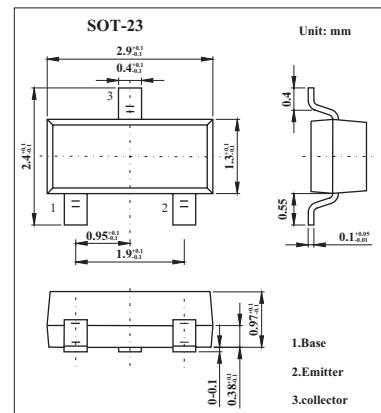


Silicon NPN Epitaxial

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°C

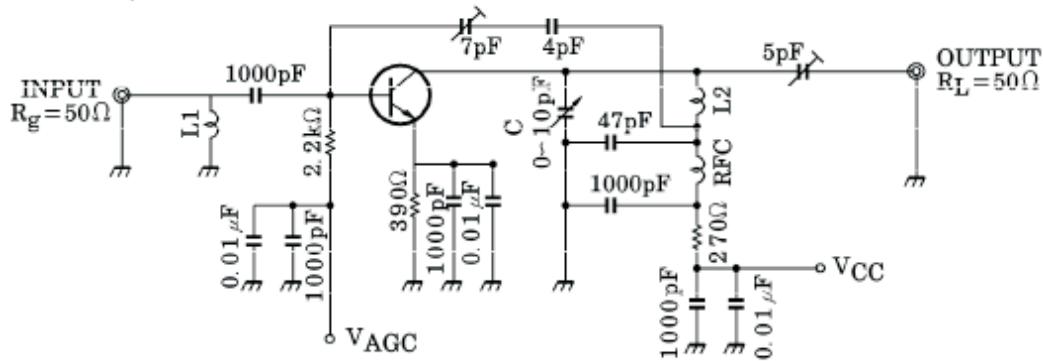
Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	30	V
Collector-emitter voltage	V _{CCEO}	30	V
Emitter-base voltage	V _{EBO}	3	V
Collector current	I _C	20	mA
Base current	I _B	10	mA
Collector Power Dissipation	P _C	150	mW
Junction temperature	T _j	125	°C
Storage temperature Range	T _{stg}	-55 to +125	°C

2SC3122■ Electrical Characteristics $T_a = 25^\circ\text{C}$

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