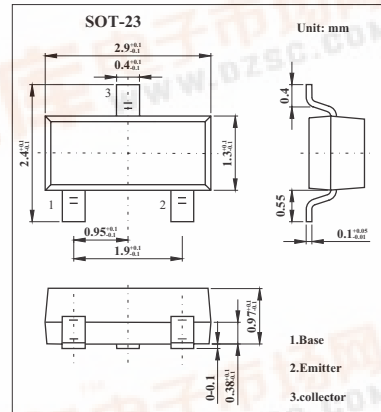


SMD Type Transistors

Silicon NPN Epitaxial
2SC3122

Features

- High Gain: $G_{pe}=24\text{dB(Typ.)}(f=200\text{MHz})$
- Low Noise : $NF=2.0\text{dB(Typ.)}(f=200\text{MHz})$
- Excellent Forward AGC Characteristics



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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	$^\circ\text{C}$
Storage temperature Range	T_{stg}	-55 to +125	$^\circ\text{C}$

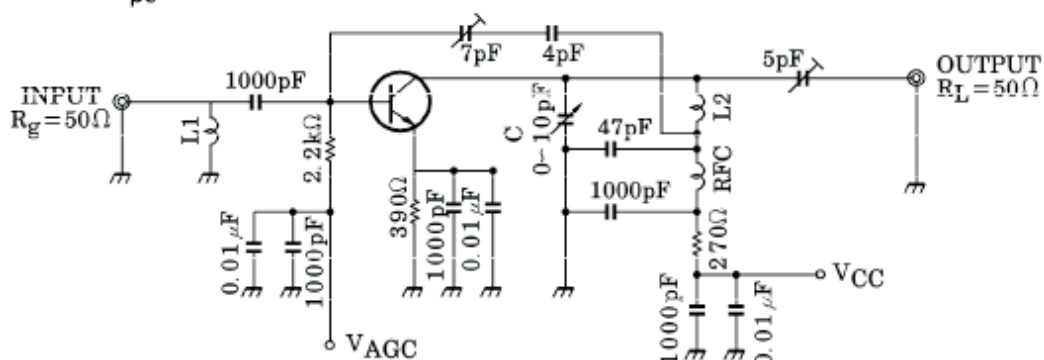
2SC3122

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	IcBO	Vcb = 25V, Ie = 0			100	nA
Emitter cut-off current	IeBO	VEB = 2V, Ic = 0			100	nA
Collector-emitter breakdown voltage	V(BR)CEO	Ic=1mA, Ie=0	30			V
DC current gain	hFE	VCE = 10 V, Ic = 2 mA	60	150	300	
Reverse Transfer Capacitance	Cre	Vcb=10V, Ie=0, f=1MHz		0.3	0.45	pF
Transition Frequency	fr	VCE = 10 V, Ic = 2mA	400	650		MHz
Power Gain	Gpe	Vce=12V, VAGC=1.4V, f=200MHz	20	24	28	dB
Noise Figure	NF	Vcc=12V, GR=30dB, f=200MHZ *		2.0	3.2	dB
AGC Voltage	VAGC		3.6	4.4	5.1	V

*VAGC measured by test circuit shown in Fig.1 when power gain is reduced to 30dB compared that of VAGC 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
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