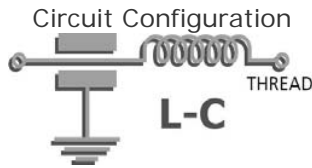


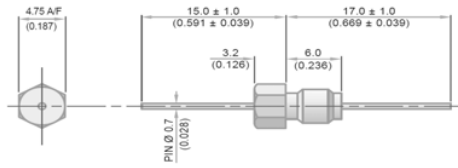
# Filter Type SFBL

## Feedthrough EMI Filter Datasheet

(M4 Thread : 4.75mm Hexagonal Head)



Dimensions mm (inches)



M4 x 0.7 – 6g Thread

| Electrical Details           |   |
|------------------------------|---|
| Electrical Configuration     | L-C Filter  |
| Capacitance Measurement      | @ 1000hr Point  |
| Current Rating               | 10A   |
| Insulation Resistance (IR)   | 10GΩ or 1000ΩF  |
| Temperature Rating           | -55°C to +125°C   |
| Ferrite Inductance (Typical) | 50nH  |
| Mechanical Details           |   |
| Head A/F                     | 4.75mm (0.187")   |
| Nut A/F                      | 6mm (0.236")  |
| Washer Diameter              | 8mm (0.315")  |
| Mounting Torque              | 0.5Nm (4.42lbf in) max. if using nut<br>0.25Nm (2.21lbf in) max. into tapped hole |
| Mounting Hole Diameter       | 4.2mm ± 0.1 (0.165" ± 0.004")   |
| Max. Panel Thickness         | 2.9mm (0.114")  |
| Weight (Typical)             | 1.2g (0.04oz)   |
| Finish                       | Silver plate on copper undercoat  |

| Product Code   | Hardware   | Capacitance<br>±20% UOS | Dielectric | Rated Voltage<br>(dc) | DWV<br>(dc) | Typical Insertion Loss (db) |        |      |       |        |      |
|----------------|--|-------------------------|------------|-----------------------|-------------|-----------------------------|--------|------|-------|--------|------|
|                |  |                         |            |                       |             | 0.01MHz                     | 0.1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| *SFBL5000100ZC | 0 = No hardware supplied<br>1 = supplied with standard nut and wavy washer<br>Other options available – please contact factory | 10pF -20% / +80%        | C0G        | 500                   | 750         |                             |        |      |       |        | 6    |
| SFBL5000150ZC  |  | 15pF -20% / +80%        | C0G        | 500                   | 750         |                             |        |      |       |        | 9    |
| SFBL5000220ZC  |  | 22pF -20% / +80%        | C0G        | 500                   | 750         |                             |        |      |       |        | 12   |
| SFBL5000330ZC  |  | 33pF -20% / +80%        | C0G        | 500                   | 750         |                             |        |      |       | 1      | 15   |
| *SFBL5000470ZC |  | 47pF -20% / +80%        | C0G        | 500                   | 750         |                             |        |      |       | 2      | 19   |
| *SFBL5000680MC |  | 68pF                    | C0G        | 500                   | 750         |                             |        |      |       | 4      | 20   |
| *SFBL5000101MC |  | 100pF                   | C0G        | 500                   | 750         |                             |        |      |       | 7      | 24   |
| SFBL5000151MC  |  | 150pF                   | C0G        | 500                   | 750         |                             |        |      |       | 10     | 27   |
| *SFBL5000221MC |  | 220pF                   | C0G        | 500                   | 750         |                             |        |      |       | 12     | 30   |
| *SFBL5000331MC |  | 330pF                   | C0G        | 500                   | 750         |                             |        |      | 1     | 16     | 34   |
| *SFBL5000471MX |  | 470pF                   | †X7R       | 500                   | 750         |                             |        |      | 2     | 19     | 38   |
| SFBL5000681MX  |  | 680pF                   | †X7R       | 500                   | 750         |                             |        |      | 3     | 22     | 41   |
| *SFBL5000102MX |  | 1.0nF                   | X7R        | 500                   | 750         |                             |        |      | 6     | 25     | 44   |
| SFBL5000152MX  |  | 1.5nF                   | X7R        | 500                   | 750         |                             |        |      | 9     | 29     | 48   |
| *SFBL5000222MX |  | 2.2nF                   | X7R        | 500                   | 750         |                             |        |      | 12    | 31     | 51   |
| SFBL5000332MX  |  | 3.3nF                   | X7R        | 500                   | 750         |                             |        |      | 15    | 35     | 54   |
| *SFBL5000472MX |  | 4.7nF                   | X7R        | 500                   | 750         |                             |        | 1    | 18    | 39     | 57   |
| SFBL5000682MX  |  | 6.8nF                   | X7R        | 500                   | 750         |                             |        | 2    | 21    | 41     | 60   |
| *SFBL5000103MX |  | 10nF                    | X7R        | 500                   | 750         |                             |        | 4    | 23    | 43     | 63   |
| *SFBL5000153MX |  | 15nF                    | X7R        | 500                   | 750         |                             |        | 7    | 27    | 46     | 66   |
| *SFBL5000223MX |  | 22nF                    | X7R        | 500                   | 750         |                             |        | 10   | 30    | 48     | 68   |
| SFBL5000333MX  |  | 33nF                    | X7R        | 500                   | 750         |                             |        | 13   | 34    | 50     | 70   |
| *SFBL2000473MX |  | 47nF                    | X7R        | 200                   | 500         |                             | 1      | 17   | 37    | 51     | >70  |
| SFBL2000683MX  |  | 68nF                    | X7R        | 200                   | 500         |                             | 2      | 20   | 40    | 55     | >70  |
| SFBL1000104MX  |  | 100nF                   | X7R        | 100                   | 250         |                             | 4      | 22   | 44    | 60     | >70  |
| SFBL0500154MX  | 150nF  | X7R                     | 50         | 125                   |             | 7                           | 25     | 47   | 62    | >70    |      |

\* Recommended values

† Also available in COG

### Ordering Information

| Type         | Case Style      | Thread | Electrical configuration | Voltage (dc)  | Capacitance in picofarads (pF)  | Capacitance Tolerance   | Dielectric             | Nuts & washers          |
|--------------|-----------------|--------|--------------------------|---|---|-------------------------|------------------------|-------------------------|
| SF           | B               | L      | L                        | 500   | 0102  | M                       | X                      | O                       |
| Syfer Filter | 4.75mm Hex Head | M4     | L = L-C Filter           | 050 = 50V<br>100 = 100V<br>200 = 200V<br>500 = 500V | First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is the number of zeros following.<br>Examples: 0101 = 100pF<br>0332 = 330pF | M = ±20%<br>Z = -20+80% | C = COG/NPO<br>X = X7R | 0 = Without<br>1 = With |

Note: The addition of a 4-digit numerical suffix code can be used to denote changes to the standard part.

Options include for example: change of pin length / custom body dimensions or threads / alternative voltage rating / non-standard intermediate capacitance values / test requirements.

Please refer specific requests to the factory.



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