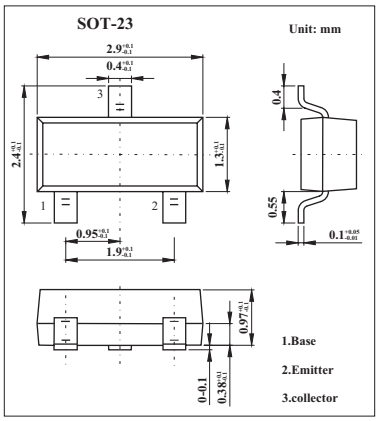
Silicon NPN Epitaxial

2SC3122



Features

- High Gain: G_{pe}=24dB(Typ.)(f=200MHz)
- Low Noise :NF=2.0dB(Typ.)(f=200MHZ)
- 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	150	mW
Junction temperature	T_j	125	℃
Storage temperature Range	T_{stg}	-55 to +125	℃

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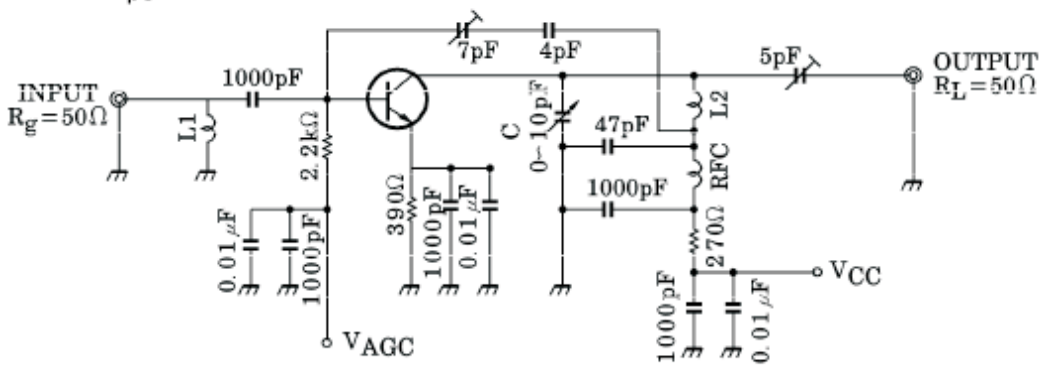
■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 25V, I_E = 0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB} = 2V, I_C = 0			100	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	30			V
DC current gain	h_{FE}	V_{CE} = 10 V, I_C = 2 mA	60	150	300	
Reverse Transfer Capacitance	Cre	V_{CB}=10V,I_E=0,f=1MHz		0.3	0.45	pF
Transition Frequency	f_T	V_{CE} = 10 V, I_C = 2mA	400	650		MHz
Power Gain	G_{pe}	V_{ce}=12V,V_{AGC}=1.4V,f=200MHz	20	24	28	dB
Noise Figure	NF	V_{CC}=12V,GR=30dB,f=200MHZ *		2.0	3.2	dB
AGC Voltage	V_{AGC}		3.6	4.4	5.1	V

*V_{AGC} measured by test circuit shown in Fig.1 when power gain is reduced to 30dB compared that of V_{AGC} at 1.4V

Fig.1 200MHz G_{pe}, NF TEST CIRCUIT



L1 : RF Coil M-15T (TOKO Inc.) or EQUIVALENT
L2 : RF Coil M-25T (TOKO Inc.) or EQUIVALENT

■ Marking

Marking	HD