

# Digital Signal Noise Filter

## FEATURES

- The noise-rejection band can be requested by selecting the capacitor 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 1000MHz
- 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.
- A design patented article

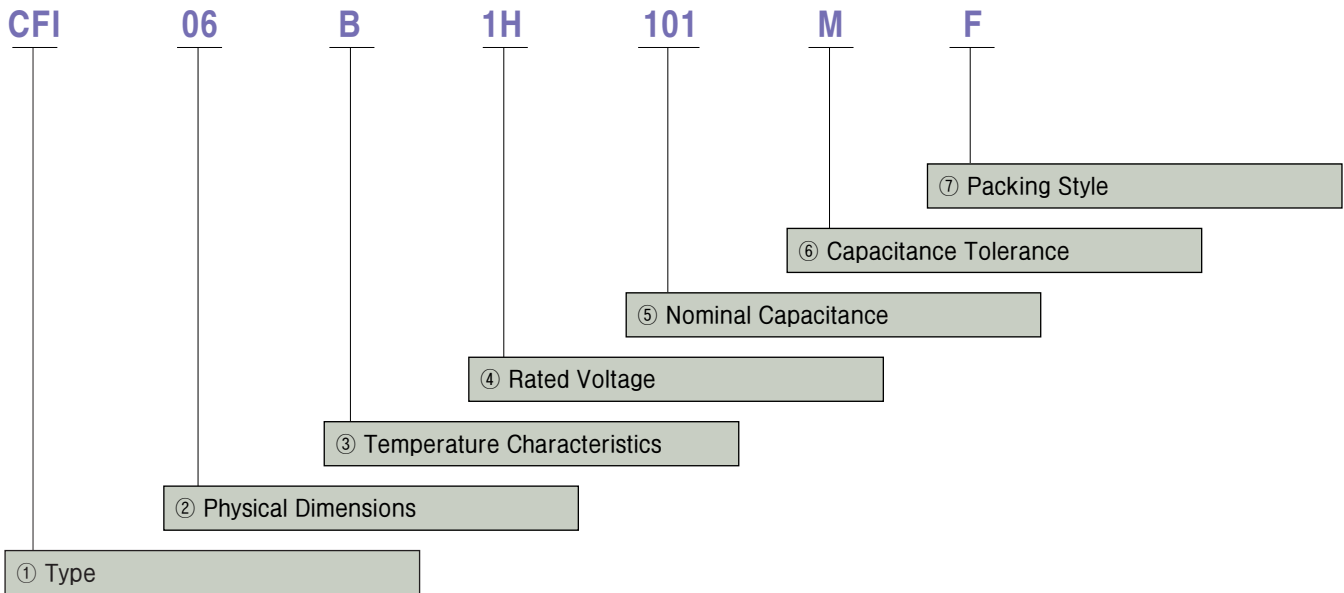
## APPLICATION

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

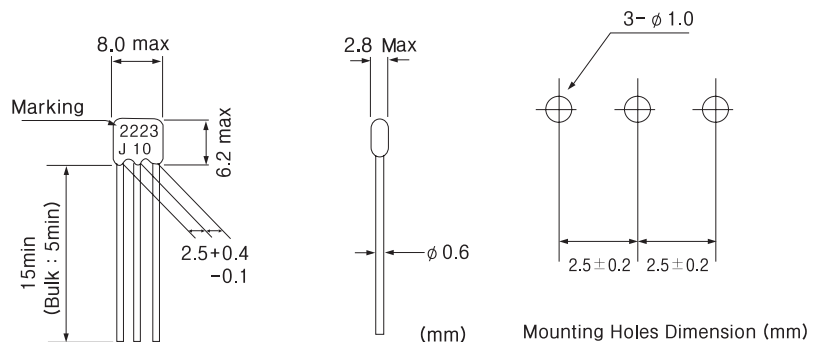
## TYPE DESIGNATION

(1) Type Code

L.C Type EMI FILTER



(2) Physical Dimensions

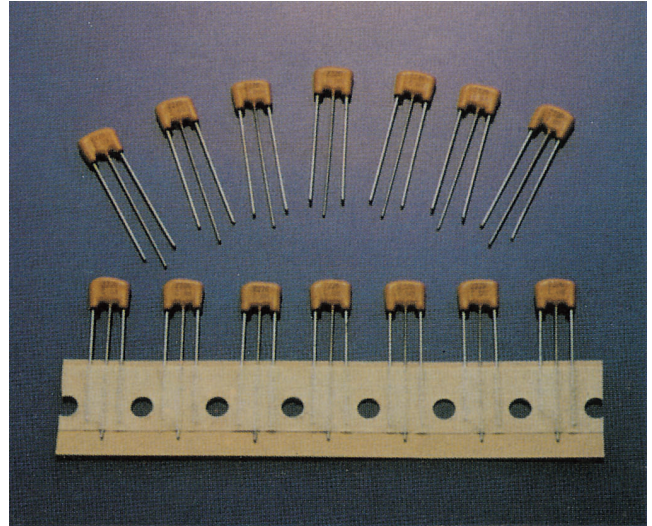


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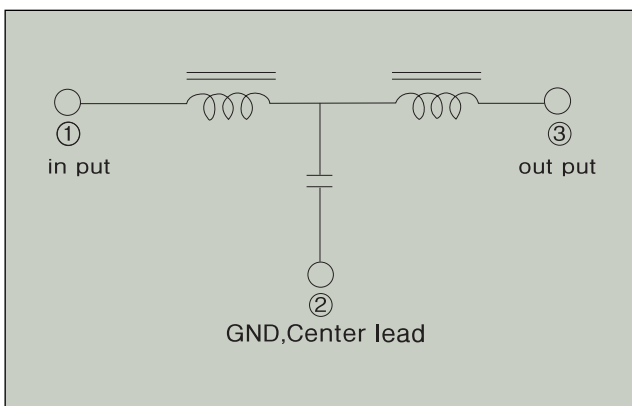
- (3) Temperature Characteristics
  - B (Y5P) : -10~+10%
- (4) Rated Voltage
  - 1H : 50V DC
  - 2A : 100V DC
- (5) Nominal Capacitance(pF)
 

The first two digits indicate significant digits, the third digit indicates the number of zeros following

ex) 470 → 47pF  
 271 → 270pF  
 222 → 2200pF
- (6) Capacitance Tolerance
  - K: ±10% M: ±20% K: +80%  
 -20%
- (7) Packing Style
  - B : Bulk Packing
  - F : Taping type flat pack (Ammo-Pack)



## SCHEMATIC



## ELECTRICAL CHARACTERISTICS

Rated Voltage	50VDC
Rated Current between terminals ① and ③	1A
Withstanding test voltage between terminals ① and ② or ② and ③	125VDC
Insulation resistance at 50VDC for 1 minute	10,000MΩ MIN
DC resistance between terminals ① and ③	50mΩ Max
Operating temperature range	-25℃~+85℃

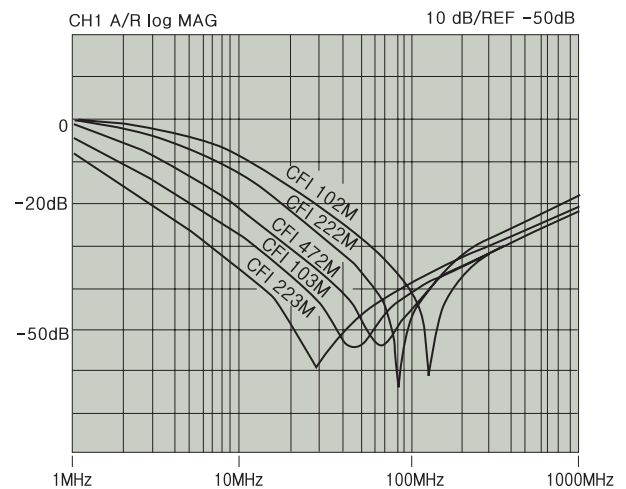
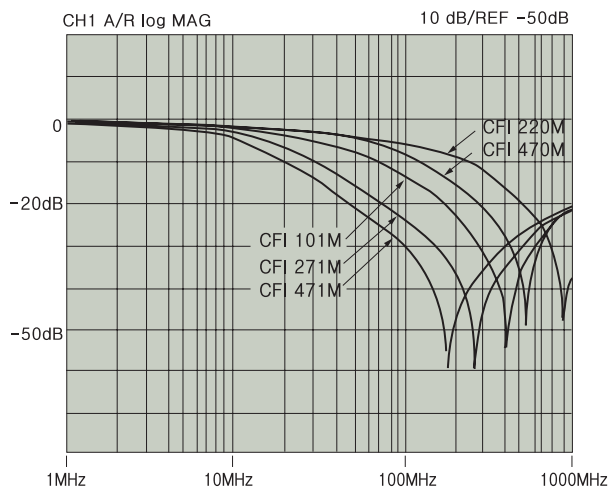
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## SPECIFICATIONS

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

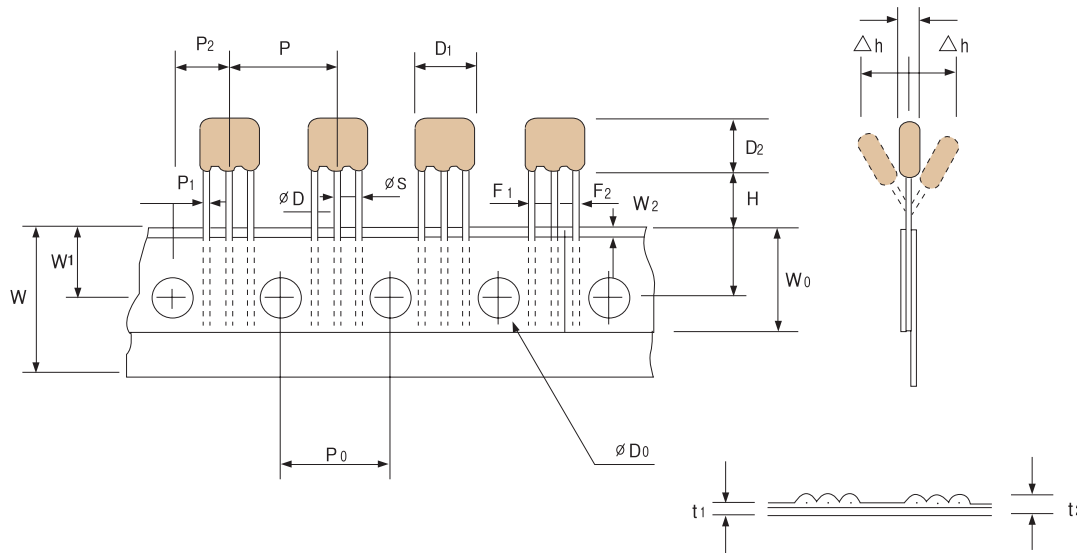
★Capacitance Tolerance

## TYPICAL INSERTION LOSS CHARACTERISTICS



# LC-TYPE EMI SUPPRESSION FILTER

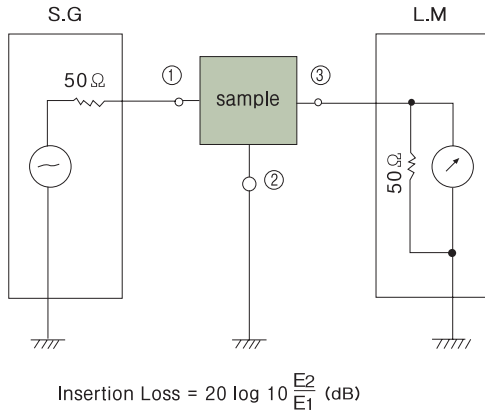
## PHYSICAL DIMENSIONS



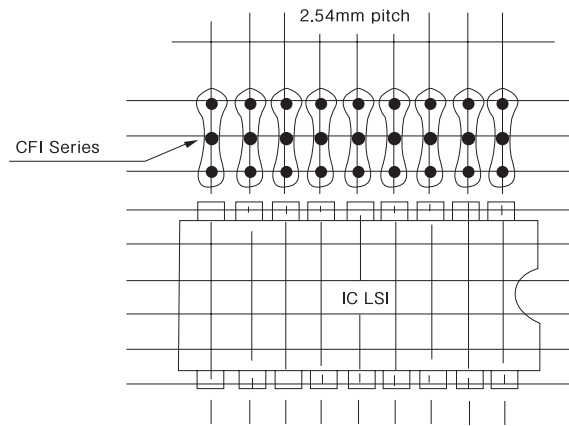
ITEM	Code	Dimension(mm)
Component Width	$D_1$	8.0MAX
Component Height	$D_2$	6.2MAX
Component Thickness	T	2.8MAX
Pitch of Component	P	$12.7 \pm 0.3$
Pitch of Sprocket Hole	$P_0$	$12.7 \pm 1.0$
Lenght from Hole Center to Component Center	$P_1$	$6.35 \pm 0.4$
Lead Spacing	$F_{1,2}$	$2.5 + 0.4 - 0.1$
Deciation Across Tape	$\Delta h$	2.0MAX
Carrier Tape Width	W	$18.0 \pm 0.5$
Hold Down Tape Width	$W_0$	5.0MIN
Position of Sprocket Hole	$W_1$	$9.0 \pm 0.5$
Hold Down Tape Position	$W_2$	$1.5 \pm 1.5$
Height of Component from Hole Center	H	$19.0 \pm 1.0$
Diameter of Sprocket Hole	$D_0$	$4.0 \pm 0.2$
Total Tape Tickness	$t_1$	$0.5 \pm 0.2$
Total Thickness Tape and Lead Wire	$t_2$	1.5MAX
Lead Diameter	O	$0.6 \pm 0.05$
	S	$0.5 \pm 0.05$

# EMI SUPPRESSION FILTER APPLICATION

## • Measuring Circuit

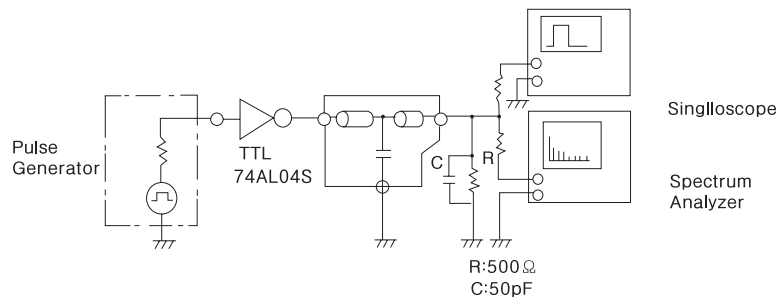


## • High density PCB Mounting

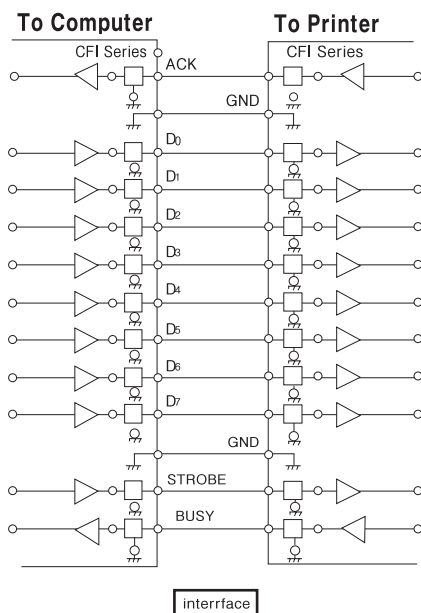


## • Measurement Effect Model of Noise Suppression

(1) Measuring circuit CFI 221



## • EMI Filter Application



## • Spectrumwave

