

2SC4068

Silicon NPN Epitaxial Planar Type

For UHF amplification and mixing

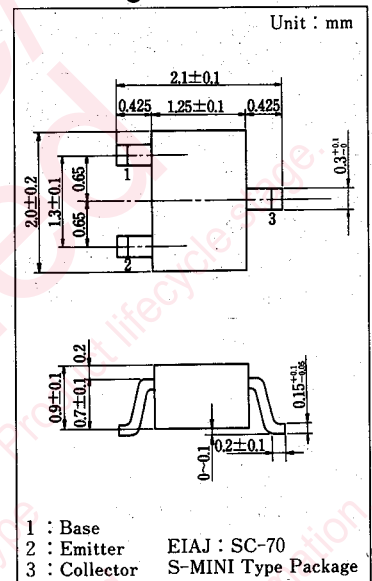
■ Features

- High power gain PG
- Low noise figure NF
- An S-MINI type package that allows downsizing of equipment and automatic insertion by taping and magazine packaging

■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	30	V
Collector-Emitter Voltage	V _{CEO}	20	V
Emitter-Base Voltage	V _{EBO}	3	V
Collector Current	I _C	20	mA
Collector Power Dissipation	P _C	150	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C

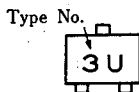
■ Package Dimensions



■ Electrical Characteristics (Ta=25°C)

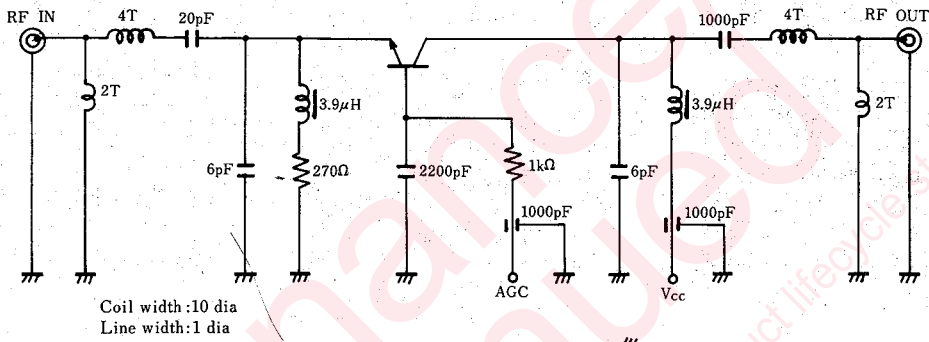
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} =25V, I _E =0			1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =3V, I _C =0			10	μA
DC Current Gain	h _{FE1}	V _{CE} =3.4V, I _C =1.8mA	40		200	
	h _{FE2}	V _{CE} =3.4V, I _C =10mA	20		200	
Transition Frequency	f _T	V _{CE} =3.4V, I _C =1.8mA, f=800MHz		1500		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		0.7		pF
Power Gain	PG ₁	V _{CC} =3.4V, I _C =1.8mA, f=200MHz		18		dB
	PG ₂	V _{CC} =3.4V, I _C =1.8mA, f=800MHz	9	12		dB
Noise Figure	NF ₁	V _{CC} =3.4V, I _C =1.8mA, f=200MHz		5		dB
	NF ₂	V _{CC} =3.4V, I _C =1.8mA, f=800MHz		7	8.5	dB
AGC Characteristics	I _{AGC}	V _{CC} =3.4V, G _R =-30dB, f=800MHz	6.9	7.9		mA

■ Type Name Marking

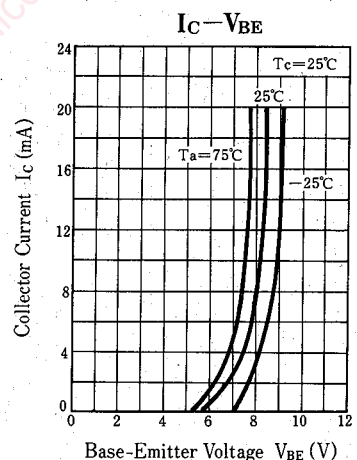
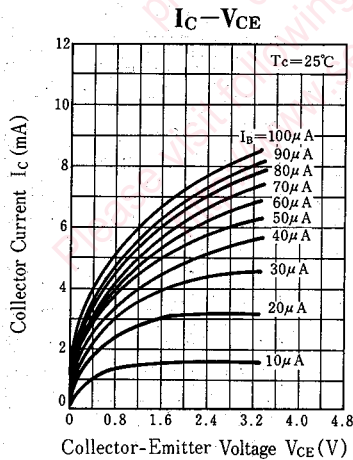
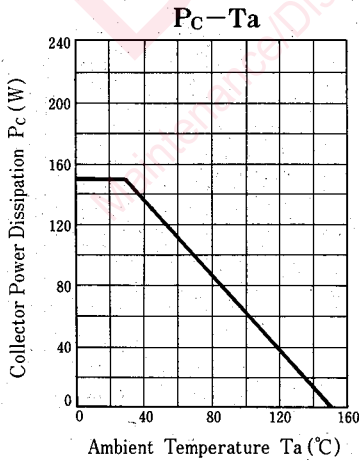
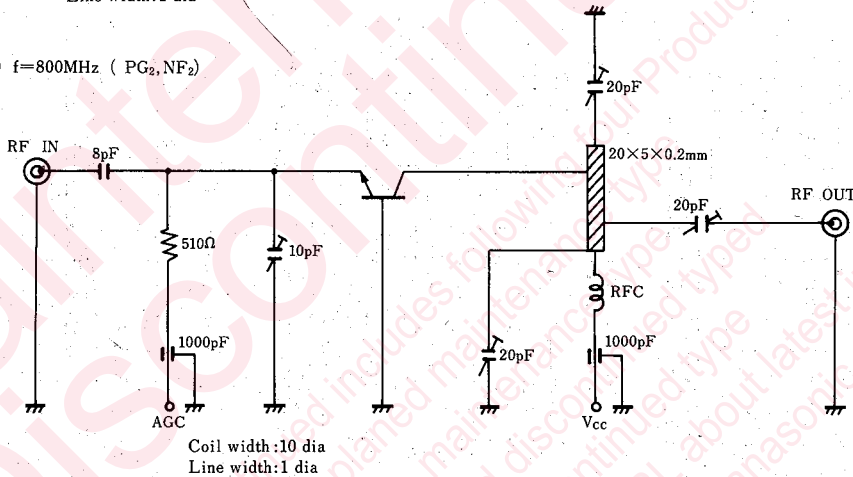


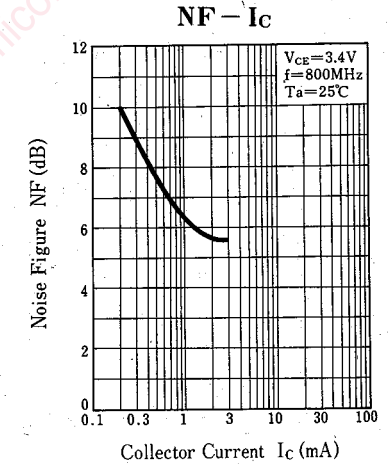
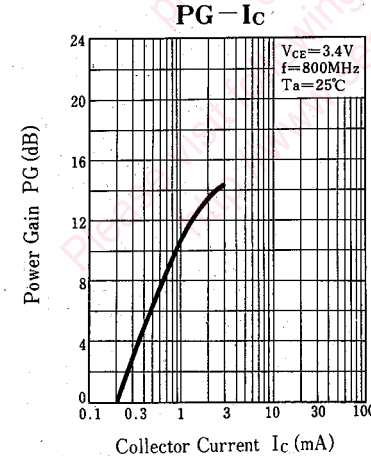
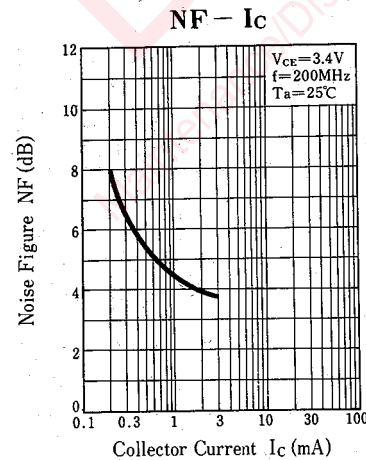
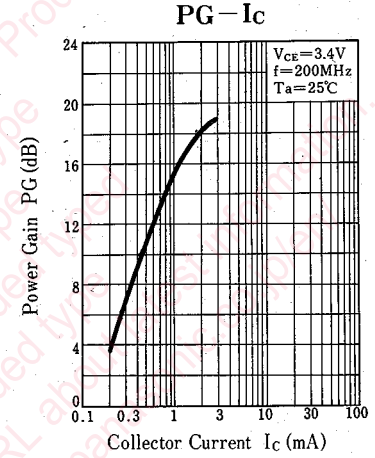
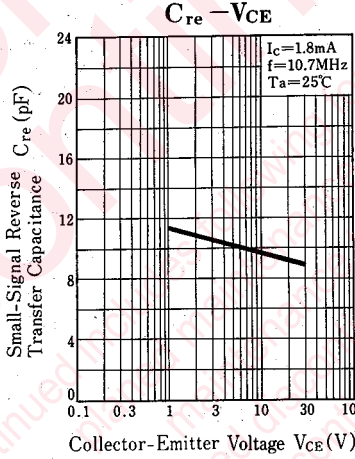
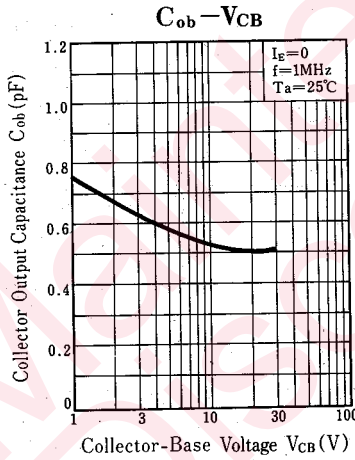
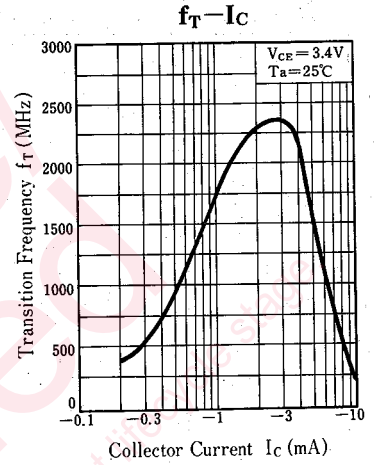
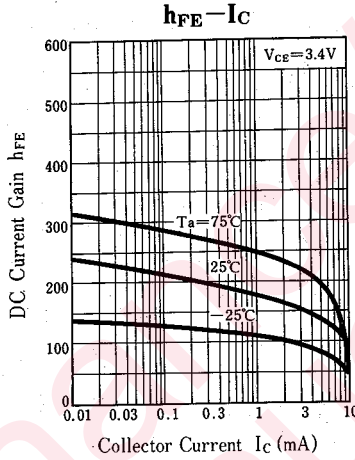
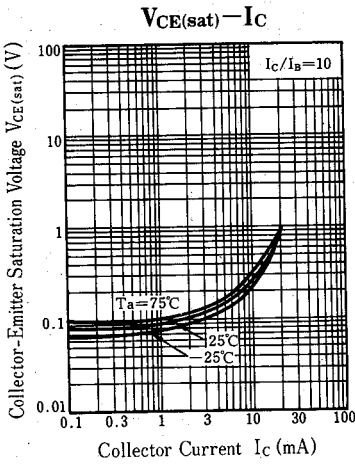
PG, NF Test Circuits

1) $f=200\text{MHz}$ (PG₁, NF₁)



2) $f=800\text{MHz}$ (PG₂, NF₂)





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