# *Amorphous Bead for Noise Suppression Devices*

The amorphous noise suppression devices, amorphous bead suppress rapid changes in current which could otherwise lead to electrical noise in many circuits. Unlike other noise reduction methods which absorb noise after it is created, amorphous noise suppression devices suppress the source of the noise Because of their square-shaped magnetic hysteresis behavior, amorphous noise suppression devices have a very large inductance when the current crosses zero (i.e. changes sign).This large inductance effectively blocks any further current changes During normal current flow amorphous noise suppression devices have very low inductance The reverse recovery phenomenon in semiconductor switching devices occurs when the current switches off. This phenomenon can lead to noise in the circuit amorphous noise suppression devices effectively and efficiently decrease the noise caused by the reverse recovery current.

## Function

Noise suppression, Though effective control of the diode recovery current, switching noise due to the diode is very small. Protection of Semiconductors, The high inductance of amorphous noise suppression devices, brought about by rapid change of current through zero, suppresses potentially damaging voltage/current spikes.

## Prevention of ringing

Amorphous noise suppression devices suppress voltage/current spikes which couple with the parasitic in the circuit to produce ringing.

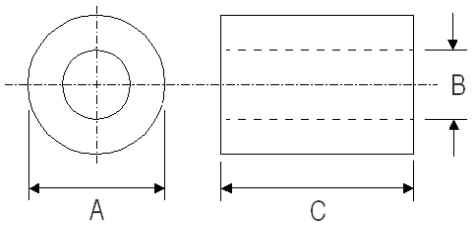
## Features

◎ Low Noise, When placed in series with diodes, amorphous noise suppression devices more effectively suppress noise generating reverse recovery current changes than other methods.
◎ Low Loss, Amorphous noise suppression devices have low hysteresis loss and almost no resistive loss. Typically, the loss is lower than conventional RC snubbers at high frequency.
◎ Space Saving, Amorphous bead can be mounted directly onto the leads of semiconductors, utilizing no additional circuit board space.

## Applications

◎ Switching Power Supplies
◎ DC to DC converters
◎ Control circuit of motors
◎ AC adapters
◎ Semiconductor switching circuit
◎ Small common mode filters

## Dimensions and footprint (Unit：mm)




Unit : mm

| Size | A | B | C |
|---|---|---|---|
| MAB-402020 | 4.00 Max | 1.50 Min | 2.00 Max |
| MAB-402030 | 4.00 Max | 1.50 Min | 3.00 Max |
| MAB-402045 | 4.00 Max | 1.50 Min | 4.50 Max |
| MAB-402060 | 4.00 Max | 1.50 Min | 6.00 Max |
| MAB-402080 | 4.00 Max | 1.50 Min | 8.00 Max |

## Part Number Code

MAB - 402020

1 2

1、Series Name

2、Size Code：the core O.D digitals, the core I.D digitals, the core H.T digitals

## Specification

| Part No. | Total Fluxψc[μ Wb] | $A_L$ value (μH) | Insulating Cover |
|---|---|---|---|
| MAB-402020 | 1.56 min | 3.90 min | Black |
| MAB-402030 | 3.14 min | 7.30 min | Black |
| MAB-302060 | 3.05 min | 10.10 min | Black |
| MAB-402045 | 3.12 min | 12.60 min | Black |
| MAB-402060 | 3.35 min | 12.60 min | Black |
| MAB-402080 | 6.16 min | 14.30 min | Black |

Measuring Condition ＊Total Flux：50KHz, 80A/m RT＊AL：50KHz, 0.1V, 1Turn, RY