

## FEATURES

The MCD series power inductors have low DC resistance and large permissible DC current with high reliability.

The MCD series has high saturation magnetic-flux density and high efficiency.

## APPLICATIONS

For the smoothing circuit of DC-DC converter, as a choke coil or chopper coil.

Suitable for use in power lines of camcorder, LCD set, OA equipment, notebook computer, PDA, and small size communication equipment.

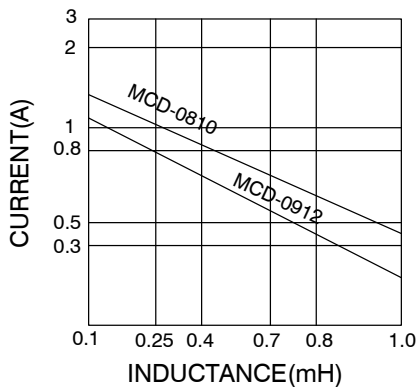
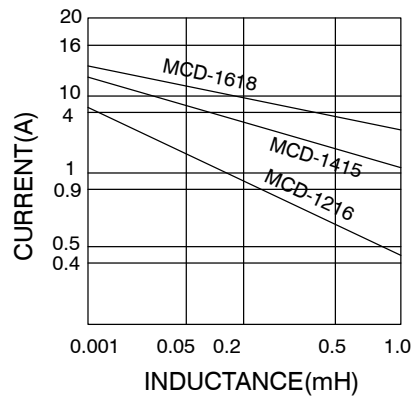
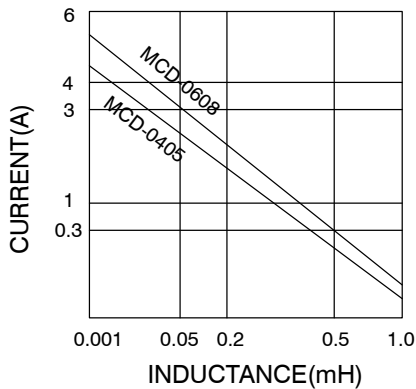
## PRODUCT IDENTIFICATION

①      ②      ③      ④      ⑤      ⑥

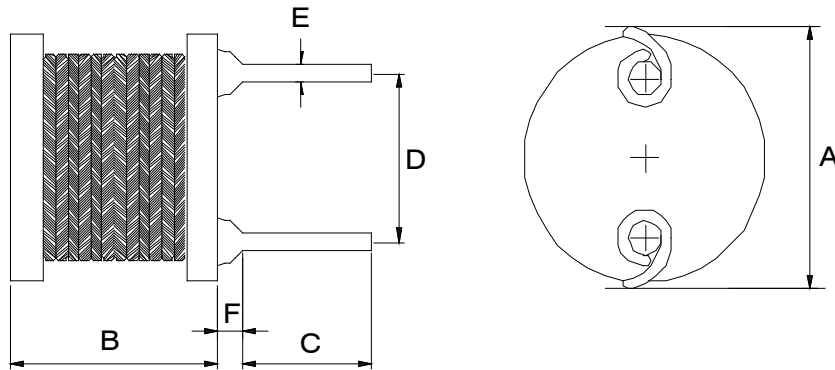
MCD - 0405 - 101   K   U   □ □

- ① Product Code
- ② Core Dimensions
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ UL Tube
- ⑥ Pattern Code

## TYPICAL ELECTRICAL CHARACTERISTICS



■ PRODUCT SERIES



TYPE	DIMENSIONS (mm)					
	A	B	C	D	E	F
MCD-0405	5.0 Max.	6Max.	15±2	2±0.5	0.5±0.1	2.0 Max.
MCD-0608	7.8 Max.	8.5Max.	15±2	3±0.5	0.65±0.1	2.0 Max.
MCD-0810	10.5 Max.	10.5Max.	15±2	5±0.5	0.65±0.1	2.5 Max.
MCD-0912	11.0 Max.	12.5Max.	15±2	5±0.5	0.8±0.1	2.5 Max.
MCD-1216	15.0 Max.	16.5Max.	15±2	7.5±0.5	0.8±0.1	2.5 Max.
MCD-1415	17.0 Max.	15.5Max.	15±2	7.5±0.5	1.0±0.1	3.0 Max.
MCD-1618	19.0 Max.	18.5Max.	15±2	10±1.0	1.0±0.1	3.0 Max.

## ■ PRODUCT SPECIFICATIONS

Part No.	Inductance (μH)	Test Frequency	DC Resistance (Ω) Max.							Permissible DC Current (A) Max.						
			0405	0608	0810	0912	1216	1415	1618	0405	0608	0810	0912	1216	1415	1618
1R0	1.0	100KHz	0.021							4.5						
1R2	1.2		0.030							4.0						
1R5	1.5		0.034							3.6						
1R8	1.8		0.037							3.3						
2R2	2.2		0.040							3.0						
2R7	2.7		0.045							2.7						
3R3	3.3		0.058							2.5						
3R9	3.9		0.066							2.3						
4R7	4.7		0.072							2.2						
5R6	5.6		0.081							2.0						
6R8	6.8		0.087							1.8						
8R2	8.2		0.108							1.6						
100	10		0.124		0.026		0.019	0.017		1.5		5.00			14	
120	12		0.160	0.16						1.3	1.35					
150	15		0.187	0.19			0.023	0.021		1.2	1.30				10	
180	18		0.219	0.25						1.1	1.25					
220	22		0.295	0.30			0.029	0.026	0.031	1.0	1.15				8.8 14.0	
270	27		0.330	0.40	0.0825		0.031	0.028	0.035	0.90	1.10	3.70			8.3 13.5	
330	33		0.375	0.55			0.034	0.034	0.037	0.85	1.05				7.8 13.0	
390	39		0.460	0.59			0.039	0.038	0.052	0.80	1.00				7.3 12.5	
470	47		0.540	0.61			0.051	0.046	0.056	0.70	0.95				6.7 11.5	
560	56		0.664	0.63			0.056	0.051	0.058	0.60	0.90				6.2 11.0	
680	68		0.819	0.65			0.061	0.055	0.062	0.55	0.83				5.7 9.2	
820	82		1.431	0.68			0.064	0.058	0.076	0.50	0.78				5.2 8.7	
101	100		1.105	0.74	0.26	0.16	0.15	0.075	0.108	0.46	0.70	1.4	1.70	2.40	4.6 7.7	
121	120		1.515	0.76	0.31	0.20	0.20	0.100	0.132	0.41	0.62	1.3	1.50	2.10	4.2 7.0	
151	150		1.770	0.80	0.38	0.24	0.23	0.125	0.152	0.37	0.57	1.1	1.40	1.90	3.7 6.5	
181	180		1.725	0.85	0.44	0.31	0.28	0.141	0.163	0.35	0.53	1.0	1.30	1.75	3.5 6.0	
221	220		1.753	0.89	0.50	0.34	0.31	0.208	0.216	0.32	0.49	0.9	1.10	1.60	3.0 5.5	
271	270		3.036	1.01	0.60	0.40	0.40	0.240	0.253	0.28	0.45	0.83	1.00	1.45	2.7 5.0	
331	330	3.432	1.08	0.78	0.52	0.46	0.272	0.270	0.25	0.41	0.78	0.93	1.30	2.5 4.4		
391	390	3.864	1.32	0.85	0.65	0.58	0.303	0.341	0.23	0.37	0.70	0.86	1.15	2.3 3.9		
471	470	4.368	1.45	1.08	0.71	0.70	0.342	0.390	0.20	0.32	0.63	0.78	1.00	2.1 3.6		
561	560	5.664	1.60	1.19	1.00	0.90	0.531	0.425	0.20	0.29	0.6	0.71	0.95	1.8 3.3		
681	680	6.480	1.85	1.59	1.10	1.00	0.590	0.565	0.18	0.26	0.55	0.65	0.90	1.7 2.9		
821	820	7.296	2.00	1.88	1.30	1.50	0.728	0.700	0.16	0.22	0.50	0.59	0.80	1.5 2.7		
102	1000	10.20	2.30	2.30	1.70	1.60	0.750	0.881	0.14	0.20	0.45	0.53	0.75	1.4 2.5		

Tolerance of inductance: 1.0~82 μH: ±20% (M) 100~1000 μH: ±10% (K)

The max. permissible DC current is the DC current applied which causes 10% reduction of its initial inductance value, or the coil temperature to rise by 40°C (Ta=20°C), whichever is lower.