

SAC3063



GaAs MMIC Low Noise Amplifier
0.8GHz~1.6GHz NF 0.4dB

Rev 1.1

Features

- Frequency: 0.8GHz~1.6GHz
- Gain: 30dB
- Noise Figure: 0.4dB
- OutputP_{-1dB}:12dBm
- Power Supply: +5V@50mA
- Size: 1.32mmX1.21mmX0.1mm

Typical Applications

- Microwave radio
- Telecommunication
- Test instrumentation

General Description

SAC3063 is a GaAs MMIC Low Noise Amplifier die which operates between 0.8GHz~1.6GHz. The amplifier can provide 30dB gain, 12dBm OutputP_{-1dB}, 0.4dB noise figure from a +5V supply voltage.

Electrical Performance (T_A=25°C, V_D=+5V, I_D=50mA, Z₀=50Ω)

Parameter	Min	Typ.	Max	Units
Frequency Range	0.8~1.6			GHz
Gain	25	30	—	dB
Gain Flatness	—	±1.5	—	dB
Reverse Isolation	-35	-45	—	dB
Input/Output Return Loss	—	-13	-10	dB
Noise Figure	—	0.4	0.65	dB
Output Power for 1 dB Compression (OP _{-1dB})	11	12	—	dBm
Output IP ₃ *	—	24	—	dBm
Supply Voltage (V _D)	4.85	5	5.3	V
Supply Current(I _D)	—	50	—	mA

*Pout / Tone = 0dBm, f_c= 1GHz, Δf=5MHz

Absolute Maximum Ratings

Maximum Input Power	+12dBm	Operating Temperature	-40°C~+70°C
Channel Temperature	150°C	Storage Temperature	-65°C~+150°C
Maximum V _D	+5.5V		

SuperApex, LLC

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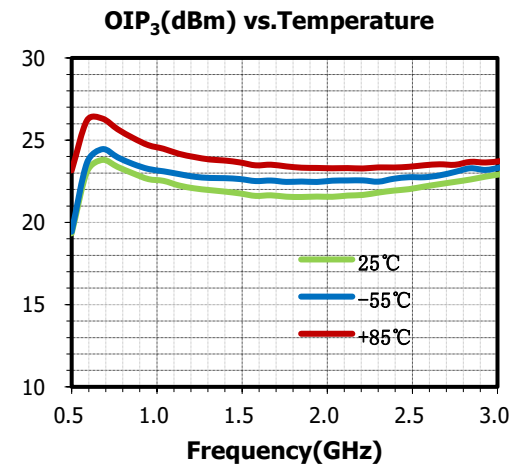
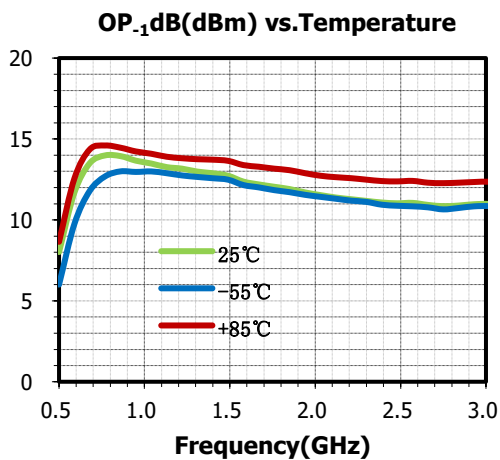
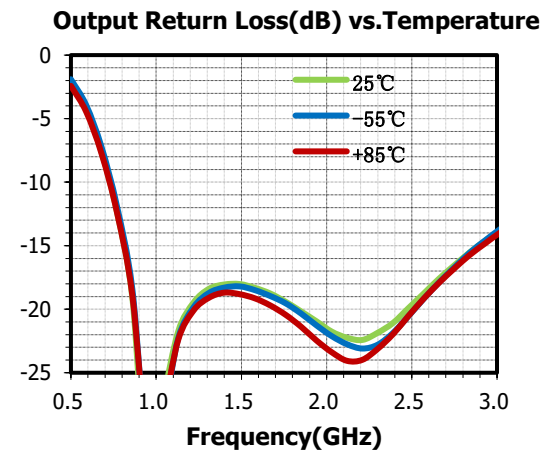
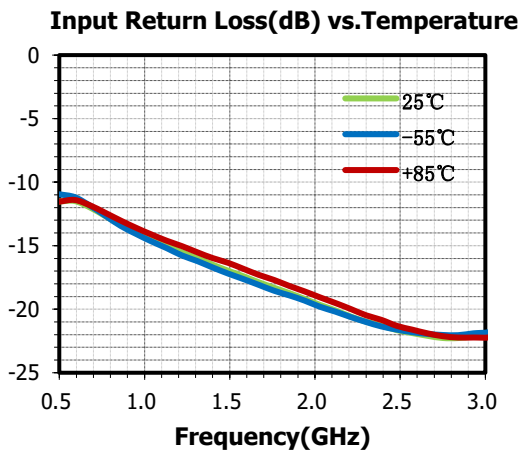
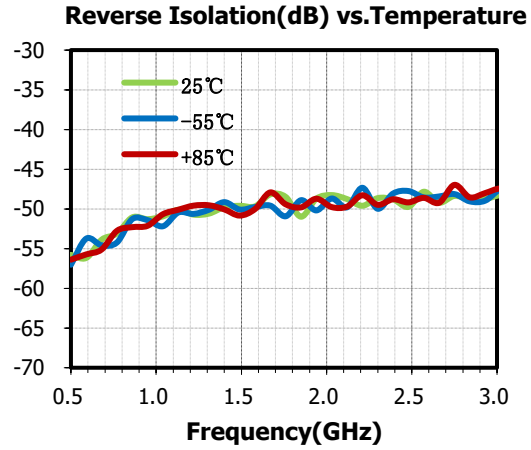
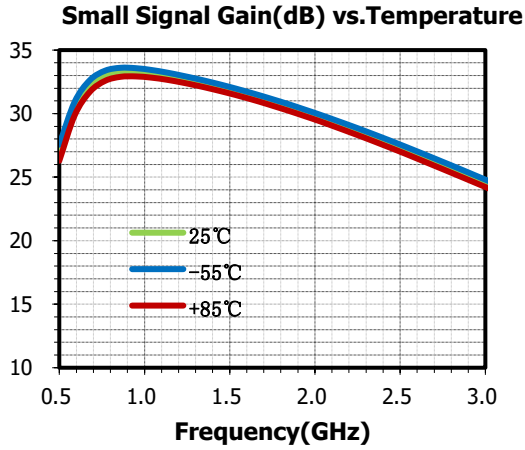
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Typical Performance Curve



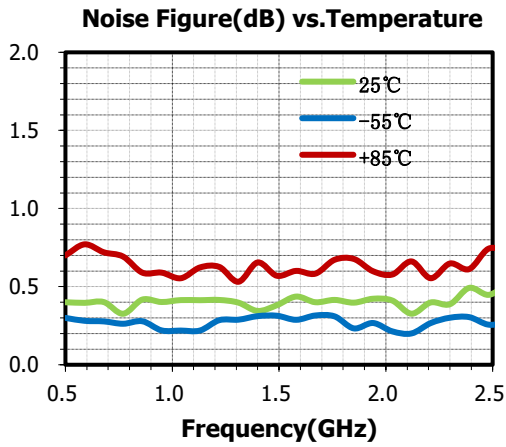
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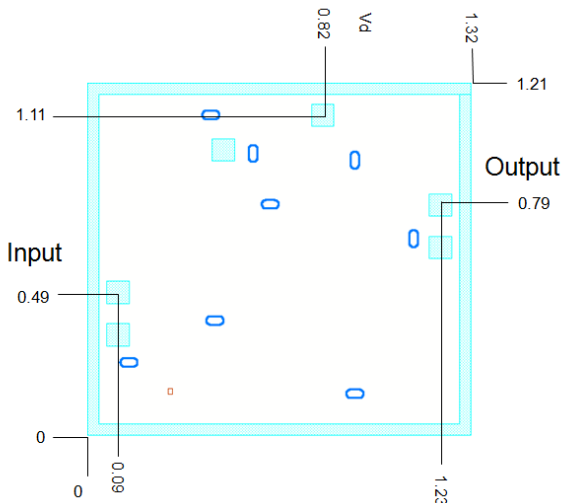
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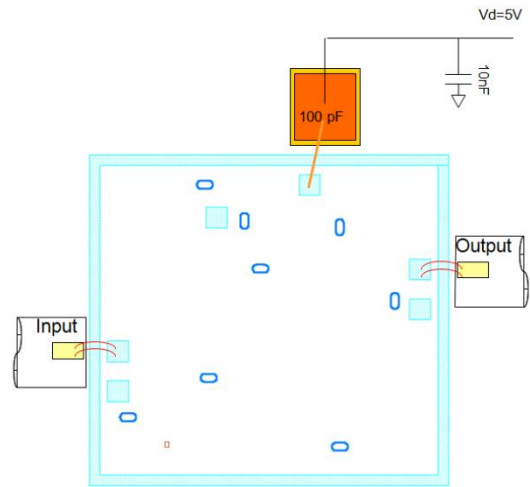
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Outline Drawing (All dimensions in mm)



Assembly Diagram



Attention:

GaAs MMIC devices are susceptible to damage from Electrostatic Discharge. Proper precautions should be observed during handling, assembly and test.

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