

# LTCC 高通滤波器 (High Pass Filter)

HT-HFCN-9700+

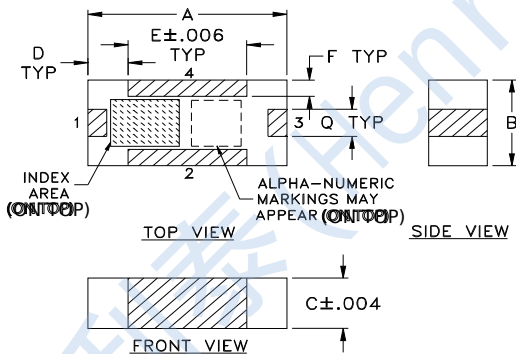
## Features

- Low cost
- Small size
- 7 sections
- Temperature stable
- LTCC construction
- Excellent power handling, 7W
- Hermetically sealed

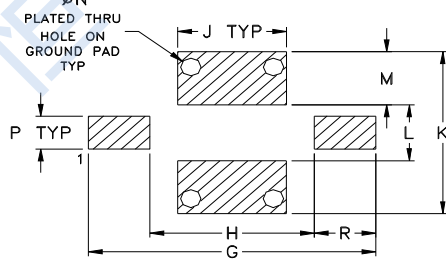
## Applications

- Sub-harmonic rejection
- Transmitters/receivers
- Lab use

## Outline Drawing



## PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±.002

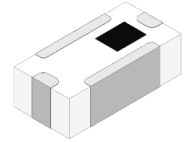
## Outline Dimensions

| A    | B    | C    | D    | E    | F    | G    | H    | J    |
|------|------|------|------|------|------|------|------|------|
| .126 | .063 | .037 | .026 | .075 | .012 | .182 | .104 | .069 |
| 3.20 | 1.60 | 0.94 | 0.66 | 1.91 | 0.30 | 4.62 | 2.64 | 1.75 |

| K    | L    | M    | N    | P    | Q    | R    | wt    |
|------|------|------|------|------|------|------|-------|
| .119 | .041 | .039 | .013 | .024 | .020 | .039 | grams |
| 3.02 | 1.04 | 0.99 | 0.33 | 0.61 | 0.51 | 0.99 | .020  |

## Functional Schematic



50  $\Omega$   
9700MHz to 16980MHz

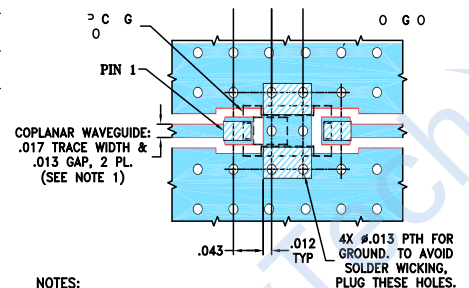
## Electrical Specifications(1,2) at 25°C

| Parameter      | F#    | Frequency (MHz) | Min. | Typ. | Max. | Units |
|----------------|-------|-----------------|------|------|------|-------|
| Rejection Loss | DC-F1 | DC - 6770       | 25   | 32   | —    | dB    |
|                | F1-F2 | DC - 7550       | 18   | 27   | —    | dB    |
|                | F3    | 9070            | —    | 3.0  | —    | dB    |
|                | DC-F2 | DC - 7550       | —    | 20   | —    | :1    |
| Insertion Loss | F4-F7 | 9700 - 16980    | —    | 1.0  | 3.0  | dB    |
|                | F5-F6 | 11460 - 16570   | —    | 0.8  | 2.0  | dB    |
|                | F4-F7 | 9700 - 16980    | —    | 1.8  | —    | :1    |

## Pad Connections

|        |     |
|--------|-----|
| RF IN  | 1   |
| RF OUT | 3   |
| GROUND | 2,4 |

## Suggested PCB Layout



### NOTES:

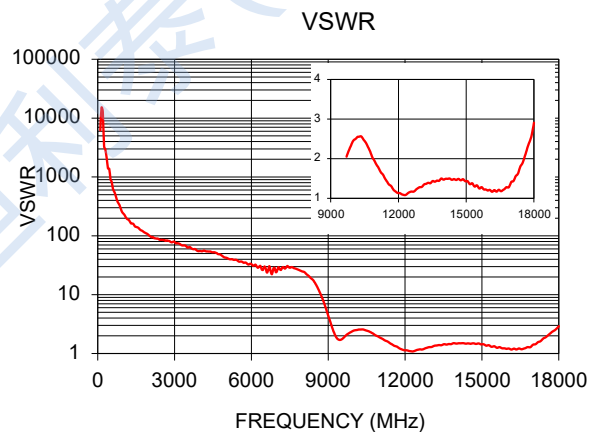
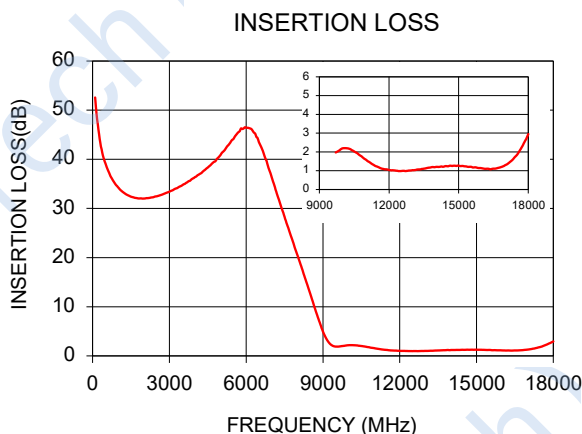
- TRACE WIDTH AND GAP ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010" ± .001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
- BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
  - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Maximum Ratings

|                       |                 |
|-----------------------|-----------------|
| Operating Temperature | -55°C to +100°C |
| Storage Temperature   | -55°C to +100°C |
| RF Power Input*       | 7W max at 25°C  |

\*Permanent damage may occur if any of these limits are exceeded.

## Typical Performance Data at 25°C



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