

**A FEATURES**

- Low leakage and minimal noise thanks to the toroidal core made of iron powder
- Available for rated currents 0.5 A, 1 A, 3 A and 5 A
- Operating Temperature range from -40°C to +105°C (Including Self-heating)
- Custom design on request



**B PART NUMBER SYSTEM**

1MS    10    -    101    F  
 ①        ②        ③        ④

①	Series	②	IR Code	
1MS	Series Code		05(0.5A)	10(1.0A)
			30(3.0A)	50(5.0A)
③	Full Load Inductance Code	④	RoHS Compliant	
e.g.	Calculation			
2R2	2.2μH			
100	10×10 <sup>0</sup> μH = 10μH			
101	10×10 <sup>1</sup> μH = 100μH			

**C DRAWINGS AND DIMENSIONS**

Drawing (mm)	Schematic

## D SPECIFICATIONS

Part Number	L <sub>0</sub> <sup>1</sup>		L <sub>R</sub> <sup>2</sup>		DCR <sup>3</sup>	I <sub>R</sub> <sup>4</sup>	Dimensions(mm)			
	μH	Tolerance	μH	Tolerance	Max.(Ω)	Amp	A <sub>ref</sub>	B <sub>ref</sub>	C <sub>ref</sub>	D <sub>ref</sub>
1MS05-470F	50	±20%	47	±10%	0.18	0.5	15.0	8.0	7.0	0.3
1MS05-680F	73	±20%	68	min.	0.23	0.5	15.0	8.0	7.0	0.3
1MS05-101F	109	±20%	100	min.	0.30	0.5	15.0	8.0	7.0	0.3
1MS05-151F	167	±20%	150	min.	0.40	0.5	17.5	8.0	7.0	0.3
1MS05-221F	258	±20%	220	min.	0.40	0.5	17.5	8.0	7.0	0.3
1MS05-331F	393	±20%	330	min.	0.70	0.5	17.5	8.0	7.0	0.3
1MS05-471F	557	±20%	470	min.	0.70	0.5	22.5	12.0	10.5	0.3
1MS10-330F	37	±20%	33	min.	0.06	1.0	15.5	8.5	7.5	0.5
1MS10-470F	53	±20%	47	min.	0.08	1.0	17.0	9.5	7.5	0.5
1MS10-680F	80	±20%	68	min.	0.10	1.0	17.0	9.5	7.5	0.5
1MS10-101F	127	±20%	100	min.	0.12	1.0	18.0	9.0	7.5	0.5
1MS10-151F	200	±20%	150	min.	0.18	1.0	18.0	9.0	7.5	0.5
1MS10-221F	345	±20%	220	min.	0.20	1.0	18.5	9.5	8.0	0.5
1MS10-331F	390	±20%	330	min.	0.25	1.0	23.0	12.5	11.0	0.5
1MS10-471F	600	±20%	470	min.	0.33	1.0	30.0	14.0	12.5	0.5
1MS10-681F	890	±20%	680	min.	0.40	1.0	30.0	14.0	13.0	0.5
1MS10-102F	1619	±20%	1000	min.	0.48	1.0	30.0	14.5	12.5	0.5
1MS30-220F	34	±20%	22	min.	0.04	3.0	17.0	11.0	8.0	0.8
1MS30-330F	49	±20%	33	min.	0.05	3.0	21.0	9.5	8.5	0.8
1MS30-470F	75	±20%	47	min.	0.05	3.0	24.0	13.0	11.5	0.8
1MS30-680F	92	±20%	68	min.	0.05	3.0	31.0	13.5	10.0	0.8
1MS30-101F	157	±20%	100	min.	0.06	3.0	31.0	15.0	13.0	0.7
1MS30-221F	346	±20%	220	±20%	0.14	3.0	31.0	15.0	13.0	0.7
1MS30-301F	630	±20%	300	±20%	0.18	3.0	31.0	15.0	13.0	0.7
1MS30-471F	727	±20%	470	±20%	0.24	3.0	42.0	15.0	13.0	0.7
1MS30-681F	1124	±20%	680	±20%	0.28	3.0	44.0	18.5	16.0	0.7
1MS50-8R0F	12	±20%	8	min.	0.01	5.0	28.5	14.5	12.0	1.2
1MS50-220F	26	±20%	22	min.	0.02	5.0	28.5	14.5	12.0	1.2
1MS50-330F	48	±20%	33	min.	0.03	5.0	30.0	12.0	10.0	1.0
1MS50-470F	82	±20%	47	min.	0.03	5.0	30.0	12.0	10.0	1.0
1MS50-680F	137	±20%	68	min.	0.05	5.0	32.0	15.5	13.0	1.0
1MS50-101F	172	±20%	100	±20%	0.06	5.0	32.0	15.5	13.0	1.0
1MS50-151F	220	±20%	150	±20%	0.06	5.0	43.0	15.0	13.0	1.1
1MS50-221F	380	±20%	220	±20%	0.07	5.0	44.0	15.5	13.5	1.0

1. L<sub>0</sub> measured @ 100KHz, 0.3V at 25°C temperature.

2. L<sub>R</sub> measured @ 100KHz, 0.3V with bias current of I<sub>R</sub>.

3. DCR measured @ 25°C.

4. I<sub>R</sub> for an approximate 40°C rise from 25°C ambient temperature.

5. Specifications subject to change without notice please check our website for latest information.