**CHIP EMIFIL®**EMIFIL® is the trademark of
Murata Manufacturing Co., Ltd.**muRata****Chip Solid EMIFIL® NFM2012R/40R/3212R/41R/4516R Series**

The chip solid EMIFIL® NFM2012R*/40R/3212R*/41R/4516R* series is a chip type 3-terminal EMI suppression filter. It can reduce residual inductance to an extremely low level making it excellent for noise suppression at high frequencies.

An electrostatic capacitance range of 22pF to 22000pF enables suppression of noise at specific frequencies. (The array type NFA series is also available.)

*Using base metal to the electrode.

■FEATURES

1. Small and low profile of 2.0mm×1.25mm×0.5mm (NFM2012R) enables high density mounting.
2. The 3 terminal structure enables high performance in high frequency range.
3. Use original electrode structure which realize excellent solderability.

■APPLICATIONS

- PCs and peripherals which emit high amount of noise
- Compact size equipment such as PDA, PC card and mobile telecommunication equipments
- Severe EMI suppression and high impedance circuits such as digital circuits

■PART NUMBERING

(Please specify the part number when ordering.)

(Ex.)

NFM3212R	13	C	221	R	T1
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① ② ③ ④ ⑤ ⑥

① Type

② Class No.

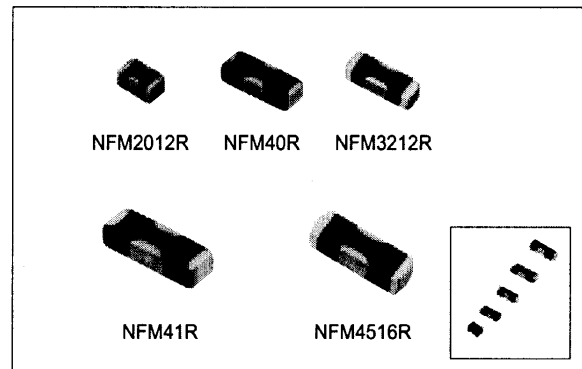
③ Circuit Composition

④ Characteristics

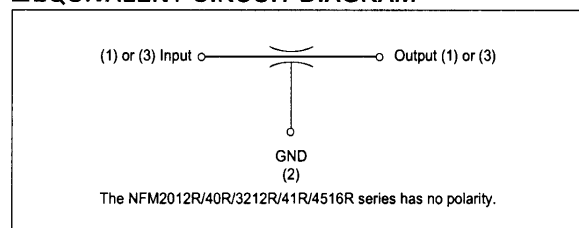
⑤ Other Characteristics (NFM2012R/3212R/4516R)

⑥ Packaging Code T1 : Taped

 B1 : Bulk package

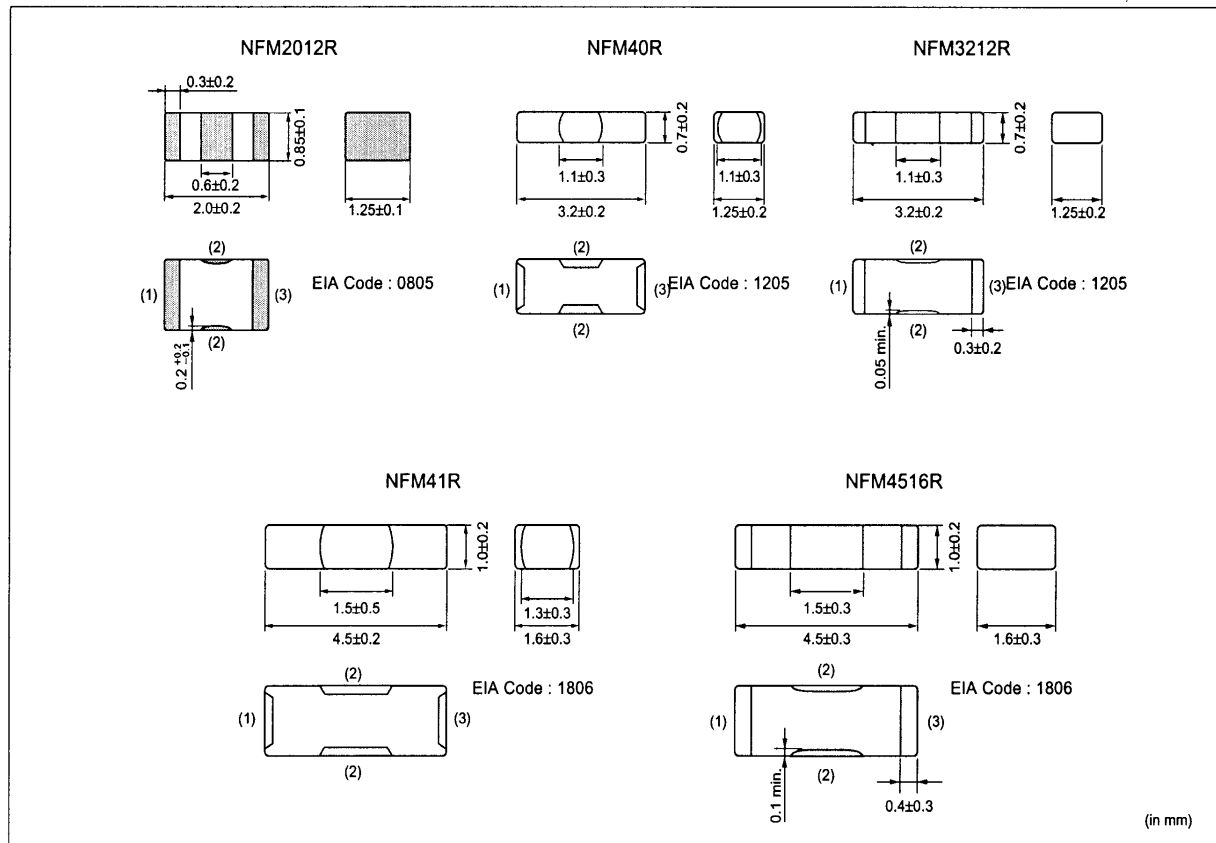


■EQUIVALENT CIRCUIT DIAGRAM



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■ DIMENSIONS



■ SPECIFICATIONS

NFM2012R Series

Part Number	Capacitance	Rated Voltage	Rated Current	Insulation Resistance	DC Resistance	Operating Temp. Range (°C)
NFM2012R03C220R	22pF±20%	50Vdc	300mA _{dc}	1000MΩ min.	0.3Ω max.	-55 to +125
NFM2012R03C470R	47pF±20%					
NFM2012R03C101R	100pF±20%					
NFM2012R13C221R	220pF±20%					
NFM2012R13C471R	470pF±20%					
NFM2012R13C102R	1000pF±20%					
NFM2012R13C222R	2200pF±20%					
NFM2012R13C223R	22000pF±20%		1A _{dc}		0.03Ω max.	

NFM40R Series

Part Number	Capacitance	Rated Voltage	Rated Current	Insulation Resistance	DC Resistance	Operating Temp. Range (°C)
NFM40R02C220	22pF±50%	25Vdc	300mA _{dc}	1000MΩ min.	0.6Ω max.	-55 to +125
NFM40R02C470	47pF±50%					
NFM40R02C101	100pF±50%					

NFM3212R Series

Part Number	Capacitance	Rated Voltage	Rated Current	Insulation Resistance	DC Resistance	Operating Temp. Range (°C)
NFM3212R13C221R	220pF±50%	50Vdc	300mA _{dc}	1000MΩ min.	0.3Ω max.	-55 to +125
NFM3212R13C471R	470pF±50%					
NFM3212R13C102R	1000pF±50%					
NFM3212R13C222R	2200pF±50%					
NFM3212R13C223R	22000pF±50%					

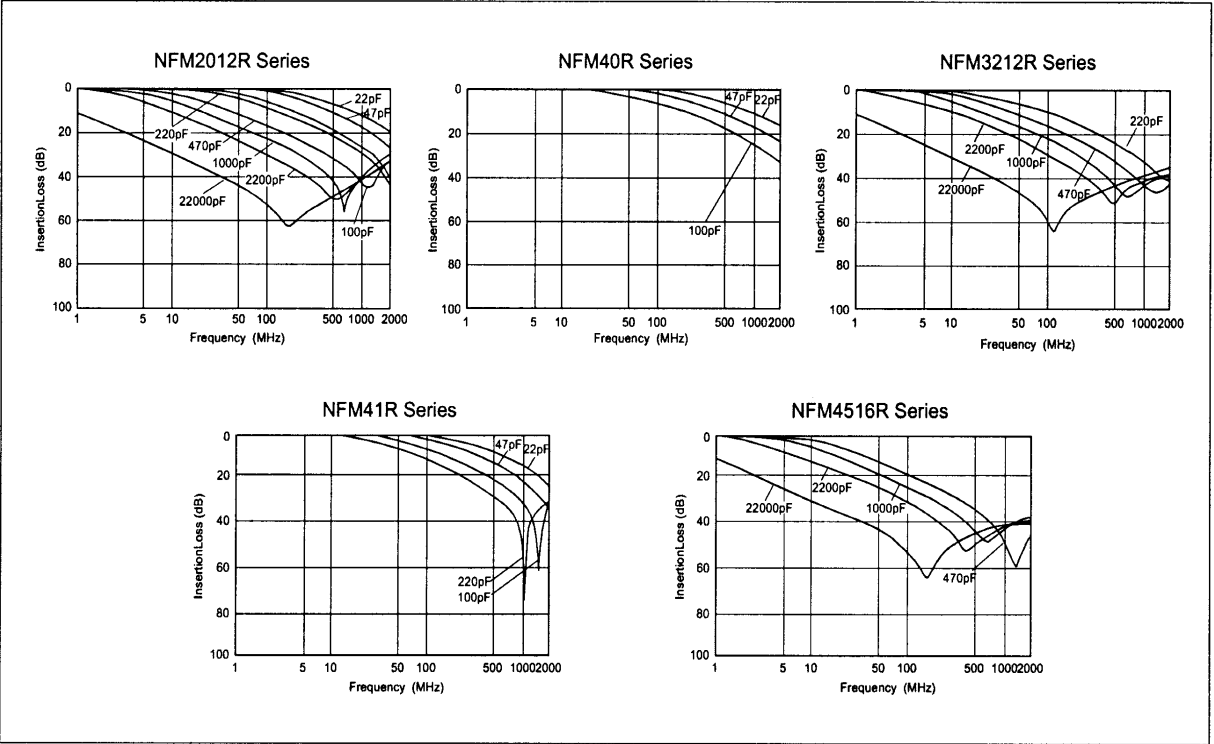
NFM41R Series

Part Number	Capacitance	Rated Voltage	Rated Current	Insulation Resistance	DC Resistance	Operating Temp. Range (°C)
NFM41R02C220	22pF±5%	100Vdc	300mAdc	10000MΩ min.	0.3Ω max.	-55 to +125
NFM41R02C470	47pF±5%					
NFM41R02C101	100pF±5%					
NFM41R02C221	220pF±5%					

NFM4516R Series

Part Number	Capacitance	Rated Voltage	Rated Current	Insulation Resistance	DC Resistance	Operating Temp. Range (°C)
NFM4516R13C471R	470pF±5%	100Vdc	300mAdc	10000MΩ min.	0.3Ω max.	-55 to +125
NFM4516R13C102R	1000pF±5%					
NFM4516R13C222R	2200pF±5%					
NFM4516R13C223R	22000pF±5%					

■ INSERTION LOSS CHARACTERISTIC (TYPICAL)



■ INSERTION LOSS MEASURING CIRCUIT

