

## SPECIFICATION FOR APPROVAL

**CUSTOMER'S APPROVAL CHOP**

Approval's condition: \_\_\_\_\_

Approved date: \_\_\_\_\_

KINDLY RETURN A SET WITH YOUR COMPANY'S OFFICIAL  
STAMP ON APPROVAL OF THIS ITEM

**CUSTOMER'S NAME:** \_\_\_\_\_

**CUSTOMER'S MODEL NO. :** \_\_\_\_\_

**CUSTOMER'S PART NO. :** \_\_\_\_\_

**DESCRIPTION:**

**Dielectric Filter**

**Semitel'S MODEL NO. :**

**SE4R4750B300\_10.2\_084**

**VERSION:**

**01**

**DATE:**

**2025/7/10**

**Attachments:**

- Product specification
- Sample Qty.:
- Test data

Prepared By	Checked By	Approved By
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## 1.FEATURES

- Small Size, Light weight
- SMT package soldering
- Ideal for Microwave telecommunication

## 2.SPECIFICATIONS

ELECTRICAL SPECIFICATIONS			
NO.	ITEM	SPEC	UNIT
1	Center Frequency [fo]	4750	MHz
2	Bandwidth [BW]	fo ±150 [4600~4900]	MHz
3	Insertion in BW	1.5 max.	dB
4	Ripple in BW	0.6 max.	dB
5	Return Loss in BW (S11, S22)	14.0 min.	dB
6	Attenuation [Absolute Value]	40 min. @ 1~2500 MHz	dB
		35 min. @ 2500~4000 MHz	dB
		14 min. @ 5050~5900 MHz	dB
7	In/Out Impedance	50	Ω
8	Input Power	2 avg/ 20 peak	W
9	Operation Temperature Range	-40°C to +105°C	

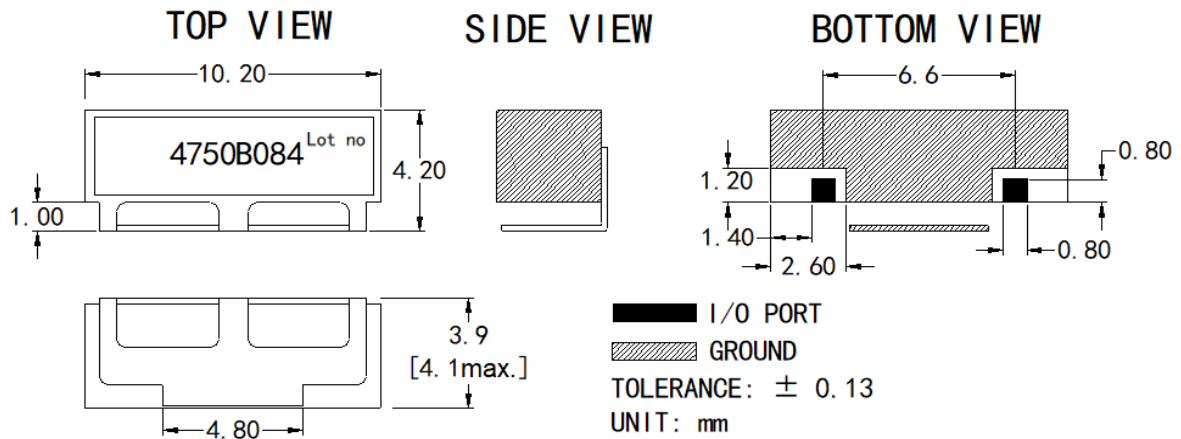
Semitel'S MODEL NO. :	SE4R4750B300_10.2_084	CUSTOMER'S MODEL NO.:	
VERSION :	01	CUSTOMER'S PART NO. :	
DATE :	2025/7/10		

### 3.OUTLINE DRAWING

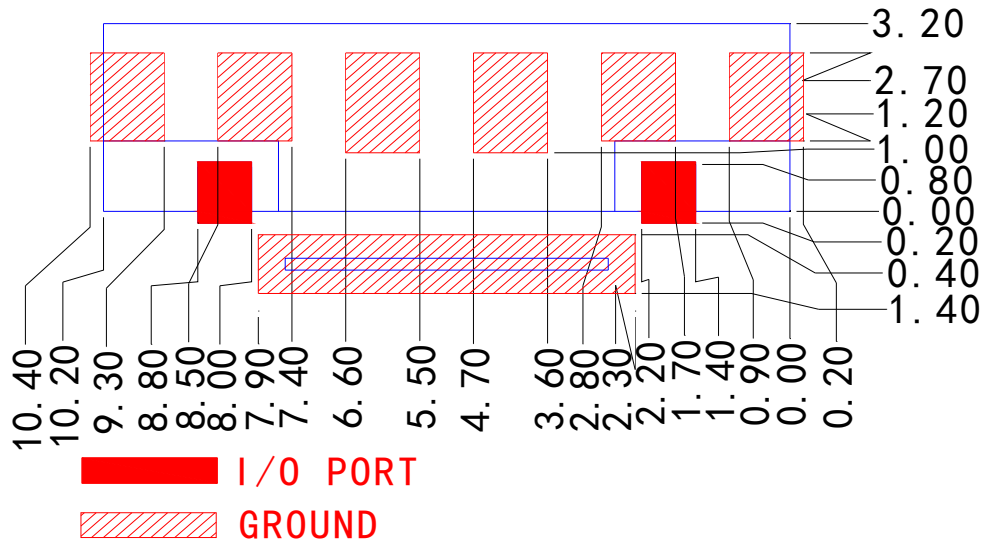
#### 3.1. Filter drawing

#### 3.2. SE4R4750B300\_10.2\_084

(marking showing 4750Bxxx, xxx=001~999 mean for project series code. )



### 4.RECOMMENDED PC BOARD PATTERN



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## 5.Environmental Test

### 5.1. Vibration Resist

The device should satisfy the electrical characteristics after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

### 5.2. Steady Damp Heat Test

The device should satisfy the electrical characteristics after exposed to the temperature  $40\pm 2^{\circ}\text{C}$  and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

### 5.3. High Temperature Storage

The device should satisfy the electrical characteristics after exposed to temperature  $85\pm 5^{\circ}\text{C}$  for  $96\pm 2$  hours and 1~2 hours recovery time under normal temperature.

### 5.4. Low Temperature Storage

The device should also satisfy the electrical characteristics after exposed to the temperature  $40^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for  $96\pm 2$  hours and to 2 hours recovery time under normal temperature.

### 5.5. Thermal Shock

The device should also satisfy the electrical characteristics after exposed to the low temperature  $-40^{\circ}\text{C}$  and high temperature  $+85^{\circ}\text{C}$  for  $30\pm 2$  min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

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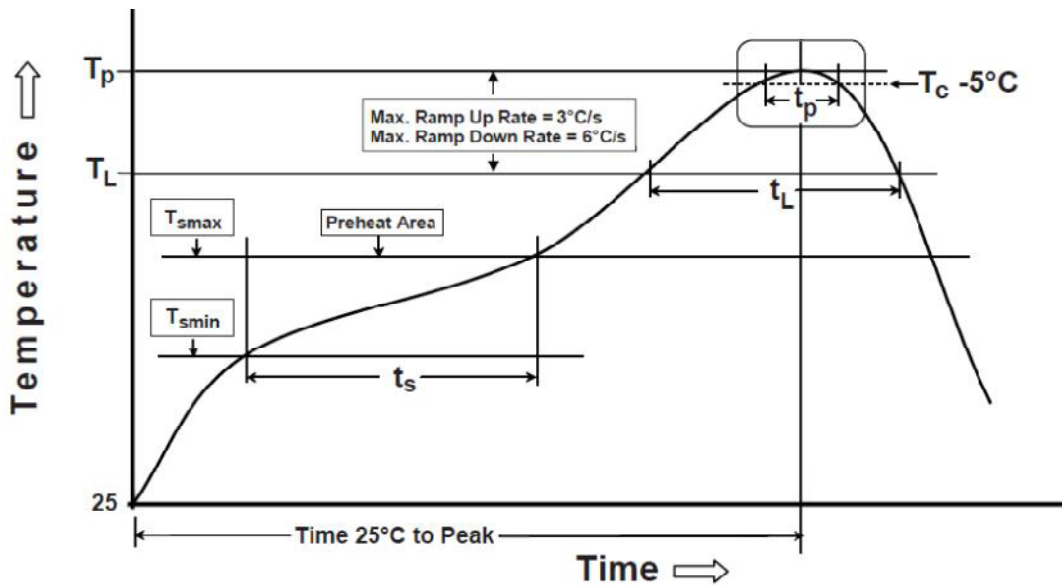
## 6.NOTICE

6.1. RoHS 2.0

6.2. MSL-1

6.3. Reflow temperature recommendation

Profile feature		Pb-Free Assembly(SnAgCu)
PREHEAT	Temperature Min(Tsmin)	150°C
	Temperature Max(Tsmax)	200°C
	Time(ts) (from Tsmin to Tsmax)	60-120 seconds
RAMP-UP	Ramp-up rate (TL to TP)	3 °C/second max.
REFLOW	Liquidus Temperature(TL)	217°C
	Total Time maintained above TL (t L)	30-100 seconds
PEAK	Temperature(TP)	250°C
	Time (tp)	25 seconds
RAMP-DOWN	Ramp-down rate (TP to TL)	6 °C / second max.
Time (from 25°C to Peak Temperature) 25°C		8 minutes max.



This product may not be used in the following environments:

- 1.Ambient air containing corrosive gas and volatile or combustible gas.
- 2.In liquid and in environments with a high concentration of airborne particles.

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