# Chip 3-Terminal EMI Filter – MFL Series

**Operating Temp. : -40℃~+85℃**

## FEATURES

- Multilayer structure and low profile enables high density mounting
- Crosstalk is prevented due to closed magnetic circuit
- Steep attenuation characteristics achieves effective noise suppression

## APPLICATIONS

- Noise suppression in visual signal such as DVD, DSC, LCD, PDP, etc
- Suppression of high magnitude radiated noise generated by high speed digital circuits such as clock line

## PRODUCT IDENTIFICATION

| MF | L | 2012 | SP | 101 | M | 1C | T | F |
|---|---|---|---|---|---|---|---|---|
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | ⑨ |

①

| Type | |
|---|---|
| MF | EMI Chip EMI Filter |

②

| Structure Code |
|---|
| L |

③

| (L×W) (mm) External Dimensions (L×W) (mm) | |
|---|---|
| 1608 [0603] | 1.6×0.8 |
| 2012 [0805] | 2.0×1.2 |

④

| Feature | |
|---|---|
| SP | PI Type Circuit |

⑤

| Cut-off Frequency | |
|---|---|
| Example | Nominal Value |
| 101 | 100MHz |
| 401 | 400MHz |

⑥

| Tolerance of Cut-off Frequency | |
|---|---|
| M | ±20% |

⑦

| Rated Voltage | |
|---|---|
| 1C | 16V |

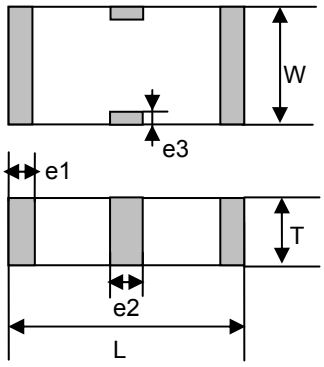
⑧

| Packing | |
|---|---|
| T | Tape Carrier Package |

⑨

| Hazardous Substance Free Products |
|---|
| F |

## SHAPE AND DIMENSIONS




Unit: mm [inch]

| Type | L | W | T | e1 | e2 | e3 |
|---|---|---|---|---|---|---|
| MFL1608 [0603] | 1.6±0.2 [.063±.008] | 0.8±0.2 [.032±.008] | 0.6±0.2 [.024±.008] | 0.2±0.15 [.008±.006] | 0.4±0.2 [.016±.008] | 0.2±0.15 [.008±.006] |
| MFL2012 [0805] | 2.0±0.2 [.079±.008] | 1.2±0.2 [.047±.008] | 0.95±0.2 [.037±.008] | 0.3±0.15 [.012±.006] | 0.5±0.15 [.020±.006] | 0.3±0.15 [.012±.006] |




Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 **Tel**: 0086-755-29832660 **Fax**: 0086-755-82269029 **E-Mail**: sunlord@sunlordinc.com

## SPECIFICATIONS

MFL1608 TYPE

| Part Number | Cut-off Frequency | Rated Voltage | Rated Current | Min. Insulation Resistance | Max. DC Resistance | Attenuation |
|---|---|---|---|---|---|---|
| Units | MHz | Volt | mA | MΩ | Ω | dB |
| Symbol | $f_0$ | $V_{DC}$ | Ir | IR | DCR | - |
| MFL1608SP401M1CTF | 400 | 16 | 300 | 200 | 0.8 | 20dB Min. at 800-2000MHz |

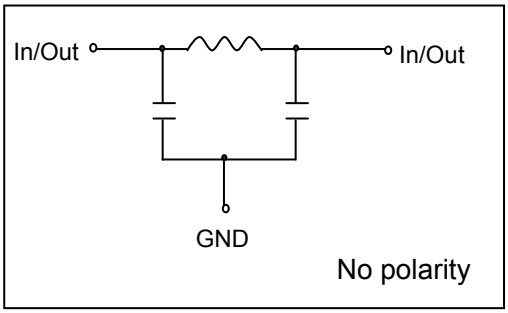
MFL2012 TYPE

| Part Number | Cut-off Frequency | Rated Voltage | Rated Current | Min. Insulation Resistance | Max. DC Resistance | Attenuation |
|---|---|---|---|---|---|---|
| Units | MHz | Volt | mA | MΩ | Ω | dB |
| Symbol | $f_0$ | $V_{DC}$ | Ir | IR | DCR | - |
| MFL2012SP101M1CTF | 100 | 16 | 200 | 200 | 1.5 | 20dB Min. at 250-2000MHz |
| MFL2012SP151M1CTF | 150 | 16 | 200 | 200 | 1.0 | 20dB Min. at 350-2000MHz |
| MFL2012SP201M1CTF | 200 | 16 | 250 | 200 | 1.0 | 20dB Min. at 450-2000MHz |
| MFL2012SP301M1CTF | 300 | 16 | 300 | 200 | 1.0 | 20dB Min. at 550-2000MHz |
| MFL2012SP401M1CTF | 400 | 16 | 300 | 200 | 0.8 | 20dB Min. at 800-2000MHz |
| MFL2012SP501M1CTF | 500 | 16 | 300 | 200 | 0.8 | 20dB Min. at 1000-2000MHz |

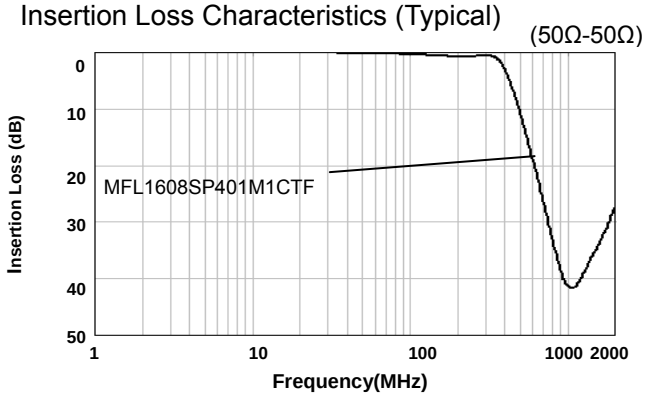
## TYPICAL ELECTRICAL CHARACTERISTICS

MFL1608SP TYPE

Equivalent Circuit

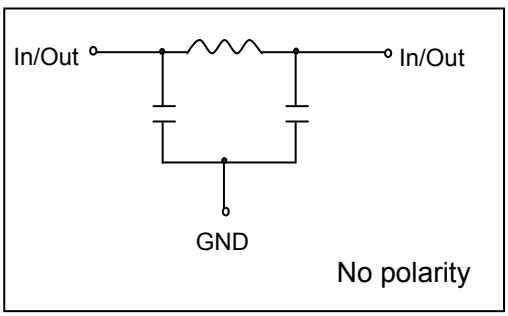



Insertion Loss Characteristics (Typical)

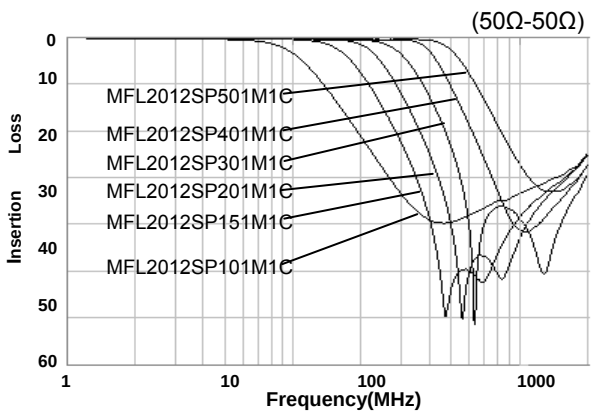



MFL2012SP TYPE

Equivalent Circuit




Insertion Loss Characteristics (Typical)







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