

EMC Components

ZFN Series

3-Terminal Filters for Signal Line and DC Power Line Feed-Through

FEATURES

- Compact, light weight, and high performance. Capable of effectively preventing noise over an extremely wide GHz frequency range.
- Resistant to environmental factors such as humidity, vibration, shock, etc. Highly stable and reliable.
- Screw mount simplifies installation.

APPLICATIONS

Radio equipment, various types of measurement devices (for generators, etc.), various types of electronic controllers, communication equipment (PCM repeaters, etc.), home appliances (VCRs, etc.), industrial robots, numerical control equipment, microcomputers, electronic calculators, terminals.



SHAPES AND DIMENSIONS

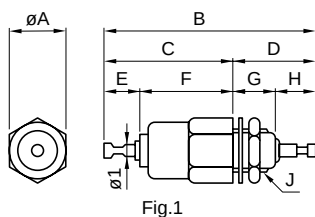


Fig.1

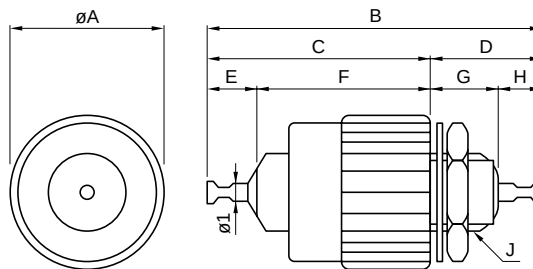


Fig.2

Part No.		Dimensions (mm)										Maximum tightening torque (N • m)	Maximum soldering conditions (°C/s)
		A	B	C	D	E	F	G	H	I	J		
ZFN5101-01R	Fig.1	6	25.5	15.5	10	5	10.5	4	6	12	M4×0.5	3.43×10^{-1}	350/3
ZFN5103-00R	Fig.1	8	28	17.5	10.5	5	12.5	5	5.5	1.6	M6×0.75	14.7×10^{-1}	350/3
ZFN5203-00R	Fig.1	8	28	17.5	10.5	5	12.5	5	5.5	1.6	M6×0.75	14.7×10^{-1}	350/3
ZFN5101-00R	Fig.2	20	45	30	15	7	23	8	7	2	M12×1	29.4×10^{-1}	350/3
ZFN5205-00R	Fig.2	20	45	30	15	7	23	8	7	2	M12×1	29.4×10^{-1}	350/3

ELECTRICAL CHARACTERISTICS

Part No.	ZFN5101-01R	ZFN5103-00R	ZFN5203-00R	ZFN5101-00R	ZFN5205-00R*
Rated voltage (V)	DC.50	DC.50	DC.500	DC.50	DC.500/AC.125
Rated current (A)	1	3	3	1	5
Test voltage (V)[5s]	DC.125	DC.125	DC.1250	DC.125	DC.1500/AC.1000
Insulation resistance (MΩ) [1min/rated voltage is applied]	100min.	100min.	100min.	100min.	100min.
DC resistance (Ω)	0.01max.	0.01max.	0.01max.	0.7max.	0.04max.
Operating temperature range (°C)	-25 to +85	-25 to +85	-25 to +85	-25 to +85	-25 to +85
Attenuation frequency range (MHz) [+5 to +35°C]	at 20dB	30 to 1000	10 to 1000	30 to 1000	0.15 to 1000
	at 40dB	60 to 1000	20 to 1000	50 to 1000	0.3 to 1000
					8 to 1000

* Leakage current is less than 1mA when the ZFN5205-00R is used with AC current (AC.125V/60Hz). AC.1000V test voltage is applied for 1 minute.

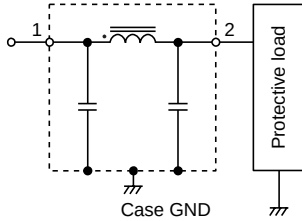
• This EMC filter should not be used where these test conditions can be exceeded.

EMC Components

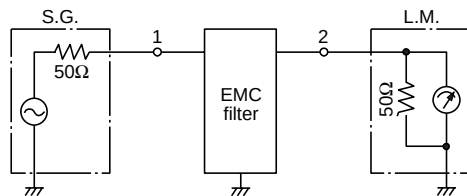
ZFN Series

3-Terminal Filters for Signal Line and DC Power Line Feed-Through

CIRCUIT DIAGRAM



MEASURING CIRCUIT



$$\text{Attenuation} = 20 \log_{10} \frac{E_2}{E_1} \text{ (dB)}$$

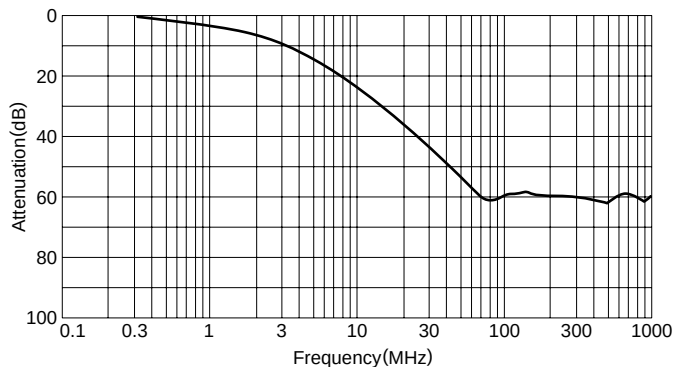
E1: Set EMC filter in the circuit

E2: Leave EMC filter in the circuit

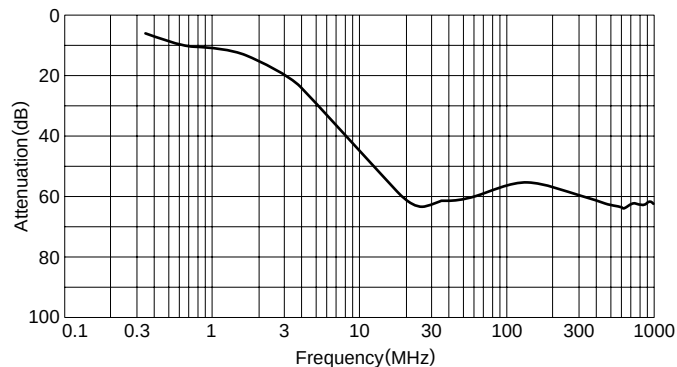
TYPICAL ELECTRICAL CHARACTERISTICS

ATTENUATION vs. FREQUENCY CHARACTERISTICS

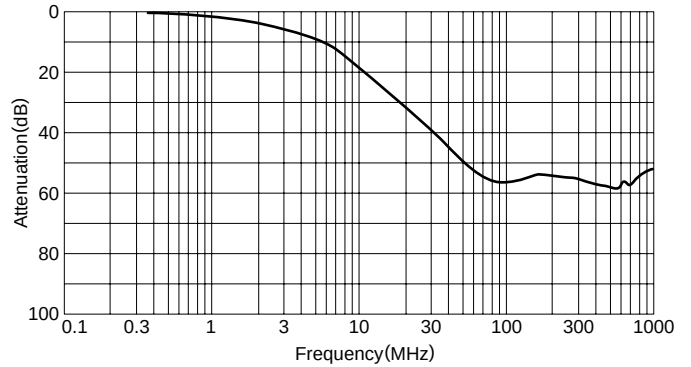
ZFN5101-01R



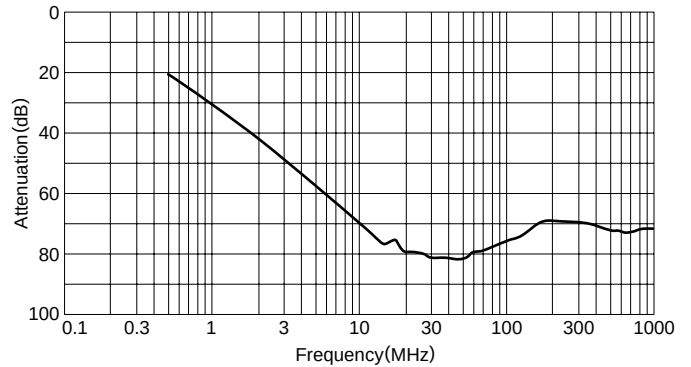
ZFN5103-01R



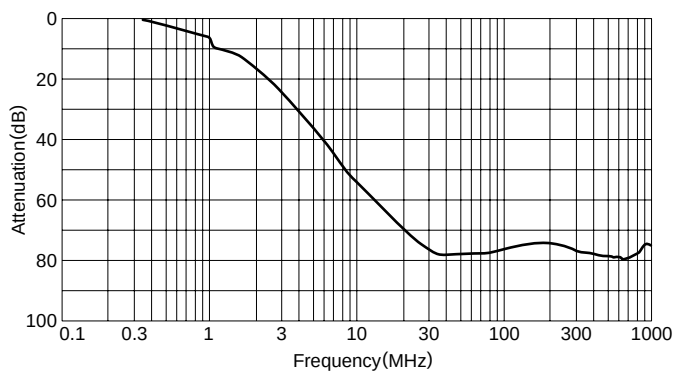
ZFN5203-00R



ZFN5101-00R



ZFN5205-00R



INFORMATION

Please note that products and some specifications have changed as indicated below. New series product codes end with the letter "R".

Conventional series	New series
ZFN5101-01(DC.50V, 1A)	ZFN5101-01R(DC.50V, 1A)
ZFN5103-00(DC.50V, 3A)	ZFN5103-00R(DC.50V, 3A)
ZFN5203-00(DC.500V, 3A)	ZFN5203-00R(DC.500V, 3A)
ZFN5101-00(DC.50V, 1A)	ZFN5101-00R(DC.50V, 1A)
ZFN5205-00(DC.500V, 5A)	ZFN5205-00R(DC.500V/AC.125V, 5A)
ZFN2205-00(AC.250V, 5A)	

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