

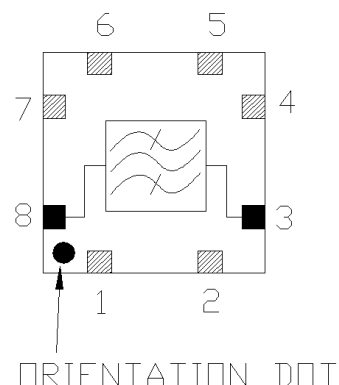
## Features

- 75 Ohm
- SMT unit
- RoHS\* Compliant
- Pb Free

## Description

- MAFL-010256-CB0AD0 is a surface mount Band-Pass Filter unit designed for MoCA applications.

## Functional Schematic



## Pin Configuration

| Function       | Pin Number  |
|----------------|-------------|
| Input Port     | 8           |
| Band-Pass Port | 3           |
| Ground         | 1, 2, 4 - 7 |
| Not connected  | -           |

## Ordering Information

| Part Number        | Package                   |
|--------------------|---------------------------|
| MAFL-010256-CB0AD0 | 500pcs Reel               |
| MAFL-010256-CB0ATB | Customer Evaluation Board |

**MoCA Band Pass Filter**  
**1125 - 1550 MHz**

Rev. V2

**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$** 

| Parameter                                 | Unit | Typ  | Min | Max |
|-------------------------------------------|------|------|-----|-----|
| Insertion Loss<br>1125 - 1550 MHz         | dB   | 1.7  | -   | 2.0 |
| Stopband Rejection<br>5 - 300 MHz         | dB   | 53   | 50  | -   |
| 300 - 800 MHz                             | dB   | 44   | 40  | -   |
| 800 - 1002 MHz                            | dB   | 40   | 38  | -   |
| 2250 - 3000 MHz                           | dB   | 35   | 33  | -   |
| Input Port Return Loss<br>1125 - 1200 MHz | dB   | 12.5 | 11  | -   |
| 1200 - 1550 MHz                           | dB   | 11   | 10  | -   |

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

**Recommended Maximum Ratings<sup>1 2</sup>**

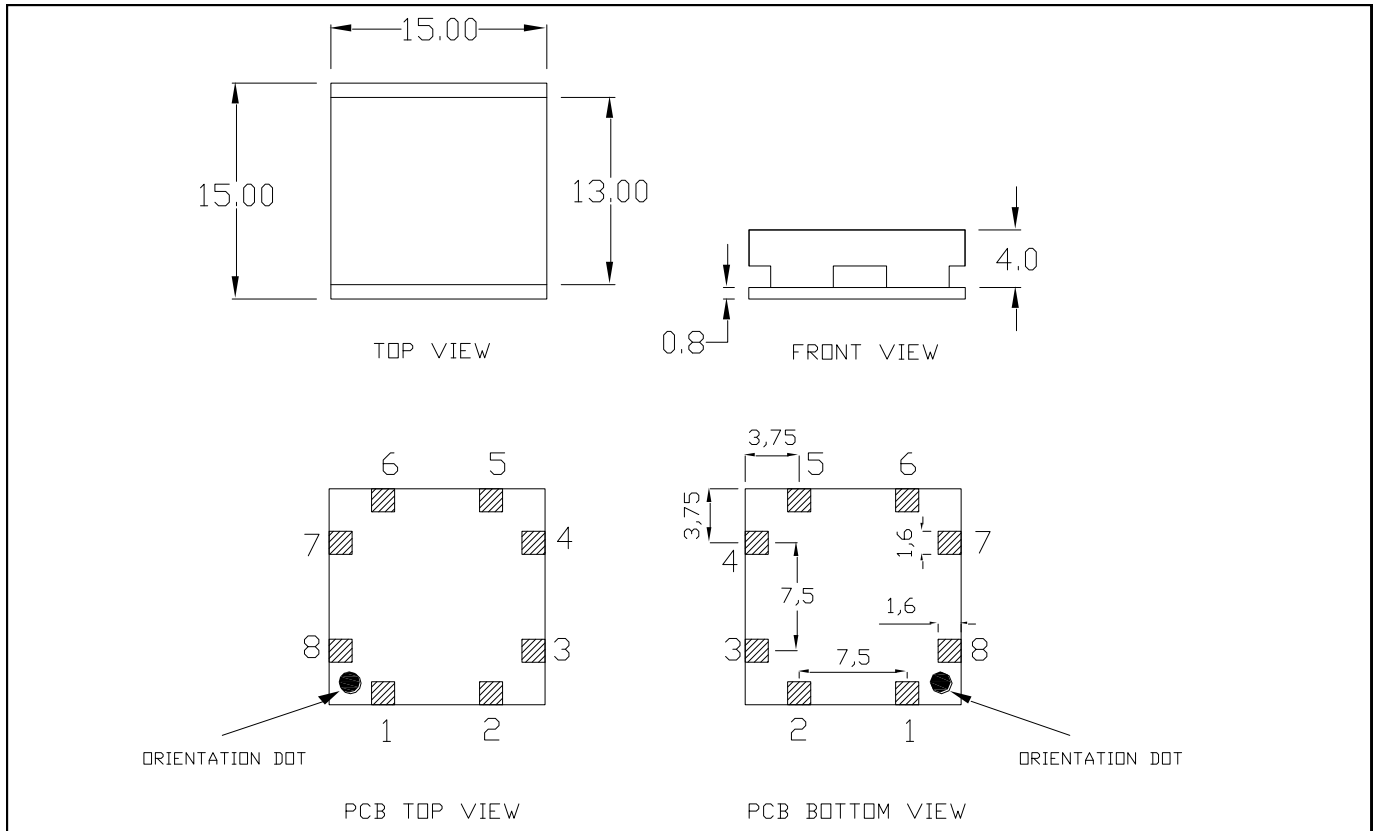
| Parameter             | Value          |
|-----------------------|----------------|
| Storage Temperature   | -40°C to +85°C |
| Operating Temperature | -40°C to +85°C |
| DC Current            | 30mA           |
| RF Power              | 250mW          |

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

## MoCA Band Pass Filter 1125 - 1550 MHz

Rev. V2

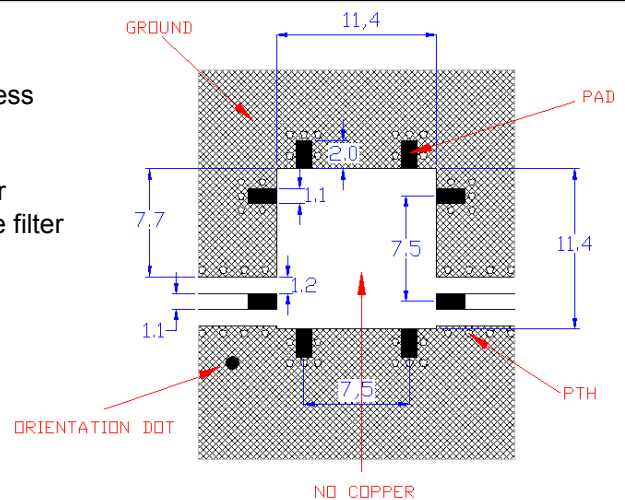
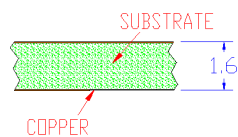
### Outline Drawing: SM-173



\* Dimensions are millimeters  $\pm 0.2$  unless otherwise specified., Drawing not to scale.

### Recommended PCB Configuration

- Track dimension = 1.1mm
- Gap dimension = 1.2mm
- It is not recommended to run tracks under the filter unless they are greater than 1.6mm below the base.
- Ground should be 1.6mm below the base of the filter
- Area directly under the filter should be free from copper
- RF shield should be kept a minimum of 6mm above the filter



3 \* Dimensions are millimeters  $\pm 0.1$  unless otherwise specified.

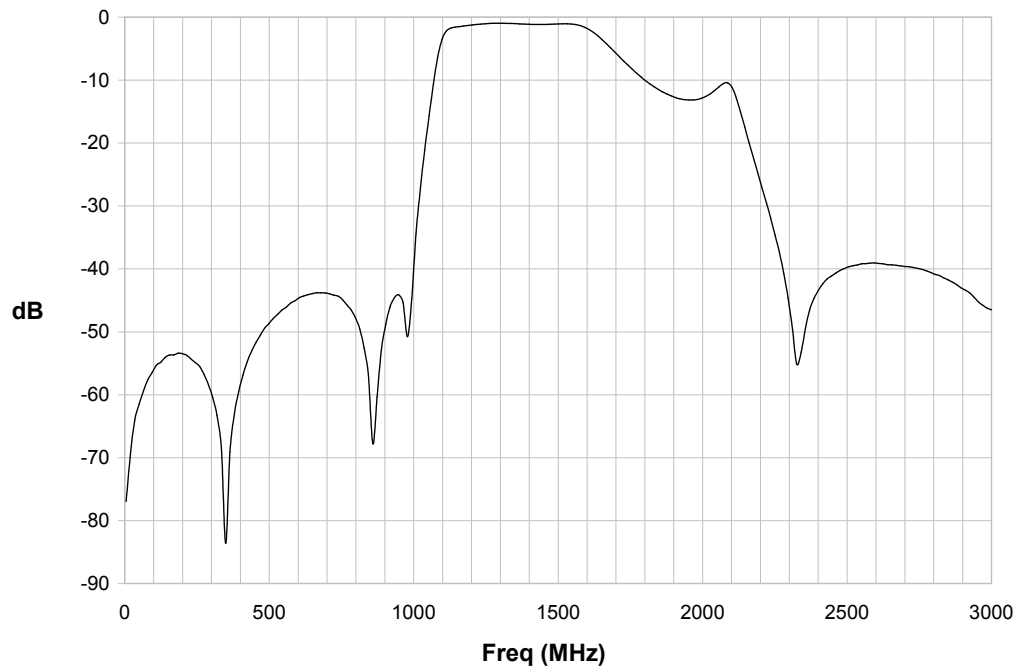
M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

## MoCA Band Pass Filter 1125 - 1550 MHz

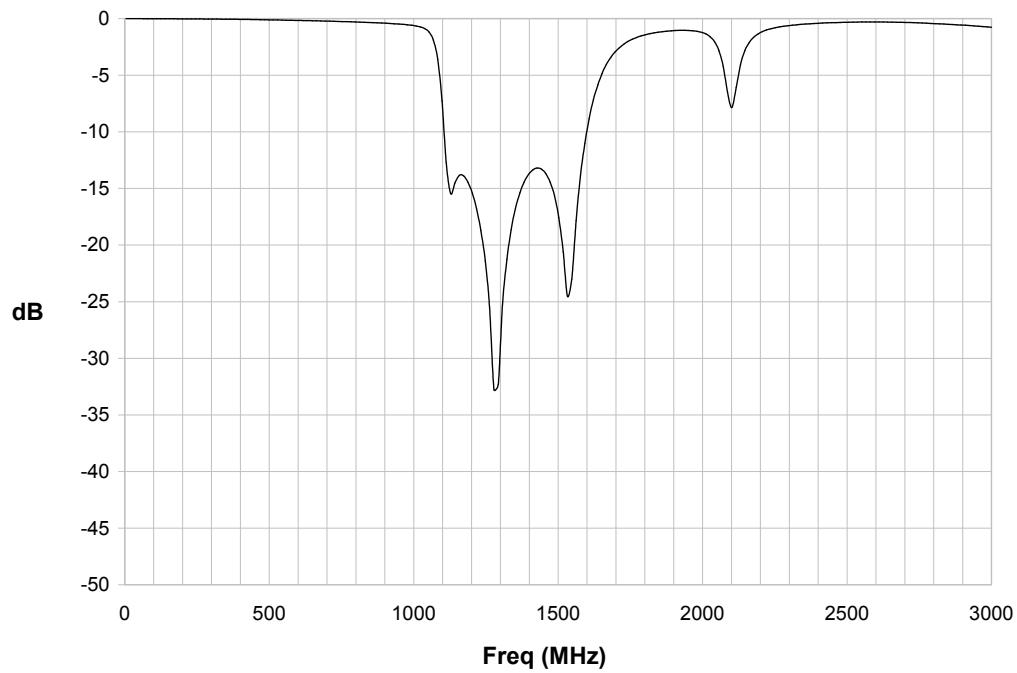
Rev. V2

### Typical Performance Curves at +25°C

#### Insertion Loss

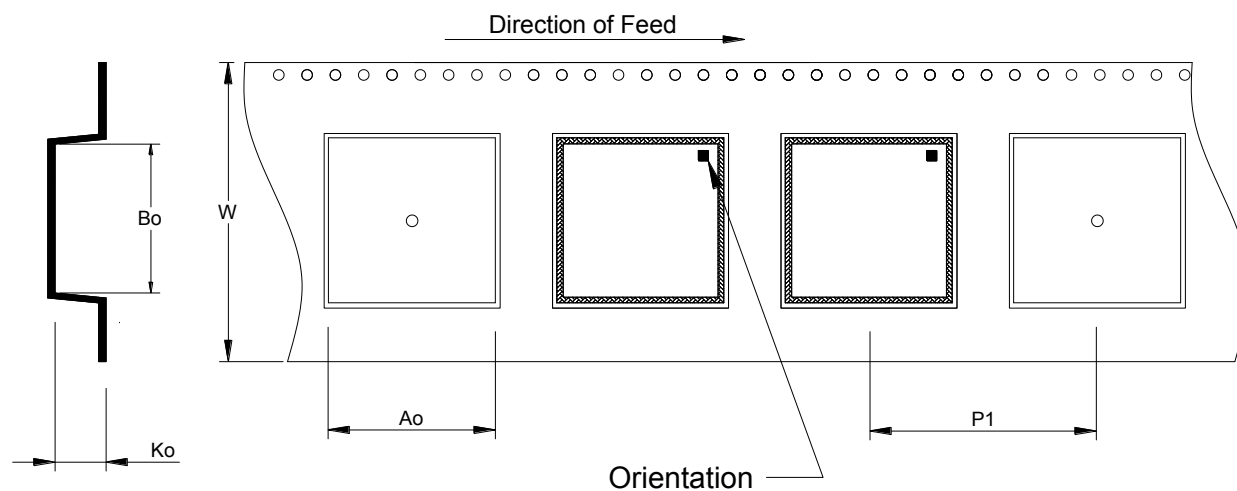


#### Return Loss



**MoCA Band Pass Filter**  
**1125 - 1550 MHz**

Rev. V2



| Item | Dimension         |
|------|-------------------|
| Ao   | 15.40mm +/- 0.1mm |
| Bo   | 15.40mm +/- 0.1mm |
| Ko   | 5.40mm +/- 0.1mm  |
| W    | 32.00mm +/- 0.3mm |
| P1   | 20.00mm +/- 0.1mm |