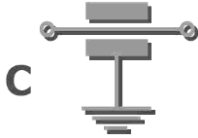


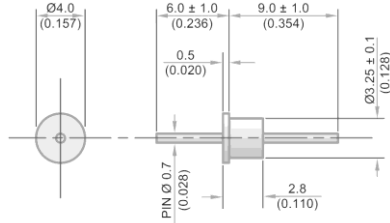
# Solder Mount EMI Filter Datasheet

(3.25mm Body Diameter, Epoxy Sealed)

## Circuit Configuration



Dimensions mm (inches)



## Electrical Details

|                              |                 |
|------------------------------|-----------------|
| Electrical Configuration     | 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) | Not Applicable  |

## Mechanical Details

|                           |                                  |
|---------------------------|----------------------------------|
| Body Flange Diameter      | 4.0mm (0.157")                   |
| Mounting Hole Diameter    | 3.5mm (0.138")                   |
| Max Soldering Temperature | 250°C                            |
| Temperature Rise          | Less than 4°C per second         |
| Soldering Time            | 10 seconds maximum               |
| Solder Type               | Sn62/SAC or equivalent           |
| Weight (Typical)          | 0.4g (0.015oz)                   |
| Finish                    | Silver plate on copper undercoat |

| Product Code     | Capacitance<br>±20% | Dielectric | Rated<br>Voltage<br>(dc) | DWV<br>(dc) | Typical Insertion Loss (db) |        |      |       |        |      |
|------------------|---------------------|------------|--------------------------|-------------|-----------------------------|--------|------|-------|--------|------|
|                  |                     |            |                          |             | 0.01MHz                     | 0.1MHz | 1MHz | 10MHz | 100MHz | 1GHz |
| SFSTC5000100ZC0  | 10pF -20% / +80%    | C0G        | 500#                     | 750         |                             |        |      |       |        | 4    |
| SFSTC5000150ZC0  | 15pF -20% / +80%    | C0G        | 500#                     | 750         |                             |        |      |       |        | 7    |
| SFSTC5000220ZC0  | 22pF -20% / +80%    | C0G        | 500#                     | 750         |                             |        |      |       |        | 10   |
| SFSTC5000330ZC0  | 33pF -20% / +80%    | C0G        | 500#                     | 750         |                             |        |      |       |        | 12   |
| SFSTC5000470ZC0  | 47pF -20% / +80%    | C0G        | 500#                     | 750         |                             |        |      |       | 1      | 15   |
| SFSTC5000680MC0  | 68pF                | C0G        | 500#                     | 750         |                             |        |      |       | 2      | 18   |
| *SFSTC5000101MC0 | 100pF               | C0G        | 500#                     | 750         |                             |        |      |       | 4      | 22   |
| SFSTC5000151MC0  | 150pF               | C0G        | 500#                     | 750         |                             |        |      |       | 7      | 25   |
| SFSTC5000221MC0  | 220pF               | C0G        | 500#                     | 750         |                             |        |      |       | 10     | 29   |
| SFSTC5000331MC0  | 330pF               | C0G        | 500#                     | 750         |                             |        |      |       | 13     | 33   |
| SFSTC5000471MC0  | 470pF               | C0G        | 500#                     | 750         |                             |        |      | 1     | 16     | 35   |
| SFSTC5000681MC0  | 680pF               | C0G        | 500#                     | 750         |                             |        |      | 2     | 19     | 39   |
| SFSTC5000102MX0  | 1.0nF               | X7R        | 500#                     | 750         |                             |        |      | 4     | 23     | 41   |
| *SFSTC5000152MX0 | 1.5nF               | X7R        | 500#                     | 750         |                             |        |      | 7     | 26     | 45   |
| *SFSTC5000222MX0 | 2.2nF               | X7R        | 500#                     | 750         |                             |        |      | 10    | 30     | 50   |
| *SFSTC5000332MX0 | 3.3nF               | X7R        | 500#                     | 750         |                             |        |      | 13    | 33     | 52   |
| *SFSTC5000472MX0 | 4.7nF               | X7R        | 500#                     | 750         |                             |        | 1    | 16    | 36     | 55   |
| SFSTC5000682MX0  | 6.8nF               | X7R        | 500#                     | 750         |                             |        | 2    | 19    | 39     | 57   |
| *SFSTC5000103MX0 | 10nF                | X7R        | 500#                     | 750         |                             |        | 4    | 22    | 41     | 60   |
| SFSTC5000153MX0  | 15nF                | X7R        | 500#                     | 750         |                             |        | 7    | 25    | 44     | 62   |
| *SFSTC5000223MX0 | 22nF                | X7R        | 500#                     | 750         |                             |        | 10   | 29    | 46     | 65   |
| *SFSTC3000333MX0 | 33nF                | X7R        | 300                      | 600         |                             |        | 13   | 33    | 48     | 68   |
| SFSTC2000473MX0  | 47nF                | X7R        | 200                      | 500         |                             | 1      | 16   | 35    | 50     | 70   |
| SFSTC1000683MX0  | 68nF                | X7R        | 100                      | 250         |                             | 2      | 19   | 39    | 54     | >70  |
| SFSTC0500104MX0  | 100nF               | X7R        | 50                       | 125         |                             | 4      | 22   | 41    | 57     | >70  |

# - Also rated for operation at 115Vac 400Hz. Self-heating will occur – evaluation in situ recommended

\* Recommended values

## Ordering Information

| Type         | Case Style | Diameter | Electrical configuration | Voltage (dc)                                        | Capacitance in picofarads (pF)                                                                                                                                                       | Capacitance Tolerance   | Dielectric             | Nuts & washers |
|--------------|------------|----------|--------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------|----------------|
| SF           | S          | T        | C                        | 500                                                 | 0102                                                                                                                                                                                 | M                       | X                      | 0              |
| Syfer Filter | Solder     | 3.25mm   | C = 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 = 3300pF | M = ±20%<br>Z = -20+80% | C = C0G/NP0<br>X = X7R | 0 = Without    |

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.

