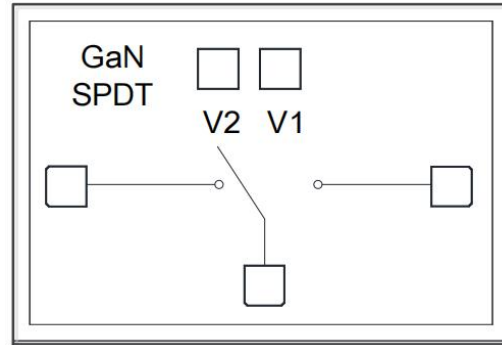


## Performance

- Frequency: 5~13GHz
- Insertion loss: 0.8dB
- Isolation: 40dB
- Input P-0.3: 49dBm
- Input/Output VSWR: 1.25:1
- Switching Time: 20ns
- Control Mode: 0/-40V
- Voltage control reflective switch
- Chip size: 1.65\*3.2\*0.08mm

## Function Diagram



## Electrical Specifications (Ta=+25°C, V1~V2=0V/-40V, F=5~13GHz)

| Symbol | Parameter           | Min. | Typ. | Max. | Unit |
|--------|---------------------|------|------|------|------|
| Li     | Insertion Loss      | -    | 0.8  | -    | dB   |
| ISO    | Isolation           | -    | 40   | -    | dB   |
| VSWR   | Input / Output VSWR | -    | 1.25 | -    | -    |

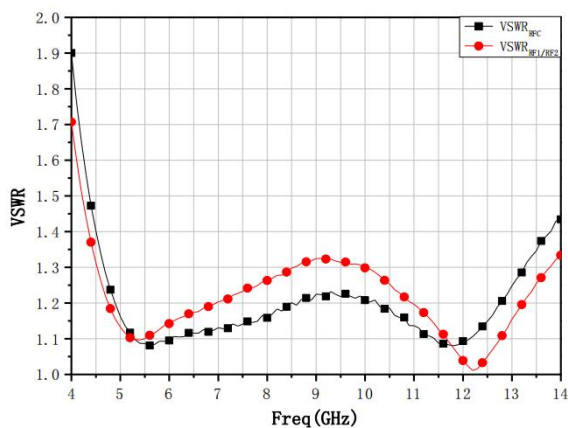
## Absolute Maximum Ratings (Ta=+25°C)

| Symbol | Parameter                   | Value     | Notes              |
|--------|-----------------------------|-----------|--------------------|
| V1,2   | Control Voltage             | -60V      |                    |
| Pcw    | Input Continuous Wave Power | 50dBm     |                    |
| Tch    | Channel Temperature         | 225°C     |                    |
| T      | Sintering Temperature       | 310°C     | 30s, N2 protection |
| Tstg   | Storage Temperature         | -65~150°C |                    |

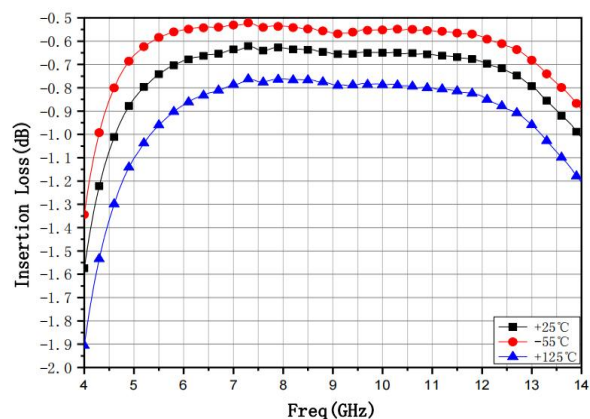
Exceed any of above listed ratings may cause permanent damage.

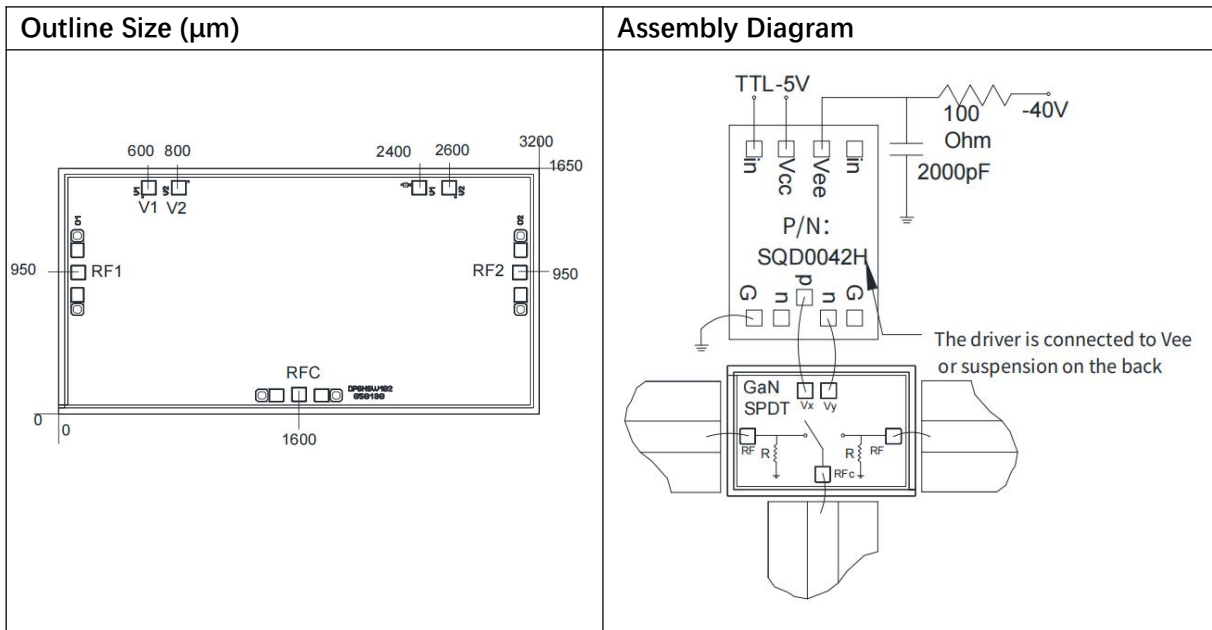
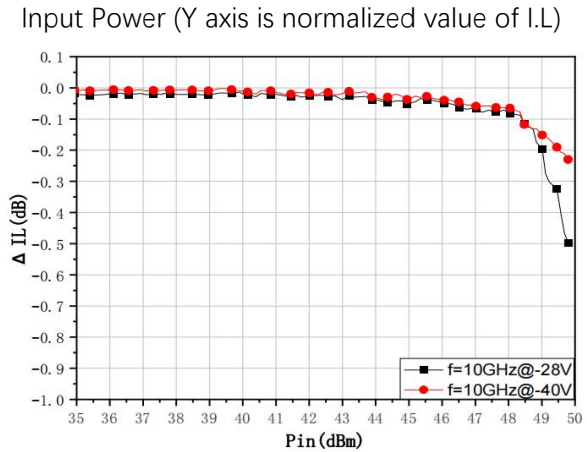
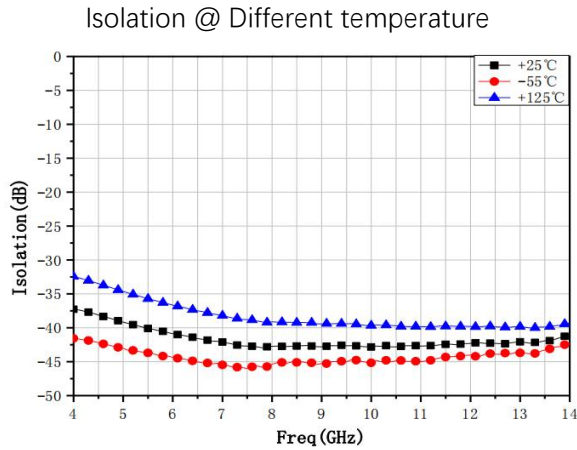
## Test Curves (Ta=+25°C, (V1,2=-40V))

VSWR



Insertion Loss @ Different temperature





Note: For same pads, choose any of them.

#### PIN Definition

| PIN     | Description                           |
|---------|---------------------------------------|
| RF1、RF2 | RF ports, 50Ω, no block capacitor     |
| RFc     | RF common ports, 50Ω, block capacitor |
| V1、V2   | Control Ports                         |
| GND     | Bottom must be grounded               |

#### Truth Table

| V1 | V2 | RFc→RF1 | RFc→RF2 |
|----|----|---------|---------|
| 0  | 1  | ON      | OFF     |
| 1  | 0  | OFF     | ON      |

Note: 1. Low level "0" is -28V~-40V, High level "1" is 0V~0.5V

2. Performance is same under condition of -28V ~ -40V

**Note**

- a) Use 80/20 gold tin for sintering, the sintering temperature should not exceed 300°C, and the sintering time should be as short as possible, not exceeding 30 seconds;
- b) The chip is an electrostatic sensitive device, and anti-static should be paid attention to during use, transportation and operation;
- c) Two bonding wires (gold wires with a diameter of 25  $\mu\text{m}$ ) are used for input and output, and the length of the bonding wire is about 300  $\mu\text{m}$  is the best;
- d) This product is a hydrogen sensitive device with a hydrogen resistance of 20000ppm. It is recommended to control the hydrogen concentration in the sealed cavity when using it.