

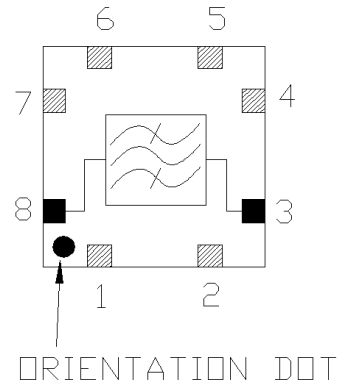
### Features

- 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

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

Parameter	Unit	Typ	Min	Max
Insertion Loss 1125 - 1550 MHz	dB	1.7	-	2.0
Stopband Rejection 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 1125 - 1200 MHz	dB	12.5	11	-
1200 - 1550 MHz	dB	11	10	-

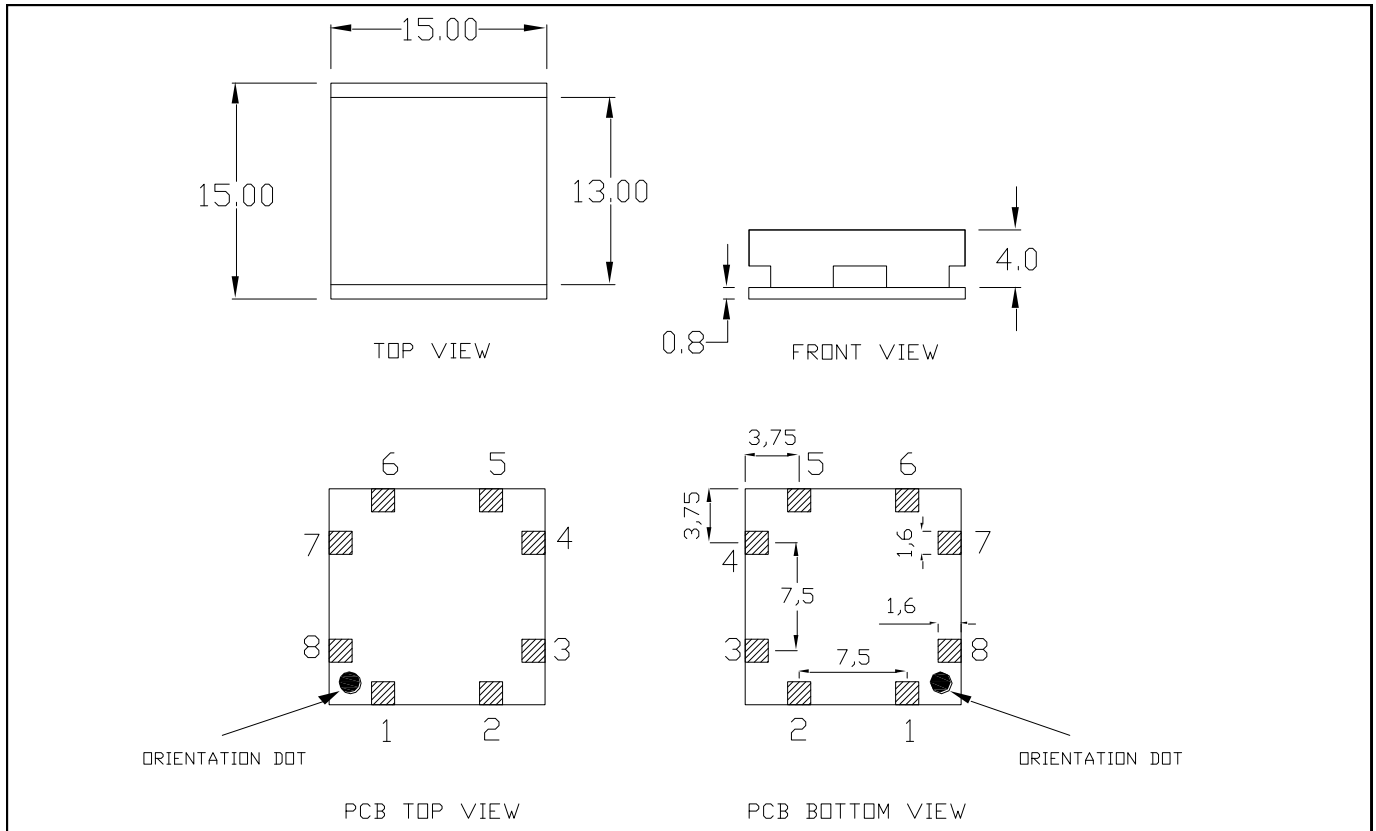
\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

**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.

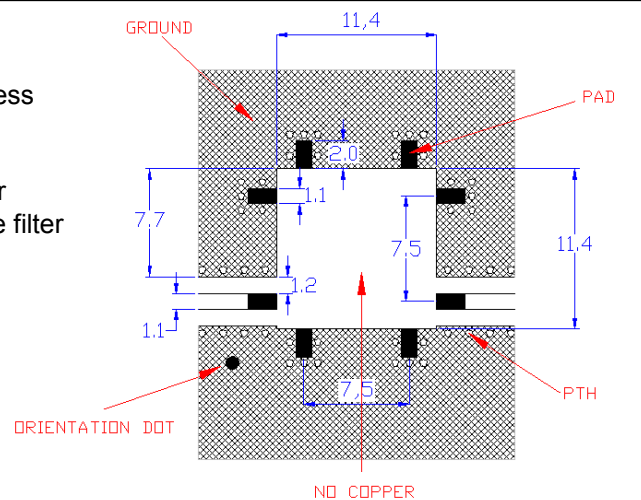
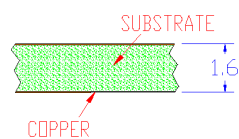
## Outline Drawing: SM-173



\* 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

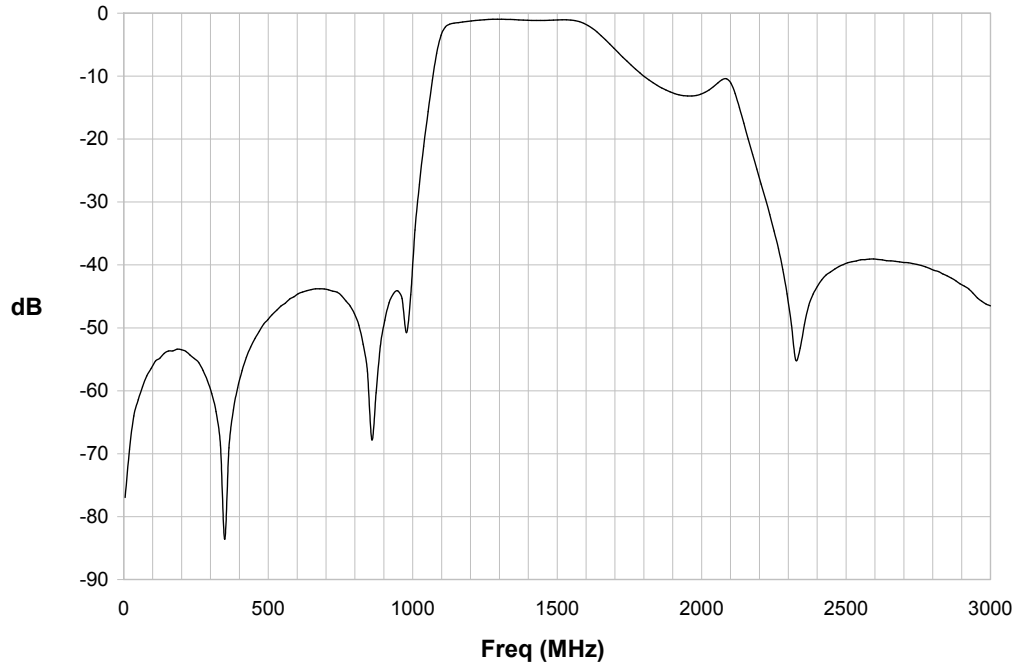


3 \* Dimensions are millimeters  $\pm 0.1$  unless otherwise specified.

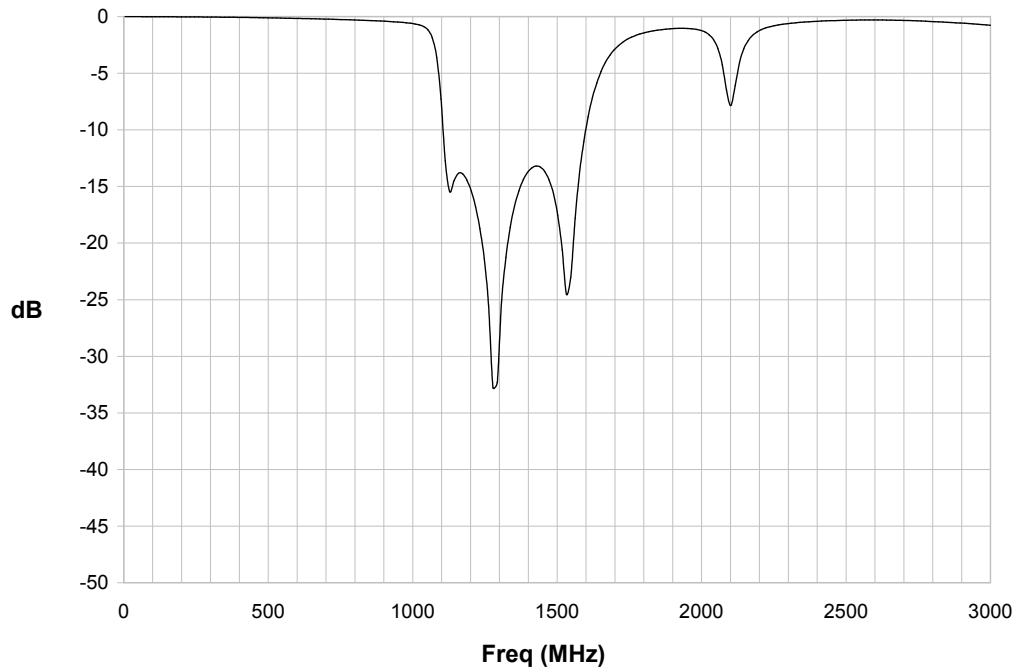
M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

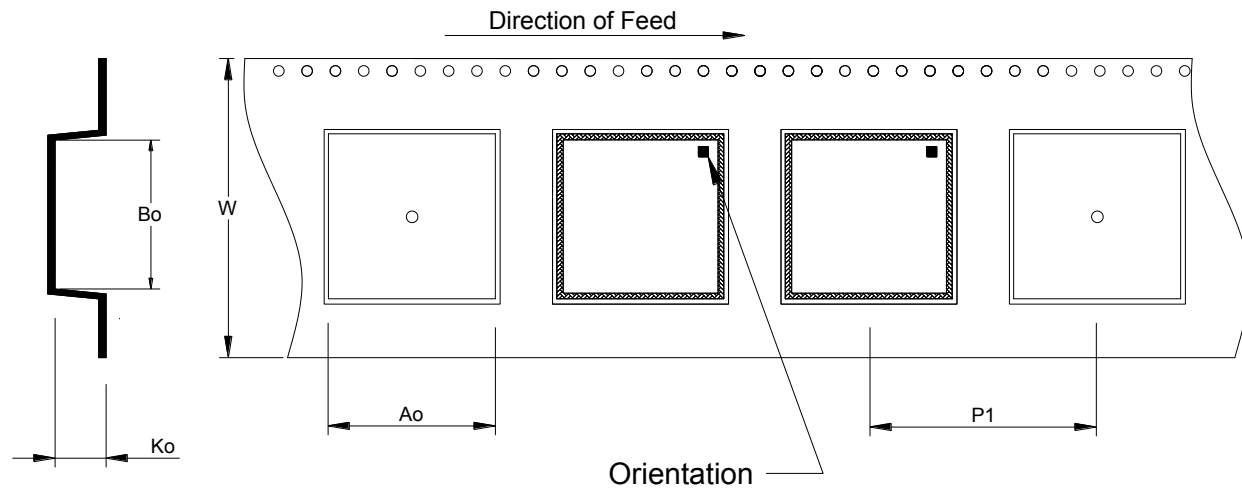
## Typical Performance Curves at +25°C

### Insertion Loss



### Return Loss





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