

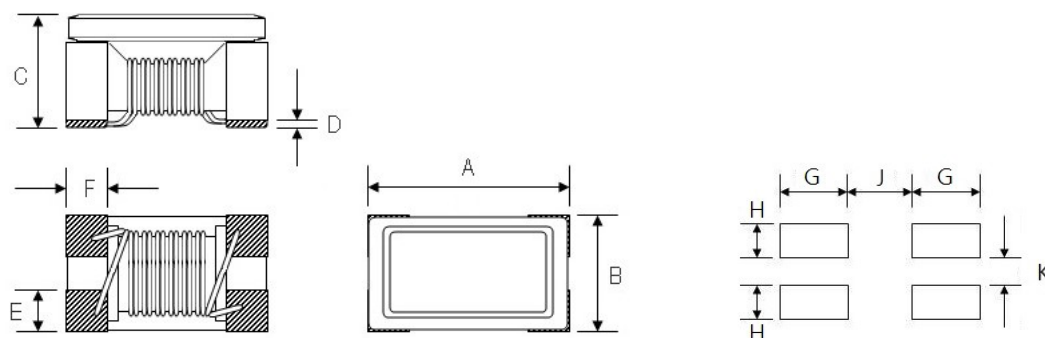
Wire Wound Common Mode Choke

Description

The MFD Series is a Wire wound miniature common mode filter specifically designed to eliminate common mode noise in USB 2.0, USB 3.0, USB 3.1, HDMI, IEEE1394, and LVDS applications.

A dual winding configuration in a tight form factor provides exceptional EMI reduction in space-constrained environments.

Dimensions and footprint (Unit : mm)



Unit : mm

Size	A	B	C	D	E	F	G	H	J	K
MFD-1210	1.20±0.2	1.00±0.2	0.90 max	0.15 max	0.36	0.33	0.45	0.45	0.60	0.30
MFD-1608	1.60±0.2	0.80±0.2	1.10±0.2	0.10±0.1	0.25	0.33	0.70	0.35	0.70	0.30
MFD-2012	2.00±0.2	1.20±0.2	1.20±0.2	0.20±0.1	0.40	0.45	0.90	0.40	0.80	0.40
MFD-2012E	2.00±0.2	1.20±0.2	1.30±0.2	0.20±0.1	0.40	0.45	0.90	0.40	0.80	0.40
MFD-2012S	2.00±0.2	1.20±0.2	0.90 max	0.20±0.1	0.40	0.45	0.90	0.40	0.80	0.40
MFD-3216	3.20±0.2	1.60 ±0.2	1.90±0.2	0.20±0.1	0.60	0.60	1.05	0.60	1.60	0.40

Part Number Code

MFD - 2012 A - 90 0 S
 1 2 3 4 5 6

1、Series Name

2、Size Code : the first two digitals : length(mm), the last two digitals : width(mm)

3、Shielding Type : A : USB1.0/1GHz、B : USB2.0/3.5GHz、C : HDMI1.4 Cat2/6GHz、

D : USB3.0/7.5GHz、E : USB3.1/10GHz、S : Short

4、Impedance(Ω)

{ (ex : 600=60Ω ; 601=600Ω)

5、Fixed Decimal Point

6、Tolerance : S=±25%、M=±20%、N=±30%

Specification

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)
MFD-1210A-670	67	0.40	300	20	10	1.0 typ.
MFD-1210A-900	90	0.50	280	20	10	1.0 typ.
MFD-1210A-121	120	0.55	270	20	10	1.0 typ.
MFD-1210A-161	160	0.58	260	20	10	1.0 typ.
MFD-1210A-181	180	0.60	260	20	10	1.0 typ.
MFD-1210A-251	250	0.70	230	20	10	1.0 typ.
MFD-1210A-331	330	0.80	200	20	10	1.0 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)
MFD-1210C-250	25	0.30	300	20	10	6.0 typ.
MFD-1210C-670	67	0.40	300	20	10	6.0 typ.
MFD-1210C-900	90	0.50	280	20	10	6.0 typ.
MFD-1210C-121	120	0.55	270	20	10	6.0 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)	Characteristic Resistance (Ω)
MFD-1210D-250	25	0.30	300	20	10	7.5 typ.	90 typ.
MFD-1210D-600	60	0.40	300	20	10	7.5 typ.	90 typ.
MFD-1210D-900	90	0.50	280	20	10	7.5 typ.	90 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)	Characteristic Resistance (Ω)
MFD-1210E-250	25	0.30	300	20	10	10.0 typ.	90 typ.
MFD-1210E-600	60	0.40	300	20	10	10.0 typ.	90 typ.
MFD-1210E-900	90	0.50	280	20	10	10.0 typ.	90 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Withstand Voltage (Vdc)
MFD-1608A-670	67	0.30	300	50	10	125
MFD-1608A-900	90	0.30	300	50	10	125
MFD-1608A-121	120	0.36	250	50	10	125
MFD-1608A-161	160	0.40	200	50	10	125
MFD-1608A-221	220	0.42	200	50	10	125

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Withstand Voltage (Vdc)
MFD-2012A-670	67	0.25	400	50	10	125
MFD-2012A-900	90	0.30	400	50	10	125
MFD-2012A-121	120	0.30	350	50	10	125
MFD-2012A-161	160	0.30	350	50	10	125
MFD-2012A-181	180	0.35	330	50	10	125
MFD-2012A-221	220	0.35	330	50	10	125
MFD-2012A-261	260	0.40	300	50	10	125
MFD-2012A-361	360	0.40	280	50	10	125

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)	Characteristic Resistance (Ω)
MFD-2012B-900	90	0.30	300	20	10	3.5 typ.	100 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)	Characteristic Resistance (Ω)
MFD-2012C-240	24	0.20	300	50	10	6.0 typ.	100 typ.
MFD-2012C-300	30	0.20	300	50	10	6.0 typ.	100 typ.
MFD-2012C-600	60	0.30	300	50	10	6.0 typ.	100 typ.
MFD-2012C-900	90	0.30	300	50	10	6.0 typ.	100 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)	Characteristic Resistance (Ω)
MFD-2012D-120	12	0.25	420	50	10	7.5 typ.	100 typ.
MFD-2012D-240	24	0.25	420	50	10	7.5 typ.	100 typ.
MFD-2012D-250	25	0.22	420	50	10	7.5 typ.	100 typ.
MFD-2012D-320	32	0.25	400	50	10	7.5 typ.	100 typ.
MFD-2012D-600	60	0.30	300	50	10	7.5 typ.	100 typ.
MFD-2012D-900	90	0.30	300	50	10	7.5 typ.	100 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Cut-off Frequency (GHz)
MFD-2012E-900	90	0.30	500	50	10	10 typ.

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Withstand Voltage (Vdc)
MFD-2012S-250	25	0.22	420	50	10	125
MFD-2012S-400	40	0.25	400	50	10	125
MFD-2012S-670	67	0.25	400	50	10	125
MFD-2012S-900	90	0.30	400	50	10	125
MFD-2012S-121	120	0.30	350	50	10	125
MFD-2012S-161	160	0.30	350	50	10	125
MFD-2012S-181	180	0.35	330	50	10	125
MFD-2012S-221	220	0.35	330	50	10	125
MFD-2012S-261	260	0.40	330	50	10	125

Part No.	Impedance (Ω) 100MHz	DCR (Ω) (max)	IDC (mA) (max)	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (M Ω) Min.	Withstand Voltage (Vdc)
MFD-3216A-670	67	0.25	400	50	10	125
MFD-3216A-900	90	0.30	400	50	10	125
MFD-3216A-121	120	0.35	370	50	10	125
MFD-3216A-161	160	0.40	340	50	10	125
MFD-3216A-181	180	0.40	340	50	10	125
MFD-3216A-261	260	0.50	310	50	10	125
MFD-3216A-361	360	0.60	290	50	10	125
MFD-3216A-601	600	0.80	260	50	10	125
MFD-3216A-102	1000	1.00	230	50	10	125
MFD-3216A-222	2200	1.20	200	50	10	125