

# LC Filter

## Features

- The noise-rejection band can be requested by selecting the capacitors capacitance as required.
- These filters serve as an excellent countermeasure against noise since they provide high attenuation over a wide band of frequency from 10 to 1,000MHz.
- Epoxy powder exteriors provide solid strength and stable lead pitches to assure optimum suitability for automatic inserting operation.
- Compact size allows high density PCB mounting for 2.5mm steps.

## Applications

- Computers and peripheral equipment, word processors, facsimiles.
- Digital controlled equipment and electronic type writer, program controllers.
- Automotive engine control units, car electronics.
- TVs, VCRs, electronic music instruments, video games etc.

## How to Order(Product Identification)

**CFI 06 B 1H 101 M F**



### 1 Type

Type of EMI suppression filter

### 3 Temperature Characteristics

B(Y5P) : ΔC : -15~15% (-55℃~125℃)

### 5 Normal Capacitance(μF)

The first two digits indicate significant digits, the third digit indicates the number of zero following  
ex) 470 → 47μF, 271 → 270μF, 222 → 2200μF

### 7 Packing Style

Code	B	F
Packing	Bulk Packing	Taping type of flat pack(Ammo-Pack)

### 2 Physical Dimensions

06 : Component

### 4 Rated Voltage

1H : 50V DC 2H : 100V DC

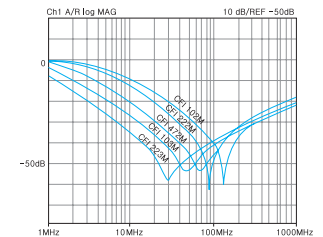
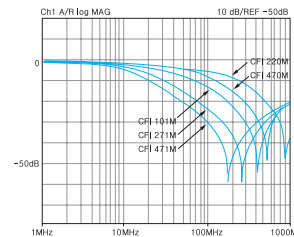
### 6 Capacitance Tolerance

Code	Tolerance
K	±10%
M	±20%
Z	-20, 80%

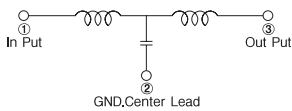
## Specifications

Part No.	Capacitance (μF)	Tolerance	Frequency Range(MHz)	
			-15dB	-25dB
CFI 06 B 1H 220M	22 ±20%	K, M	500-800	700-800
CFI 06 B 1H 330M	33 ±20%		400-800	650-800
CFI 06 B 1H 470M	47 ±20%		350-800	550-700
CFI 06 B 1H 680M	68 ±20%		250-800	450-600
CFI 06 B 1H 101M	100 ±20%		200-800	350-500
CFI 06 B 1H 151M	150 ±20%		150-800	300-400
CFI 06 B 1H 221M	220 ±20%		100-800	200-350
CFI 06 B 1H 271M	270 ±20%		80-800	200-300
CFI 06 B 1H 331M	330 ±20%		70-800	150-300
CFI 06 B 1H 471M	470 ±20%		50-800	120-300
CFI 06 B 1H 681M	680 ±20%	40-800	90-300	
CFI 06 B 1H 102M	1000 ±20%	M	30-800	70-200
CFI 06 B 1H 152M	1500 ±20%		25-800	60-200
CFI 06 B 1H 222M	2200 ±20%		20-800	45-200
CFI 06 B 1H 332M	3300 ±20%		15-800	35-200
CFI 06 B 1H 472M	4700 ±20%		10-800	25-200
CFI 06 B 1H 682M	6800 ±20%		8-800	20-200
CFI 06 B 1H 103M	10000 ±20%		6-800	15-200
CFI 06 B 1H 153M	15000 ±20%		5-800	10-200
CFI 06 B 1H 223M	22000 ±20%		4-800	9-200
CFI 06 B 1H 333M	33000 ±20%		3-800	7-200
CFI 06 B 1H 473M	47000 ±20%	M, Z	2-800	3-200
CFI 06 B 1H 104M	100000 ±20%		1-800	3-200

## Typical Insertion Loss Characteristics



Schematic and Characteristics

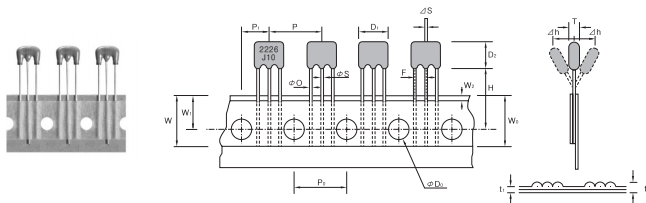


Item	Specification
Rated Voltage	50VDC
Rated current Between terminals ① and ③	1A
Withstanding test voltage between terminals ① and ② or ② and ③	125V DC
Insulation resistance at 50V DC for 1 minute	10,000MΩ Min.
DC resistance between terminals ① and ③	50mΩ Max.
Operating temperature range	-25°C ~ 85°C

Electrical Characteristics

Item	Specification	Item	Specification
Operating Temperature	B : -55°C ~ +125°C	Temperature characteristic	B : ±15%
Rated voltage	50V/100V DC	Testing voltage	125V/250V DC
Insulation resistance	10,000MΩ Min.	Tanδ	B : 3.0% Max.
Rated current	1A Max.	DC Resistance	50mΩ Max.

Shape & Dimensions



Item	Code	Dimensions(mm)	Item	Code	Dimensions(mm)
Component Width	D <sub>1</sub>	8.0 Max.	Carrier Type Width	W	18.0±0.5
Component Height	D <sub>2</sub>	6.2 Max.	Hole Down Type Width	W <sub>1</sub>	5.0 Min.
Component Thickness	T	2.8 Max.	Position of Sprocket Hole	W <sub>2</sub>	9.0±0.5
Pitch of Component	P	12.7±1.0	Hole Down Type Position	W <sub>2</sub>	1.5±1.5
Pitch of Sprocket Hole	P <sub>1</sub>	12.7±0.3	Height of Component from Hole Center	H	19.0±1.0
Length from Hole Center to Component Center	P <sub>2</sub>	6.35 ±1.3	Diameter of Sprocket Hole	ØD <sub>1</sub>	4.0±0.2
Lead Spacing	F	2.5 -0.1, +0.4	Total Tape Thickness	t <sub>1</sub>	0.5±0.2
Deviation along Tape, Left of Right	ΔS	1.0 Max.	Total Thickness, Tape and Lead wire	t <sub>2</sub>	1.5 Max.
Deviation across Type	Δh	2.0 Max.	Lead Diameter	ØO	0.6±0.05
				ØS	0.5±0.05

BEAD Filter

Features

- Available in various configurations to conform to the wiring materials in use the characteristics as required.
- Absorbs noise effectively because of the impedance over 30Ω in high frequency band.
- Automatic insertion type of taping is available.
- An invention patented article Korea, Japan, U.S.A, U.K, Taiwan, Germany, Sweden, Italy.

Applications

- Computers and peripheral equipment, word processors, facsimiles.
- Digital controlled equipment and electronic type writer, program controllers.
- Automotive engine control units, car electronics.
- TVs, VCRs, electronic music instruments, video games etc.

How to Order(Product Identification)

**BF S 3550 R 2 F**



1 Type

BEAD Filter

2 Beads Shape Code

S	D	W	R
Single Bead	Double Bead	Wide Bead	Ferrite Core

3 Physical Dimensions

Unit: mm

Single & Double Type				Wide Type		Ferrite Core Type	
Code	Size O.D×L	Code	Size O.D×L	Code	Size O.D×L	Code	Size O.D×L×I.D
2070	2.0×7.0	3565	3.5×6.5	7555	7.5×5.5	601009	6.0×10×0.9
2550	2.5×5.0	3580	3.5×8.0				
3550	3.5×5.0	3510	3.5×10.0				
3557	3.5×5.7	3512	3.5×12.0				
3560	3.5×6.0	3514	3.5×14.0				

[O.D: Out Diameter, L: Length, W: Width, I.D: Inner Diameter]

**4 Leaded Type**

A : Axial Leaded R : Radial Leaded

**5 Leaded Pitch**

0 : Straight 2 : 5mm Pitch

**6 Packing Style**

Code	Packing	Code	Packing
B	Bulk Packing	F	Taping Type Flat Pack(Radial)
S	Taping Type Flat Pack(Axial 26mm)	L	Taping Type Flat Pack(Axial 52mm)

**Specifications**

Testing frequency : at 100MHz, an exception SPEC : BFS 3557 A0, BFS 3560 A0 at 10MHz

Spec	z (Ω)		DC Resistance (mΩ)	Insulation (At DC 100V, MΩ)	Allowable DC Current (A Max.)
	Min.	Typical			
BFD 2070 R2	120	150	10	1	3
BFS 2550 A0	50	65	10	1	3
BFS 2550 R2	50	65	10	1	3
BFD 2550 R2	100	130	10	1	3
BFS 3550 A0	65	70	10	1	6
BFS 3550 R2	65	70	10	1	6
BFD 3550 R2	130	140	10	1	6
BFS 3557 A0	31.5	45	10	1	6
BFS 3560 A0	31.5	45	10	1	6
BFS 3565 A0	80	100	10	1	6
BFS 3565 R2	80	100	10	1	6
BFD 3565 R2	160	200	10	1	6
BFS 3580 A0	103	120	10	1	6
BFS 3580 R2	103	120	10	1	6
BFD 3580 R2	206	240	10	1	6
BFS 3510 A0	120	150	10	1	6
BFS 3510 R2	120	150	10	1	6
BFD 3510 R2	240	300	10	1	6
BFS 3512 A0	148	180	10	1	6
BFS 3512 R2	148	180	10	1	6
BFD 3512 R2	296	360	10	1	6
BFS 3514 A0	170	210	10	1	6
BFS 3514 R2	170	210	10	1	6
BFD 3514 R2	340	420	10	1	6
BFW 7555 R2	90	120	10	1	6
BFR601009C8ND	280	350	50	1	6
BFR601009C8NE	360	450	50	1	6
BFR601009C8NF	440	550	50	1	6
BFR601009C8NG	520	650	50	1	6

**Electrical Characteristics Test Method**

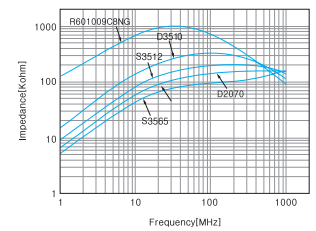
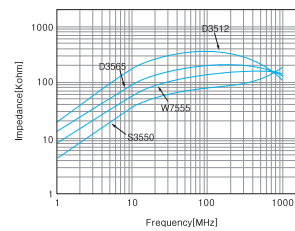
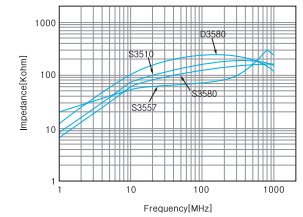
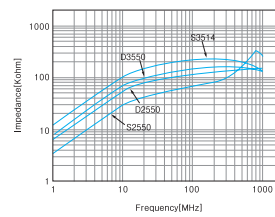
**1. Impedance(|Z|)**

Refer to article |Z|-f Characteristics(Measurement : Impedance Analyzer)

**2. Insulation Resistance Test**

Insulation resistance test between core and wire shall be measured H.P 4339B Insulation Resistance Meter Insulation Resistance : 1MΩ, Min. † (At DC 100V, 60Sec)

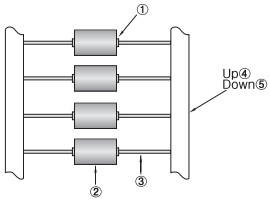
**|Z|-f Characteristics**



Material Certificate

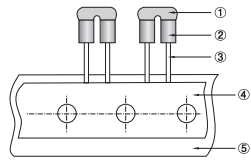
※ We guarantee that the same material above used

Axial



No.	Component Parts	Material	Remark
①	Epoxy Bond	Uni Bond Orange	Lead free
②	Ferrite Core	Ni-Zn Material	Lead free
③	Lead-Wire	Sn 100% Plat on Copper Wire(0.6 $\phi$ )	Lead free
④	Marking Tape	Width 5.8mm	Lead free
⑤	Paper Tape	Width 6.0mm	Lead free

Radial



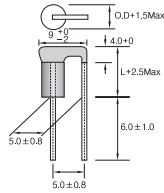
No.	Component Parts	Material	Remark
①	Epoxy Bond	ECP-200 Orange	Lead free
②	Ferrite Core	Ni-Zn Material	Lead free
③	Lead-Wire	Sn 100% Plat on Copper Wire(0.6 $\phi$ )	Lead free
④	Marking Tape	Heating Tape	Lead free
⑤	Hard Paper	18mm x 0.38mm	Lead free

Shape & Dimensions

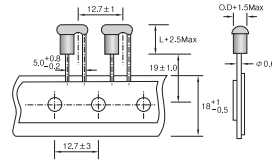
Radial Type



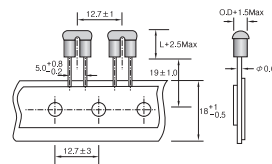
BFS R2B Type



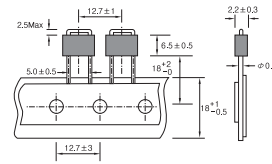
BFS R2F Type



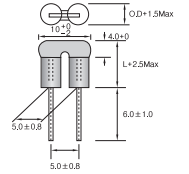
BFD R2F Type



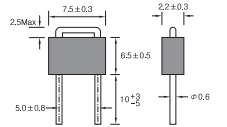
BFW R2F Type



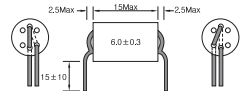
BFD R2B Type



BFW R2B Type

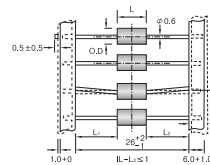


BFR 6010 Type



Axial Type

BFS A0S Type



BFS A0L Type

