

## Features

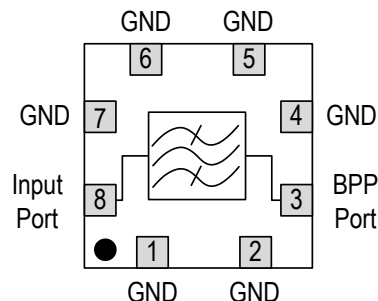
- 75  $\Omega$
- Surface Mount Technology
- RoHS\* Compliant

## Description

The MAFL-010101-CB0AD0 is a surface mount band-pass filter unit designed for MoCA applications.



## Functional Schematic



## Pin Configuration

Pin #	Function	Pin #	Function
1, 2, 4 - 7	Ground	8	Input Port
3	Band-Pass Port		

## Electrical Specifications: $T_A = 25^\circ\text{C}$ , $P_{IN} = 0 \text{ dBm}$ , $Z_0 = 75 \Omega$

Parameter	Test Conditions Frequency (MHz)	Units	Min	Typ	Max
Insertion Loss	1125 - 1550	dB	1.7	—	2.0
Stop band Rejection	5 - 800	dB	43	40	—
	800 - 1002		40	37	
	2250 - 2400		33	30	
	2400 - 2600		36	18	
	2600 - 3000		36	10	
Input Port Return Loss	1125 - 1200	dB	14	12	—
	1200 - 1550		13	11	

## Ordering Information

Part Number	Package
MAFL-010101-CB0AD0	500 piece reel
MAFL-010101-CB0ATB	customer evaluation board

## Absolute Maximum Ratings<sup>1,2</sup>

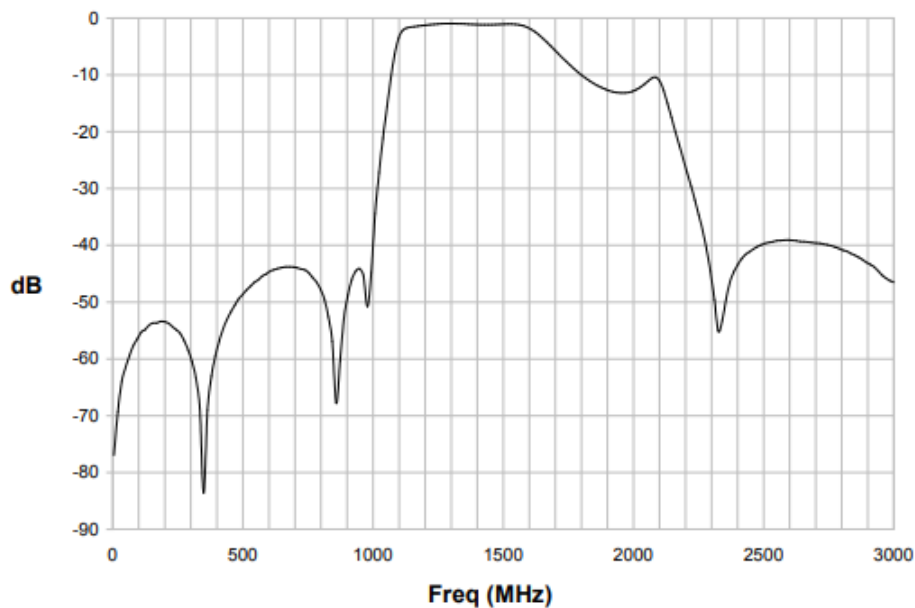
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating & Storage Temperature	-40°C to +85°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

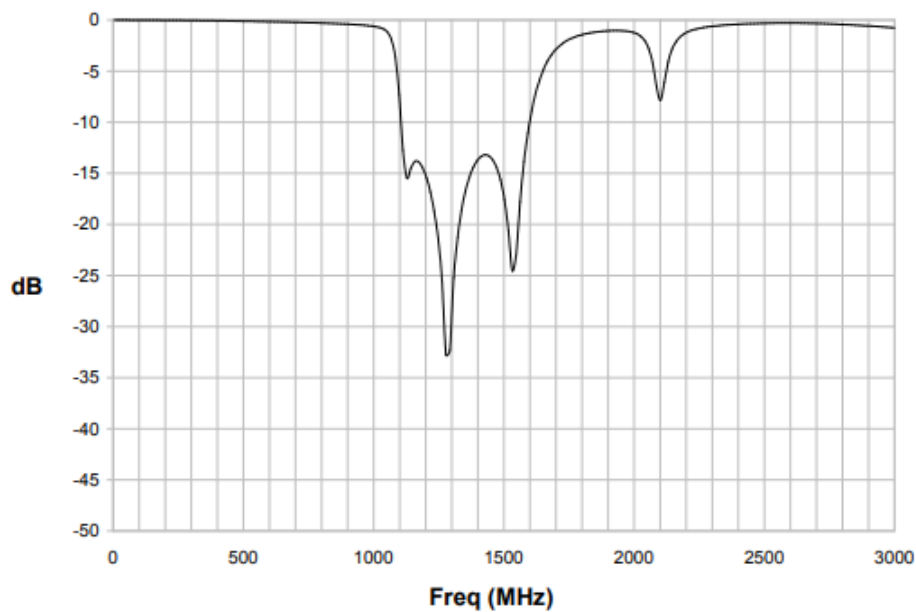
<sup>1</sup> \* Restrictions on Hazardous Substances, compliant to current RoHS EU directive.

## Typical Performance Curves

### Insertion Loss

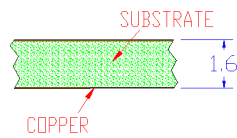


### Return Loss

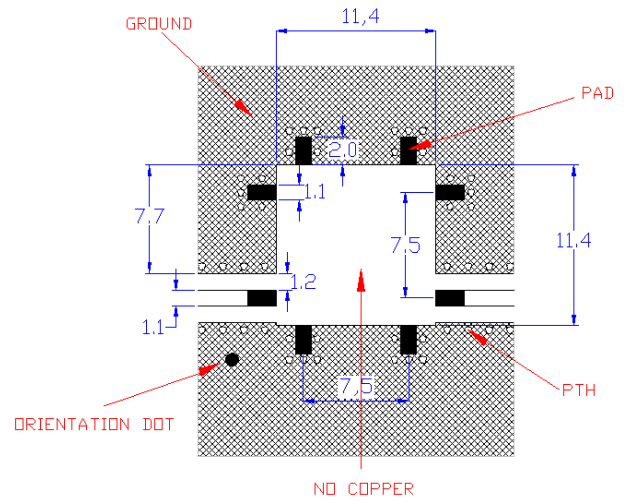


## Recommended PCB Configuration

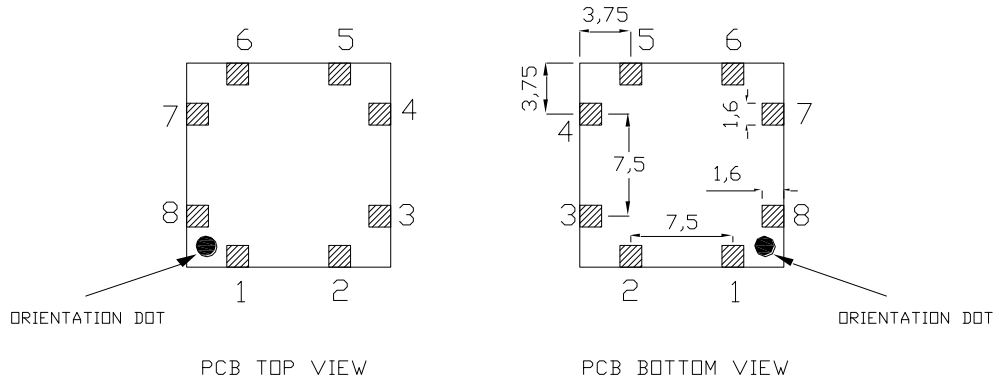
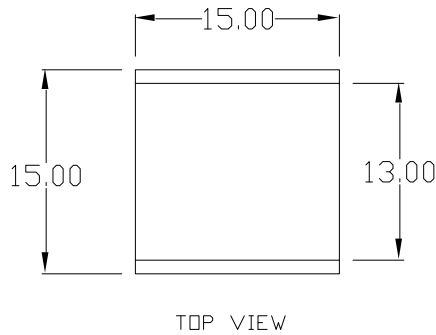
- Track dimension = 1.1 mm
- Gap dimension = 1.2 mm
- It is not recommended to run tracks under the filter unless they are greater than 1.6 mm below the base.
- Ground should be 1.6 mm below the base of the filter
- Area directly under the filter should be free from copper
- RF shield should be kept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



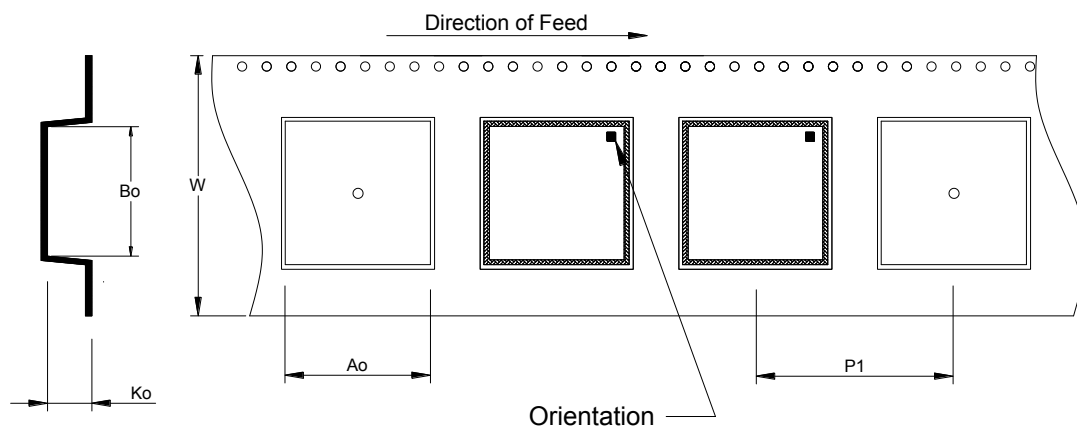
Dimensions in mm. Tolerance: .x ± 0.1, unless otherwise specified



## Component Dimensions (SM-173)



## Tape & Reel Information



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

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