = 200 MHz)
- Excellent forward AGC characteristics

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	3	V
Collector current	I_C	20	mA
Base current	I_B	10	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	125	℃
Storage temperature	T_{stg}	-55 to +125	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 25 V, I_E = 0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB} = 2 V, I_C = 0			100	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1 mA, I_B = 0	30			V
DC current gain	h_{FE}	V_{CE} = 10 V, I_C = 2 mA	60	150	300	
Reverse transfer capacitance	C_{re}	V_{CB} = 10 V, IE = 0, f = 1 MHz		0.35	0.5	pF
Transition frequency	f_T	V_{CE} = 10 V, I_C = 2 mA	400	650		MHz
Power gain	G_{pe}	V_{CC} = 12 V, V_{AGC} = 1.4 V,f = 200 MHz	20	24	28	dB
Noise figure	NF			2.0	3.2	dB
AGC voltage	V_{AGC}	V_{CC} = 12 V, G_R = 30dB, f = 200 MHz	3.6	4.4	5.1	V

Marking

Marking	HD