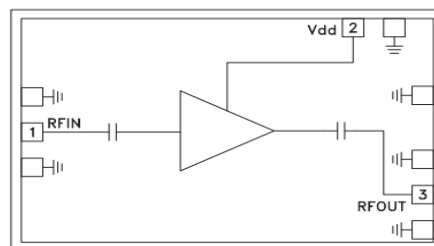


Performance Characteristics:

- Frequency band: 24~40GHz
- Noise factor: 2.5dB
- Gain: 20dB
- I/O return loss: 10dB
- Output P1dB: >1dBm
- Power Supply: +5V@35mA
- Chip size: 2.00mm x 1.00mm x 0.1mm

Functional Diagram**Product Description:**

CW369 is a GaAs MMIC wideband low noise amplifier chip that covers the frequency range from 24GHz to 40GHz and provides a typical gain of 20dB with a noise factor of 2.5dB. The physical chip is powered by a +5V single power supply.

Electrical parameters : ($T_A=25^{\circ}\text{C}$, $V_D=+5\text{V}$, $I_d=35\text{mA}$)

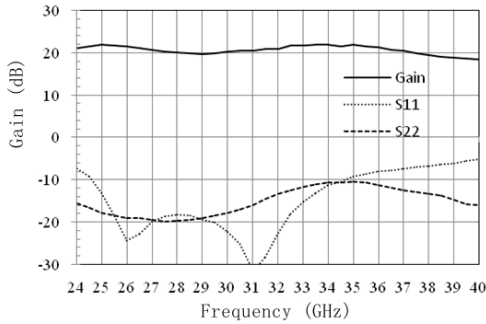
Indicators	Minimum	Typical value	Maximum value	Minimum	Typical value	Maximum value	Minimum	Typical value	Maximum value	Units
Frequency range	24-26			26-37			37-40			GHz
Gain	21	22	-	19.5	20	-	18	19	-	dB
Noise factor	-	2.5	2.9	-	2.3	2.5	-	3	4	dB
Input echo	8	10	-	-	10	-	7	8	-	dB
Output echo	12	15	-	10	15	-	12	12	-	dB
Output P-1	1	2	-	3	8	11	-	10	-	dBm
Working current	-	35	-	-	35	-	-	35	-	mA

Use limit parameters: (Exceeding any of the above maximum limits risks permanent damage.)

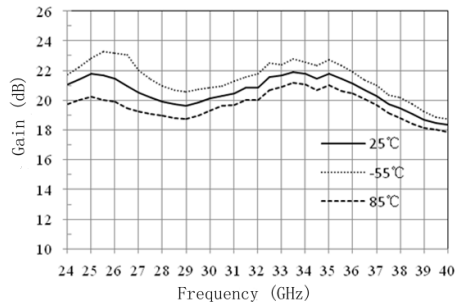
Maximum operating voltage	+5.5V
Maximum input power	5 dBm
Channel temperature	180°C
Storage temperature	-65°C-150°C
Service temperature	-55°C-125°C

Typical curve :

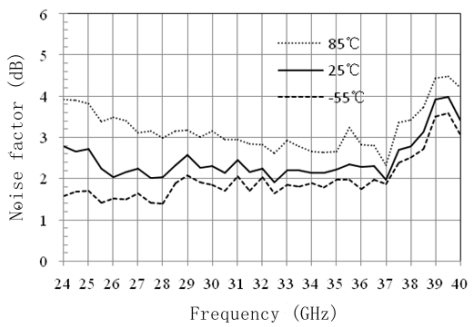
Gain/return loss (25°C)



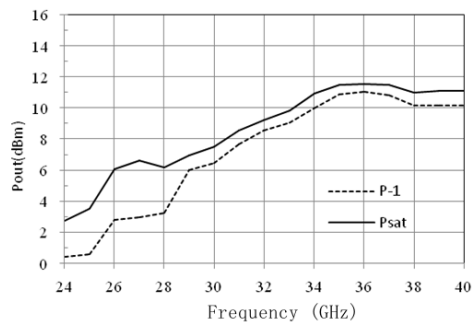
Gain Vs temperature



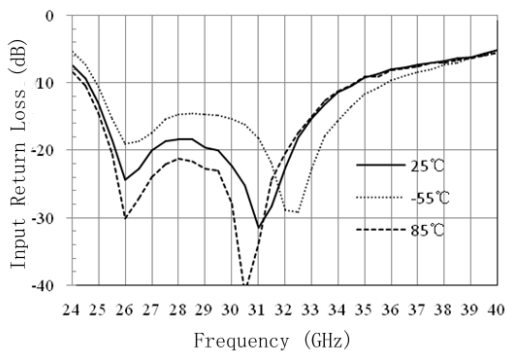
Noise factor Vs temperature



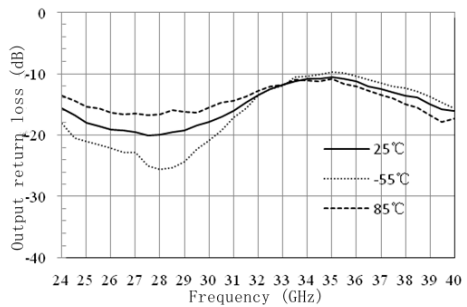
Output P-1dB/Psat (25°C)

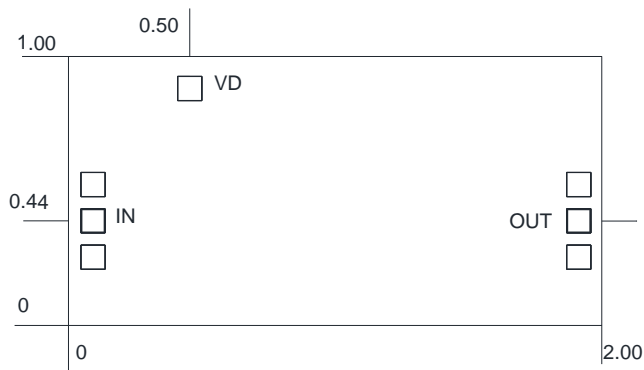
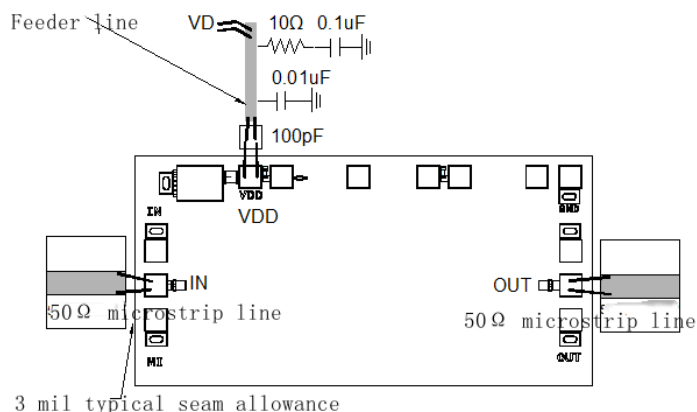


Input return loss Vs temperature



Output return loss Vs temperature



Size diagram : (unit mm)**Suggested assembly drawing:****Instructions:**

Note: I/O has straight capacitance

Storage: The chip must be placed in a container with electrostatic protection and stored in a nitrogen environment.

Cleaning treatment: The bare chip must be operated and used in a purified environment. It is forbidden to use liquid cleaning agent to clean the chip.

Electrostatic protection: Strictly comply with the ESD protection requirements to avoid electrostatic damage to the components.

General operation: Use vacuum chuck or precision pointed tweezers to pick up the chip. Avoid touching the surface of the chip with tools or fingers during handling.

Mounting operation: The chip can be installed using AuSn solder eutectic welding or conductive adhesive bonding process. The mounting surface must be clean and flat.

Bonding operation: Input and output with 2 (recommended diameter of 25um gold wire) bonding wire, bonding wire length less than 250um is optimal. It is recommended to use the smallest possible ultrasonic energy. Bonding begins at the pressure point on the chip and ends at the package (or substrate).