

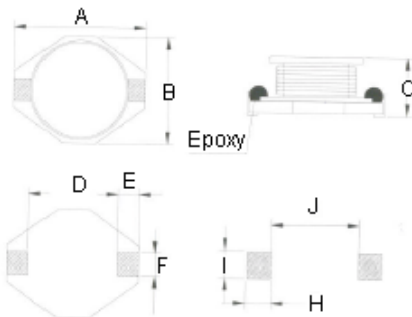


## Features:

- High power, high saturation inductors.
- Ideal inductors for DC-DC converters in notebook computer, PDAs, step-up or step-down converters, flash memory programmers etc.
- MCPD1608 used ceramic base with gold-plating.
- The others used LCP plastic base.

## Applications

- Portable telephones.
- Personal computers.
- DC/DC converters, etc.
- Other various electronic appliances.



## Dimensions

Type	A Maximum	B Maximum	C Maximum	D	E	F	H	I	J
MCPD1608	6.60	4.45	2.92	4.32	1.27	1.02	3.56	1.40	4.06
MCPD1813	8.89	6.10	4.70	5.00	2.00	1.50	3.50	2.20	4.80
MCPD3308	12.95	9.40	3.00	7.62	2.54	2.54	2.79	2.92	7.37
MCPD3316	12.95	9.40	5.21	7.62	2.54	2.54	2.79	2.92	7.37
MCPD3340	12.95	9.40	11.43	7.62	2.54	2.54	2.79	2.92	7.37
MCPD5022	18.54	15.24	7.11	12.7	2.54	2.54	2.79	2.92	12.45

Unit : mm

## Inductance and Rated Current Ranges

MCPD1608	1.0 $\mu$ H to 1000 $\mu$ H	2.9 to 0.10A
MCPD1813	0.18 $\mu$ H to 100 $\mu$ H	14 to 0.53A
MCPD3308	4.7 $\mu$ H to 1000 $\mu$ H	4.2 to 0.29A
MCPD3316	1.0 $\mu$ H to 1000 $\mu$ H	9.0 to 0.30A
MCPD3340	0.47 $\mu$ H to 1000 $\mu$ H	40 to 0.8A
MCPD5022	1.0 $\mu$ H to 1000 $\mu$ H	20 to 1.0A

Electrical Specifications at 25°C

## Characteristics

Saturation rated current : The current when the inductance becomes 10% lower than its initial value. (Ta = 25°C).  
 Operating temperature range : -40 to 85°C.

## Product Identification

**MC**

**PD**

Product  
Type

**1608**

Dimensions  
(A x B x C)

1608: 6.60 x 4.45 x 2.92  
 1813: 8.89 x 6.1 x 4.7  
 3308: 12.95 x 9.40 x 3.00  
 3316: 12.95 x 9.40 x 5.21  
 3340: 12.95 x 9.40 x 11.43  
 5022: 18.54 x 15.24 x 7.11

**M**

Inductor  
Tolerance

M: ±20%  
 N: ±30%

**T**

Packaging  
Style

T: Tape and Reel

**101**

Inductance

1R1: 1.1µH  
 470: 47µH  
 101: 100µH

## Electrical Characteristics

### MCPD1608 Type

Codes	L (µH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
1R0	1.0	M	100KHz, 0.1V	0.05	2.90
1R5	1.5	M	100KHz, 0.1V	0.06	2.60
2R2	2.2	M	100KHz, 0.1V	0.07	2.30
3R3	3.3	M	100KHz, 0.1V	0.08	2.00
4R7	4.7	M	100KHz, 0.1V	0.09	1.50
6R8	6.8	M	100KHz, 0.1V	0.13	1.20
8R2	8.2	M	100KHz, 0.1V	0.16	1.15
100	10	M	100KHz, 0.1V	0.16	1.10
150	15	M	100KHz, 0.1V	0.23	0.90
220	22	M	100KHz, 0.1V	0.37	0.70
330	33	M	100KHz, 0.1V	0.51	0.58
470	47	M	100KHz, 0.1V	0.64	0.50
680	68	M	100KHz, 0.1V	0.86	0.40
101	100	M	100KHz, 0.1V	1.27	0.31
151	150	M	100KHz, 0.1V	2.00	0.27
221	220	M	100KHz, 0.1V	3.11	0.22
331	330	M	100KHz, 0.1V	3.80	0.18
471	470	M	100KHz, 0.1V	5.06	0.16
681	680	M	100KHz, 0.1V	9.20	0.14
102	1000	M	100KHz, 0.1V	13.8	0.10

## Electrical Characteristics

### MCPD1813 Type

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
R18	0.18	N	100KHz, 0.1V	0.007	14.0
R33	0.33	N	100KHz, 0.1V	0.008	10.0
R56	0.56	N	100KHz, 0.1V	0.010	7.7
1R2	1.2	N	100KHz, 0.1V	0.017	5.3
2R2	2.2	N	100KHz, 0.1V	0.035	3.5
3R3	3.3	N	100KHz, 0.1V	0.040	3.0
4R7	4.7	N	100KHz, 0.1V	0.064	2.6
6R8	6.8	N	100KHz, 0.1V	0.080	2.2
100	10	M	100KHz, 0.1V	0.111	1.9
150	15	M	100KHz, 0.1V	0.170	1.5
220	22	M	100KHz, 0.1V	0.250	1.2
330	33	M	100KHz, 0.1V	0.350	0.99
470	47	M	100KHz, 0.1V	0.470	0.87
680	68	M	100KHz, 0.1V	0.730	0.67
101	100	M	100KHz, 0.1V	1.110	0.53

### MCPD3308 Type

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
4R7	4.7	M	100KHz, 0.1V	0.036	4.20
6R8	6.8	M	100KHz, 0.1V	0.060	3.90
100	10	M	100KHz, 0.1V	0.085	2.70
150	15	M	100KHz, 0.1V	0.12	2.30
220	22	M	100KHz, 0.1V	0.18	1.80
330	33	M	100KHz, 0.1V	0.25	1.60
470	47	M	100KHz, 0.1V	0.32	1.30
680	68	M	100KHz, 0.1V	0.54	1.10
101	100	M	100KHz, 0.1V	0.69	0.87
151	150	M	100KHz, 0.1V	0.94	0.74
221	220	M	100KHz, 0.1V	1.60	0.56
331	330	M	100KHz, 0.1V	2.15	0.50
471	470	M	100KHz, 0.1V	3.30	0.40
681	680	M	100KHz, 0.1V	4.40	0.33
102	1000	M	100KHz, 0.1V	7.00	0.29

## Electrical Characteristics

### MCPD3316 Type

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
1R0	1.0	M	100KHz, 0.1V	0.009	9.00
1R5	1.5	M	100KHz, 0.1V	0.010	8.00
2R2	2.2	M	100KHz, 0.1V	0.012	7.00
3R3	3.3	M	100KHz, 0.1V	0.015	6.40
4R7	4.7	M	100KHz, 0.1V	0.018	5.40
6R8	6.8	M	100KHz, 0.1V	0.027	4.60
100	10	M	100KHz, 0.1V	0.038	3.80
150	15	M	100KHz, 0.1V	0.046	3.00
220	22	M	100KHz, 0.1V	0.085	2.60
330	33	M	100KHz, 0.1V	0.100	2.00
470	47	M	100KHz, 0.1V	0.140	1.60
680	68	M	100KHz, 0.1V	0.200	1.40
101	100	M	100KHz, 0.1V	0.280	1.20
151	150	M	100KHz, 0.1V	0.400	1.00
221	220	M	100KHz, 0.1V	0.610	0.80
331	330	M	100KHz, 0.1V	1.020	0.60
471	470	M	100KHz, 0.1V	1.270	0.50
681	680	M	100KHz, 0.1V	2.020	0.40
102	1000	M	100KHz, 0.1V	3.000	0.30

### MCPD3340 Type

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
R47	0.47	N	100KHz, 0.1V	0.008	40.0
R82	0.82	N	100KHz, 0.1V	0.009	34.7
1R2	1.2	N	100KHz, 0.1V	0.010	28.4
1R5	1.5	N	100KHz, 0.1V	0.010	25.7
2R2	2.2	N	100KHz, 0.1V	0.012	23.0
3R5	3.5	N	100KHz, 0.1V	0.015	21.0
4R7	4.7	N	100KHz, 0.1V	0.020	18.0
5R6	5.6	N	100KHz, 0.1V	0.022	16.0
6R8	6.8	N	100KHz, 0.1V	0.030	15.0
8R2	8.2	N	100KHz, 0.1V	0.033	10.0

## Electrical Characteristics

### MCPD3340 Type

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
100	10	M	100KHz, 0.1V	0.040	8.00
150	15	M	100KHz, 0.1V	0.050	7.00
220	22	M	100KHz, 0.1V	0.066	5.50
330	33	M	100KHz, 0.1V	0.080	4.00
470	47	M	100KHz, 0.1V	0.11	3.80
680	68	M	100KHz, 0.1V	0.17	3.00
101	100	M	100KHz, 0.1V	0.22	2.50
151	150	M	100KHz, 0.1V	0.34	2.00
221	220	M	100KHz, 0.1V	0.44	1.60
331	330	M	100KHz, 0.1V	0.70	1.20
471	470	M	100KHz, 0.1V	0.95	1.00
681	680	M	100KHz, 0.1V	1.20	1.00
102	1000	M	100KHz, 0.1V	2.00	0.80

### MCPD5022 Type

Codes	L (μH)	Tolerance	Test Condition	DCR (Ω) Maximum	IDC (A) Maximum
1R0	1.0	M	100KHz, 0.1V	0.009	20
2R2	2.2	M	100KHz, 0.1V	0.014	16
3R3	3.3	M	100KHz, 0.1V	0.018	14
5R6	5.6	M	100KHz, 0.1V	0.020	12
100	10	M	100KHz, 0.1V	0.031	10
150	15	M	100KHz, 0.1V	0.036	8.0
220	22	M	100KHz, 0.1V	0.047	7.0
330	33	M	100KHz, 0.1V	0.066	5.5
470	47	M	100KHz, 0.1V	0.095	4.5
680	68	M	100KHz, 0.1V	0.130	3.5
101	100	M	100KHz, 0.1V	0.190	3.0
151	150	M	100KHz, 0.1V	0.250	2.6

## Electrical Characteristics

### MCPD5022 Type

Codes	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) Maximum	IDC (A) Maximum
221	220	M	100KHz, 0.1V	0.380	2.4
331	330	M	100KHz, 0.1V	0.560	1.9
471	470	M	100KHz, 0.1V	0.850	1.4
681	680	M	100KHz, 0.1V	1.100	1.2
102	1000	M	100KHz, 0.1V	1.800	1.0

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