

## MCF Series



The MCF series is a type of common mode filter designed and produced using the multilayer technology. The multilayer construction allows for excellent noise suppression for signal lines used in high-speed and high-density digital equipment such as personal computers, facsimiles, DSC, STB, etc. Both standard series and custom-design products are available.

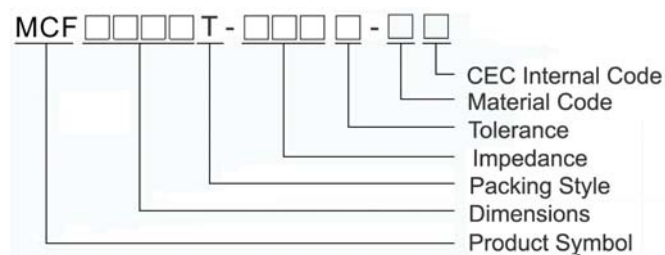
### Features

- Multilayer construction for effective suppression of common mode noise at high frequency
- Excellent solderability
- Compact design

### Applications

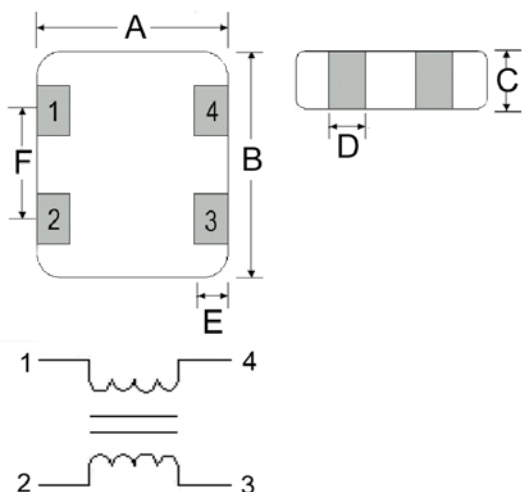
- High speed interfaces (IEEE1394, USB2.0, and LVDS) in electronic devices
- PDP, LCD TV, DVD player, PC, Audio player, DSC
- Digital audio and video equipment such as PDAs, DVC, CD player, MD player, etc.

### Product Identification



### Shape and Dimensions

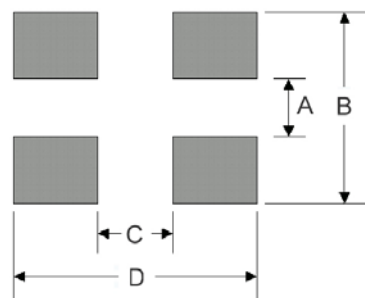
#### MCF08



Dimensions in mm

TYPE	A	B	C	D	E	F
MCF08	0.65±0.05	0.85±0.05	0.40±0.05	0.27±0.1	0.20 <sup>+0.05</sup> <sub>-0.1</sub>	0.5±0.1

### Recommended Pattern

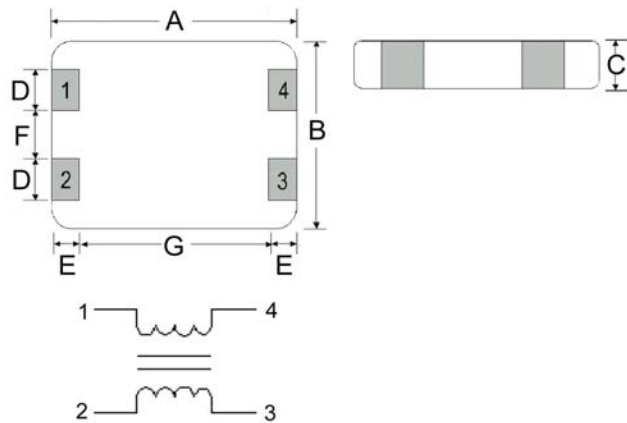


Dimensions in mm

TYPE	A	B	C	D
MCF08	0.15~0.25	0.65~0.95	0.25~0.35	0.75~1.05

Shape and Dimensions

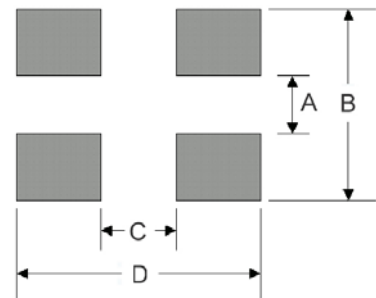
MCF11



Dimensions in mm

TYPE	A	B	C	D	E	F	G
MCF11	1.25±0.15	1.00±0.15	0.60±0.15	0.30±0.15	0.20±0.15	0.25±0.15	0.85±0.15

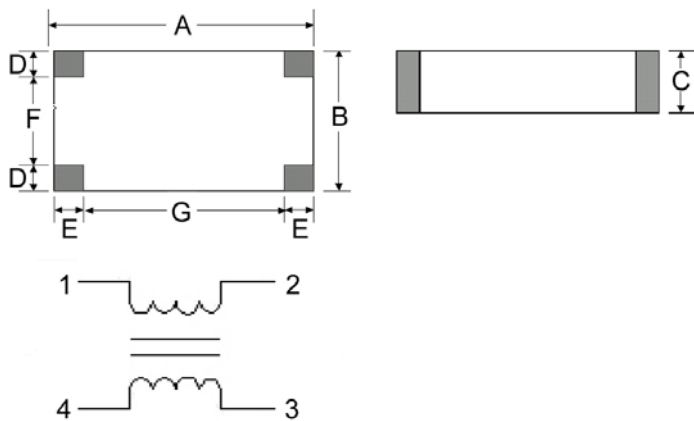
Recommended Pattern



Dimensions in mm

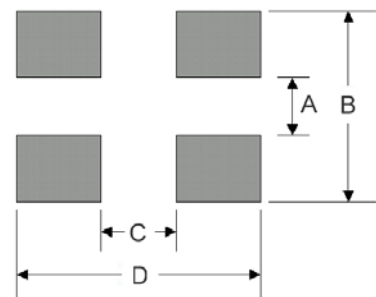
TYPE	A	B	C	D
MCF11	0.2~0.3	0.7~1.0	0.7~0.8	1.6~1.9

MCF21



Dimensions in mm

TYPE	A	B	C	D	E	F	G
MCF21	2.00±0.20	1.25±0.20	1.00±0.20	0.35±0.10	0.40±0.10	0.55±0.20	1.20±0.20



Dimensions in mm

TYPE	A	B	C	D
MCF21	0.50	1.30	0.80	2.60

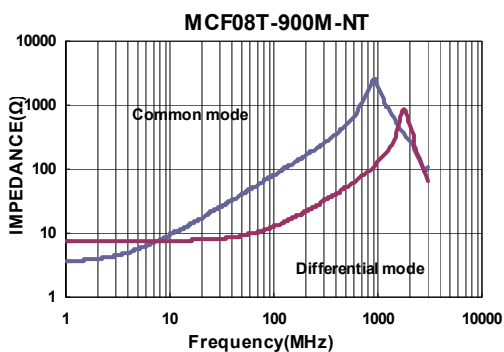
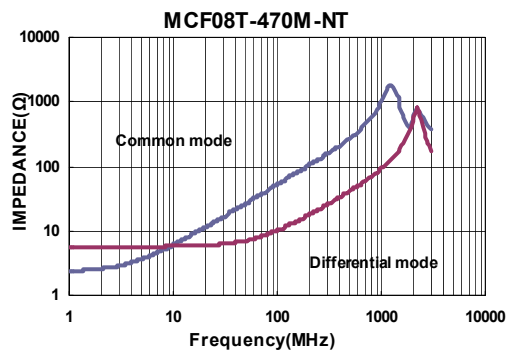
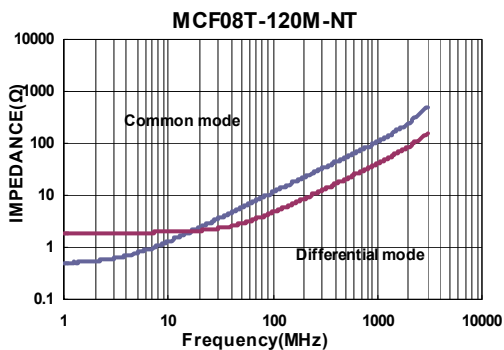
## Electrical Characteristics

Part Number	Impedance ( $\Omega$ )	Tolerance ( $\pm\%$ )	Test Frequency (MHz)	RDC ( $\Omega$ )Max	Rated Current (mA)Max	Rated Voltage (Vdc)Max	Insulation Resistance ( $M\Omega$ ) Min
MCF08T-120M-NT	12	20	100	2.5	130	5	100
MCF08T-470M-NT	47	20	100	5.0	100	5	100
MCF08T-900M-NT	90	20	100	6.5	100	5	100

**Note: When ordering, please specify tolerance code. Tolerance: M $\pm$ 20%**

- Operating temperature range - 25°C ~ 85°C(Including self - temperature rise)
- Rated Current for Inductance drop 10% from its value with current
- Measure Equipment :  
 Z : Agilent E4991  
 RDC : HP4338B or CHEN HWA 502(Single Wire Test Value)  
 Insulation Resistance : Agilent HP4339B

**Test Instruments :** Agilent E4991A Material/Impedance Analyzer



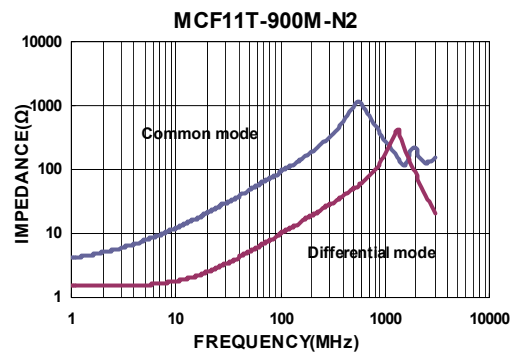
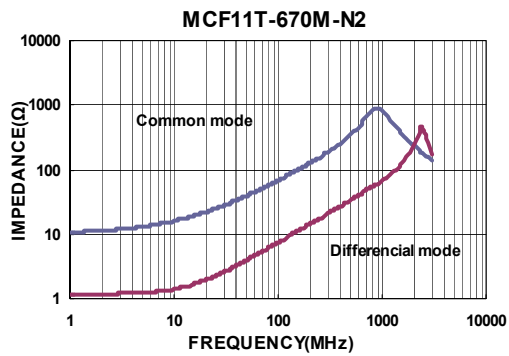
## Electrical Characteristics

Part Number	Impedance ( $\Omega$ )	Test Frequency (MHz)	Tolerance ( $\pm\%$ )	RDC ( $\Omega$ )Max	Rated Current (mA)Max	Rated Voltage (Vdc)Max	Insulation Resistance (M $\Omega$ ) Min
MCF11T-670M-N2	67	100	20	1.35	200	10	200
MCF11T-900M-N2	90	100	20	1.45	200	10	200

**Note: When ordering, please specify tolerance code. Tolerance: M $\pm$ 20%**

- Operating temperature range - 40°C ~ 105°C(Including self - temperature rise)
- Rated current :  $\Delta T=30^\circ\text{C}$
- Measure Equipment :  
 Z : Agilent E4991  
 RDC : HP4338B or CHEN HWA 502(Single Wire Test Value)  
 Insulation Resistance : Agilent HP4339B

**Test Instruments :** Agilent E4991A Material/Impedance Analyzer



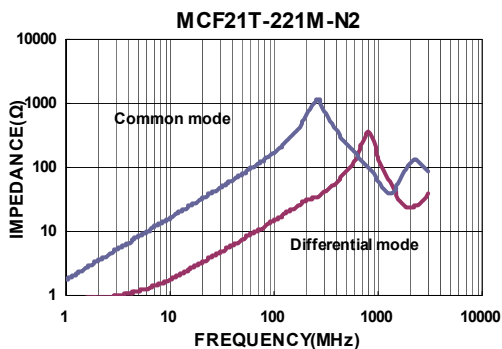
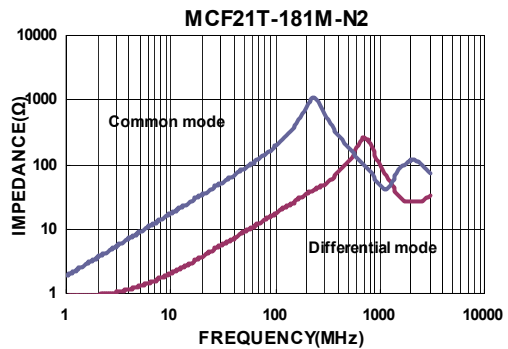
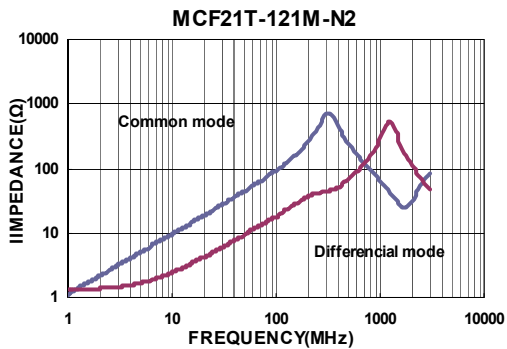
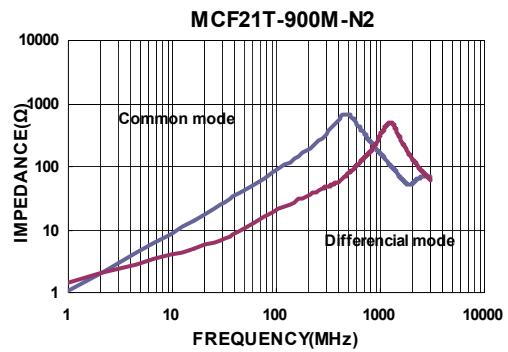
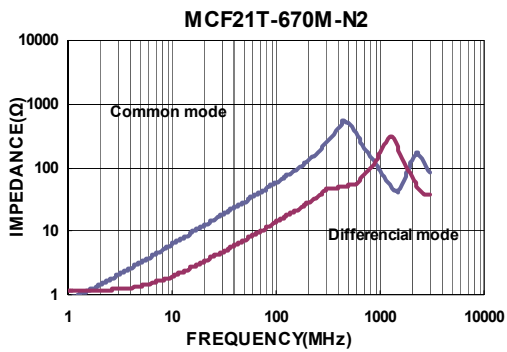
## Electrical Characteristics

Part Number	Impedance (Ω)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω)Max	Rated Current (mA)Max	Rated Voltage (Vdc)Max	Insulation Resistance (MΩ) Min
MCF21T-670M-N2	67	20	100	0.80	400	30	200
MCF21T-900M-N2	90	20	100	0.85	400	30	200
MCF21T-121M-N2	120	20	100	0.90	300	30	200
MCF21T-181M-N2	180	20	100	1.20	200	30	200
MCF21T-221M-N2	220	20	100	1.35	200	30	200

**Note:** When ordering, please specify tolerance code. Tolerance: M=±20%

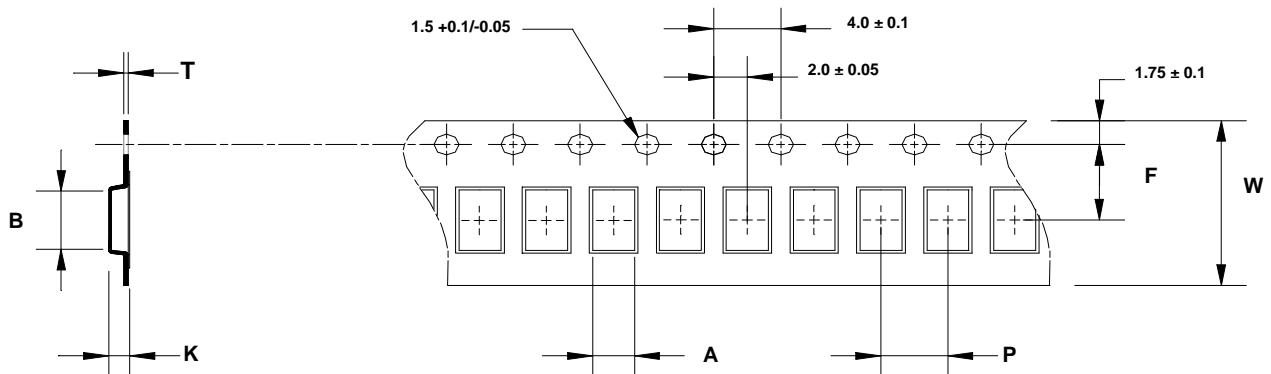
- Operating temperature range - 40°C ~ 105°C(Including self - temperature rise)
- Rated current : ΔT=30°C
- Measure Equipment :
  - Z : Agilent E4991
  - RDC : HP4338B or CHEN HWA 502(Single Wire Test Value)
  - Insulation Resistance : Agilent HP4339B

**Test Instruments :** Agilent E4991A Material/Impedance Analyzer

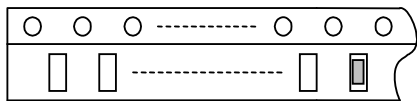


## Packaging Specifications

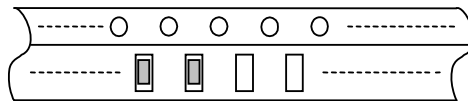
### Tape Dimensions



Trailer End

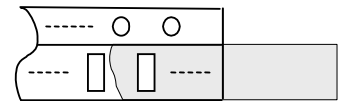


Blank part(160mm min.)

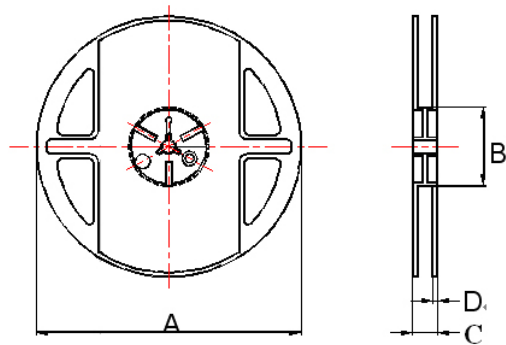


Blank Compartments with Cover Tape and Leader (330mm min.)

Leader End



### Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	A	B	C	D	
MCF08	0.75	0.95	0.30	8	2	3.5	0.55	178	60	12	1.5	10000
MCF11	1.15	1.50	0.25	8	4	3.5	0.72	178	60	12	1.5	4000
MCF21	1.45	2.30	0.22	8	4	3.5	1.13	178	60	12	1.5	3000