#### Common Mode Filter









**RoHS** 

### **FEATURES**

- Good temperature characteristic
- Compact size
- Effective anti-interference
- High reliability
- Meets UL508 isolation requirements

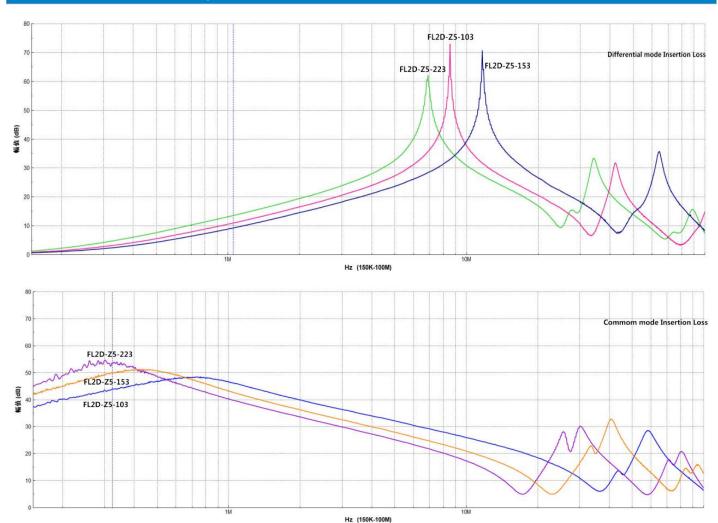
It is suitable for occasions that are sensitive to noise and EMC, such as analog circuits. After installing a FL2D-xx-xxx at the input of the module, the noise at the output of the module can be greatly reduced, which can significantly improve the EMC performance.

Selection Guide										
Model	Inductance (µH)(typ)	Current (A)(max)	DCR(mΩ) (typ)	Weight (g) (typ)	Size(L*W*H)					
FL2D-Z5-103	10000*2	0.5	500*2	4.5	17*9.6*18 See Figure 1					
FL2D-Z5-153	15000*2	0.5	600*2	4.5	17*9.6*18 See Figure 1					
FL2D-Z5-223	22000*2	0.5	650*2	4.5	17*9.6*18 See Figure 1					
FL2D-10-102	1000*2	1.0	70*2	4.5	17*9.6*18 See Figure 1					
FL2D-10-222	2200*2	1.0	90*2	4.5	17*9.6*18 See Figure 1					
FL2D-10-332	3300*2	1.0	100*2	4.5	17*9.6*18 See Figure 1					
FL2D-10-472	4700*2	1.0	140*2	4.5	17*9.6*18 See Figure 1					
FL2D-10-682	6800*2	1.0	160*2	6.5	19*11*23.5 See Figure 2					
FL2D-10-822	8200*2	1.0	180*2	6.5	19*11*23.5 See Figure 2					
FL2D-10-203	20000*2	1.0	240*2	5.6	18*10*17.5 See Figure 8					
FL2D-30-351	350*2	3.0	30*2	3.9	17*9.6*18 See Figure 1					
FL2D-30-102	1000*2	3.0	40*2	4.5	17*9.6*18 See Figure 1					
FL2D-30-222	2200*2	3.0	50*2	4.5	17*9.6*18 See Figure 1					
FL2D-30-472	4700*2	3.0	70*2	4.5	17*9.6*18 See Figure 1					
FL2D-30-103	10000*2	3.0	50*2	13.8	24.5*22.5*15.5 See Figure 3					
FL2D-60-402	4000*2	6	35*2	20	24*23.5*19 See Figure 5					
FL2D-60-451	450*2	6	9*2	6.4	18*15*17 See Figure 6					
FL2D-A2-202	2000*2	12.0	145*2	25.2	25.5*23.8*15.5 See Figure 4					
FL2D-D0-040	4*2	40	2*2	30.9	36*28*20 See Figure 7					
Note: The Inductano	ce of FL2D-30-103, FL2D-A2-202	are minimum value, oth	ers are typical value.							

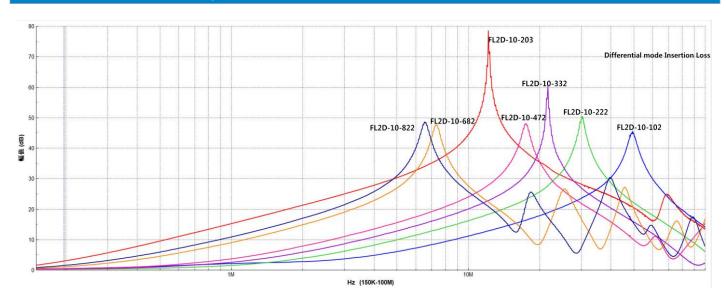
Note: The Inductance of FL2D-30-103, FL2D-A2-202 are minimum value, others are typical value.

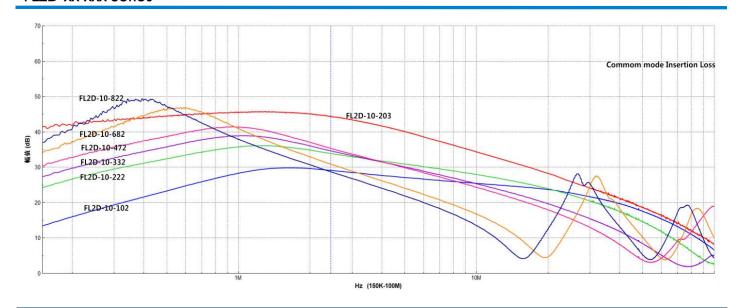
<b>General Specification</b>	ons							
Item	Test Conditions			Тур.	Max.	Unit		
Operating Temperature*					105	•0		
Storage Temperature			-40		105	°C		
Storage Humidity					95	%RH		
In about and a	fo=1kHz, Uo=0.3V	FL2D-30-351	-50			%		
Inductance		Others	-35					
	Leakage current lo=1mA		2000			VDC		
Isolation	Leakage current lo=5mA, testing time 3s, only for FL2D-30-103, FL2D-A2-202	Coil-coil	1500			VAC		
		Coil-core	1000					
Vibration	FL2D-30-103, FL2D-A2-202, FL2 FL2D-60-451, FL2D-D0-040	FL2D-30-103, FL2D-A2-202, FL2D-60-402, FL2D-60-451, FL2D-D0-040			IEC60077, IEC 61373 - Category 1, Grade B			

# FL2D-Z5-xxx Insertion Loss Specifications (reference value)

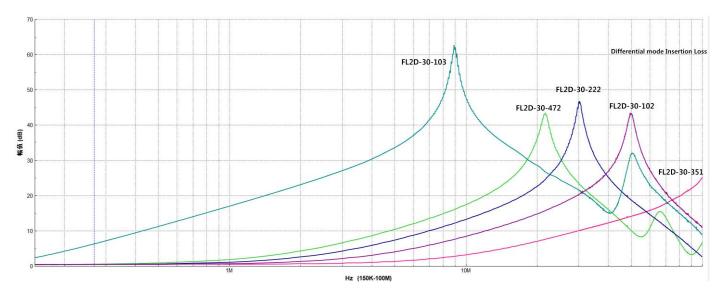


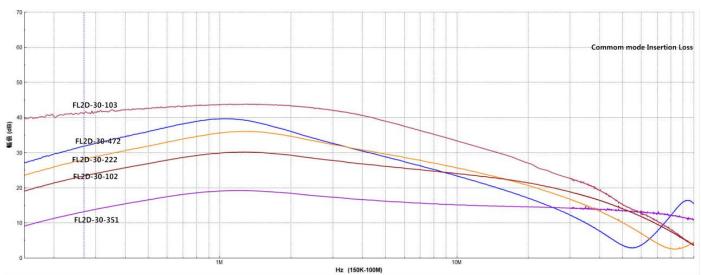
## FL2D-10-xxx Insertion Loss Specifications (reference value)



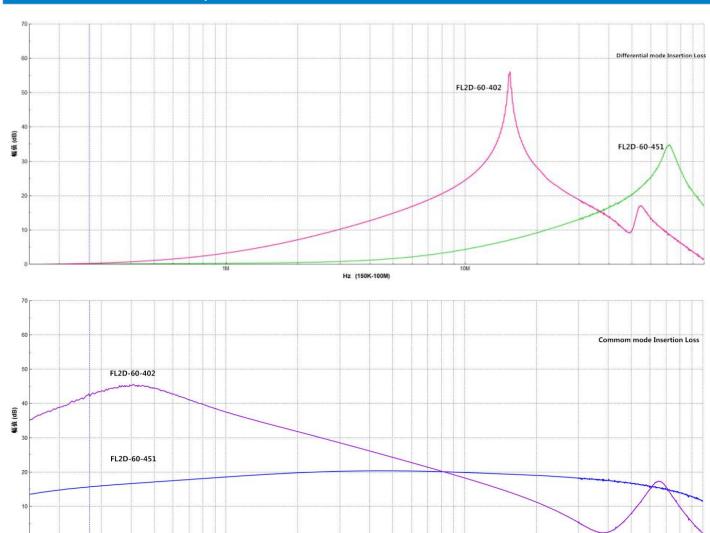


## FL2D-30-xxx Insertion Loss Specifications (reference value)

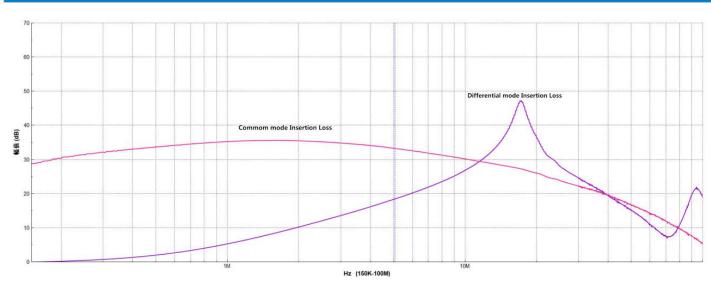




## FL2D-60-xxx Insertion Loss Specifications (reference value)

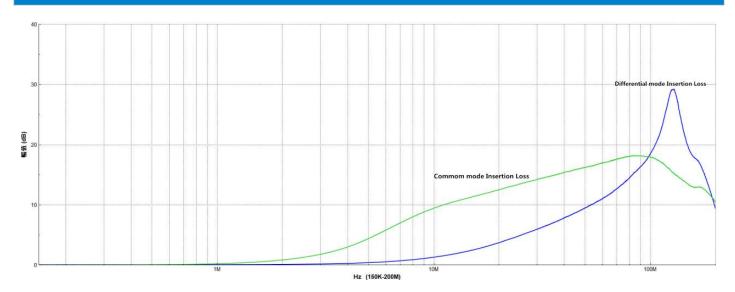


# FL2D-A2-xxx Insertion Loss Specifications (reference value)

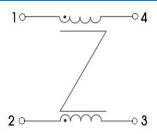


Hz (150K-100M)

## FL2D-D0-xxx Insertion Loss Specifications (reference value)



### Pin Function

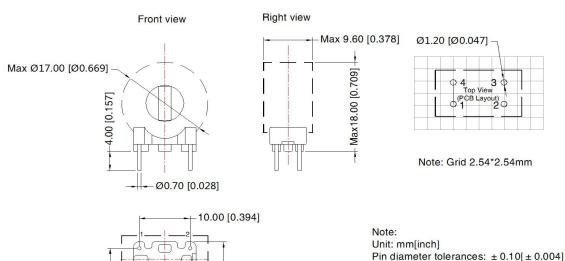


### **Dimensions and Recommended Layout**

4.50 [0.177]

12.30 [0.484] Bottom view





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General tolerances:  $\pm 0.50[\pm 0.020]$ 

Fig. 1

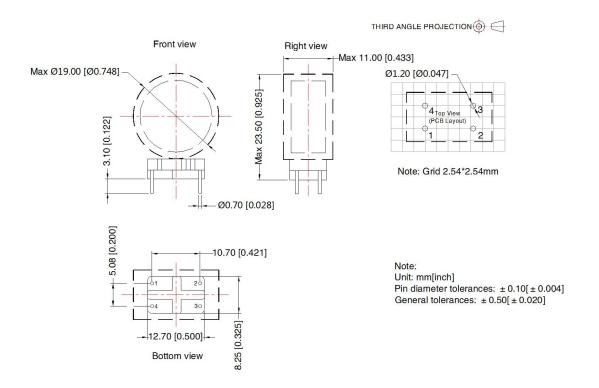


Fig. 2

THIRD ANGLE PROJECTION

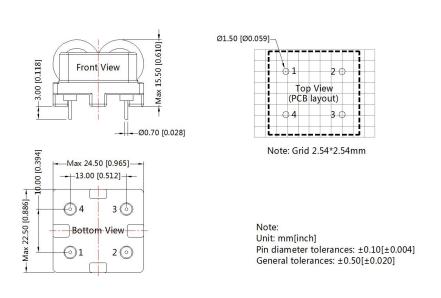
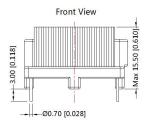
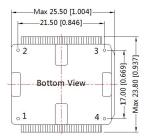
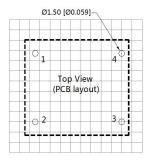


Fig. 3









Note: Grid 2.54\*2.54mm

Note: Unit: mm[inch] Pin diameter tolerances:  $\pm 0.10[\pm 0.004]$  General tolerances:  $\pm 0.50[\pm 0.020]$ 

Fig. 4

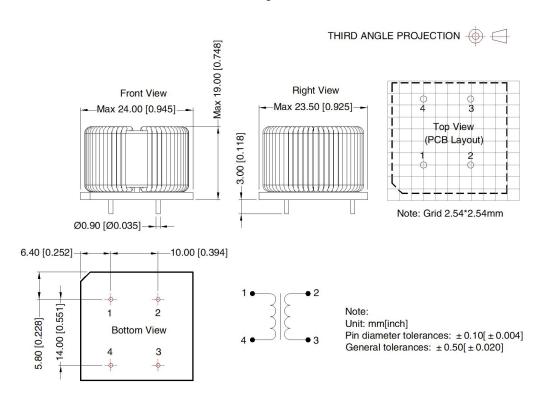


Fig. 5

THIRD ANGLE PROJECTION

#### Right View Front View -Max 15.00 [0.591] Max 18.00 [0.709] 9.00 [0.354] - Max 17.00 [0.669] 4Top View 3 (PCB Layout) High temperature tape 3.50 [0.138] Note: Grid 2.54\*2.54mm 10.00 [0.394] Ø0.90 [Ø0.035]-10.00 [0.394] • 2 Note: Unit: mm[inch] 2 Pin diameter tolerances: $\pm 0.10[\pm 0.004]$ **Bottom View** General tolerances: $\pm 0.50[\pm 0.020]$ 3

Fig. 6

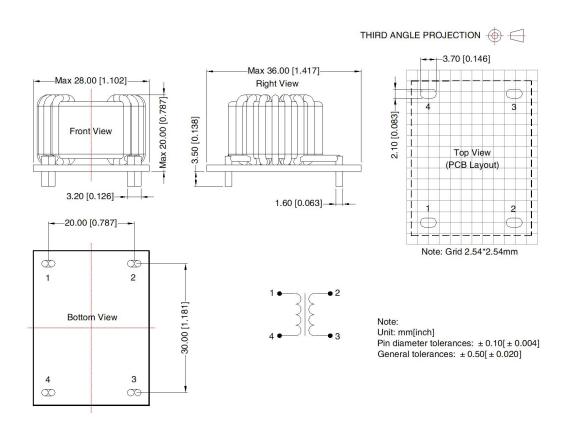
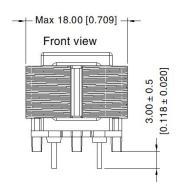
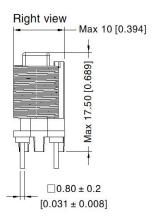
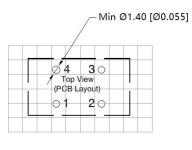


Fig. 7

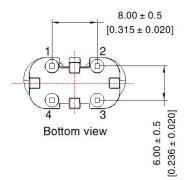








Note: Grid 2.54\*2.54mm



Note:

Unit: mm[inch]

Pin diameter tolerances:  $\pm 0.20[\pm 0.008]$ General tolerances:  $\pm 0.50[\pm 0.020]$ 

Fig. 8

#### Note:

- For additional information on Product Packaging please refer to <a href="https://www.mornsun-power.com">www.mornsun-power.com</a>. Packaging bag number: 58200055 (FL2D-10-682/FL2D-10-822/FL2D-30-103/FL2D-A2-202), 58210146(FL2D-60-402), 58210147(FL2D-60-451), 58220135(FL2D-D0-040), 58220123 (FL2D-10-203) \( \times \) 58220018(Others);
- Unless otherwise specified, data in this data sheet should be tested under the conditions of Ta=25°C, humidity<75%RH;</li>
- 3. All index testing methods in this datasheet are based on company corporate standards;
- 4. The performance indexes of the product models listed in this manual are as above, but some indexes of non-standard model products will exceed the above-mentioned requirements, and please directly contact our technicians for specific information;
- 5. We can provide product customization service, please contact our technicians directly for specific information;
- 6. Products are related to laws and regulations: see "Features";
- 7. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

# Mornsun Guangzhou Science & Technology Co., Ltd.

Address: No. 5, Kehui St. 1, Kehui Development Center, Science Ave., Guangzhou Science City, Huangpu District, Guangzhou, P. R. China Tel: 86-20-38601850 Fax: 86-20-38601272 E-mail: <a href="mailto:info@mornsun.cn">info@mornsun.cn</a> <a href="mailto:www.mornsun-power.com">www.mornsun-power.com</a>

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