ACGI053059-P46

C-band matched GaAs Device

Features:

Frequency: 5.3~5.9GHz

Saturated Output Power : P_{Sat}=46dBm(type)

PowerGain: Gain=8.5dB(type)

Add-Efficiency: PAE=35%(type)

Port matching: Zin/Zout=50Ω

Description:

ACGI053059-P46 is an internal matching GaAs device, which adopts advanced co-planar internal matching MCM and thin film circuit technology. The typical working frequency range is 5.3~5.9GHz. This device can be used in different RF/Microwave system and subsystem. The high output power level, high efficiency and wide operating temperature range can make application very flexible.

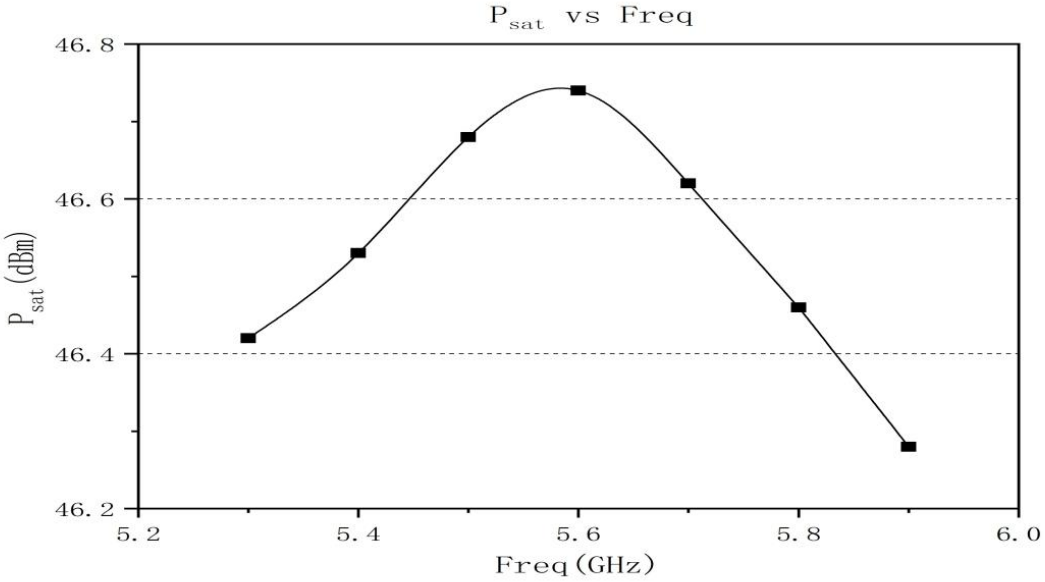
Maximun Ratings (TC=25℃, Not recommended working under this condition):

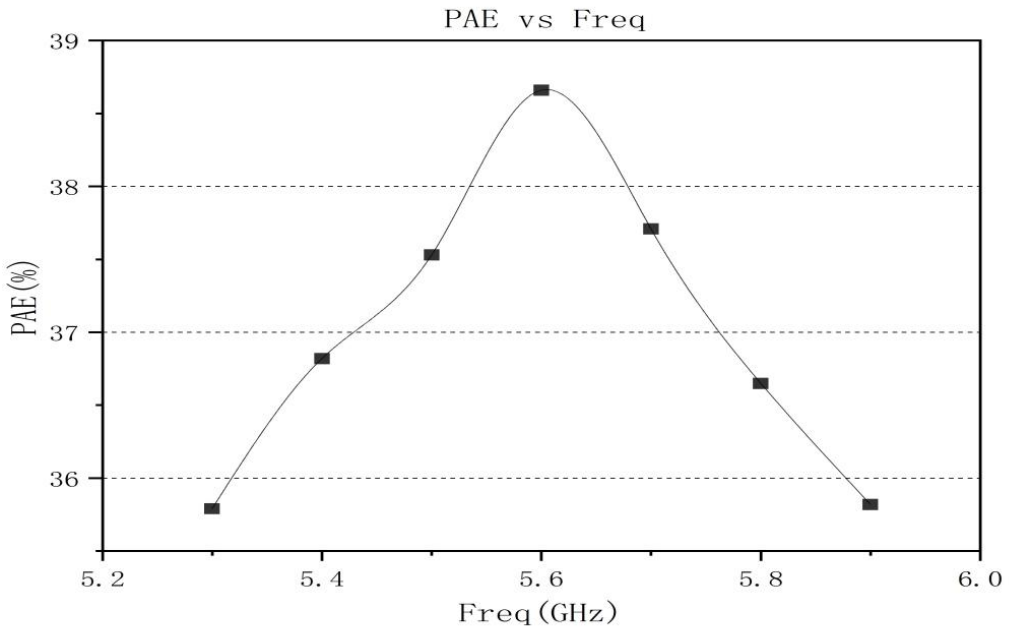
	Symbol	Value	Unit
Voltage between source and drain	V_{ds}	11	V
Voltage between gate and source	V_{gs}	-3	V
Storage Temperature Range	T_{stg}	-65 to +150	℃
Drain and Source Channel Temperature	T_{ch}	150	℃

Electrical Characteristics:

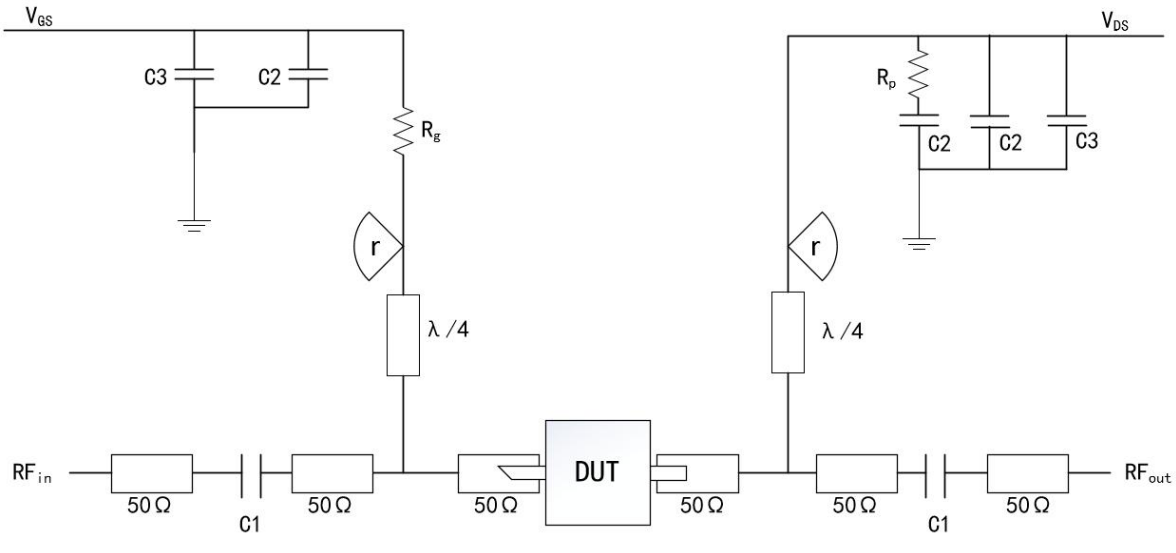
	Symbol	Test condition	Value			Unit
			Min	Typ	Max	
Drain Current	Idsr	Vds=10V CW. Pin: 37.5dBm Freq: 5.3~5.9GHz	-	9.8	-	A
Saturated output power	Psat		-	46	-	dBm
Gain	Gp		-	8.5	-	dB
Add-Efficiency	PAE		-	35	-	%
Gain Flatness	ΔG		-0.8	-	+0.8	dB

Typical Curve:





Application Circuit:



DUT：Device to be tested

C1:4.7pF

C2:1000pF

C3:100uF

Rp:51Ω

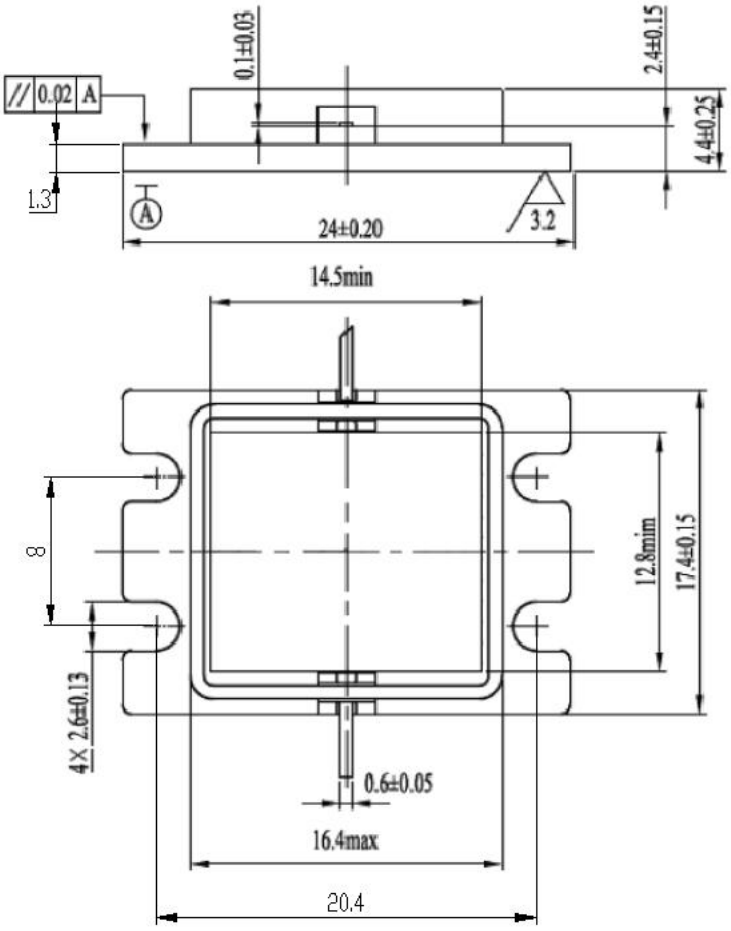
Rg:15Ω

r(radius)≈5.8mm(Rogers5880, 20mil)

ESD Level:

ESD	Class III	2000V

Outline:



Precautions for use:

- Pay attention to drying transportation and storage.
- Pay attention to anti-static during chip use and assembly，and wear grounding anti-static bracelet.
- When powering up，first apply grid power then add leakage.