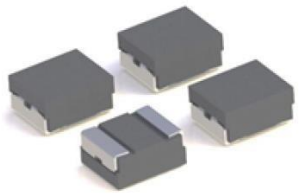
Product List

Part No.	Dimensions	Inductance range	DCR range	Heating Rating Current	Saturation Current	Page
	L x W x H(Max.)	(μH)	DCR (mΩ)	Idc (A)	Isat (A)	
MPC201610	2.2x1.8x1.0	0.24 ~ 2.2	24 ~ 197	1.6 ~ 4.0	1.9 ~ 4.8	3
MPC252010	2.7x1.8x1.0	0.22 ~ 2.2	18 ~ 121	1.8 ~ 5.8	2.4 ~ 6.6	9
MPC252012	2.7x1.8x1.2	0.47 ~ 2.2	28 ~ 105	2.3 ~ 4.5	2.5 ~ 5.0	13
MPC3012	3.7x3.2x1.2	0.12 ~ 10.0	5.5 ~ 360	1.0 ~ 10	1.5 ~ 17	17
MPC3020	3.7x3.2x2.0	0.22 ~ 4.7	10 ~ 158	2.4 ~ 10	3.3 ~ 16	22
MPCA-4012	4.75x4.45x1.2	0.15 ~ 4.7	9 ~ 195	1.8 ~ 7.5	2.8 ~ 15	27
MPCA-4020	4.75x4.45x2.0	0.10 ~ 22.0	4 ~ 363	1.2 ~ 13.0	1.65 ~ 22	32
MPCA-5015	5.7x5.4x1.5	0.47 ~ 4.7	13 ~ 103	3.5 ~ 9.0	4.5 ~ 13	38
MPCA-0518	5.7x5.4x1.8	0.47 ~ 10.0	9 ~ 155	2.5 ~ 10.5	3.0 ~ 15.5	41
MPCA-0530	5.7x5.4x3.0	0.10 ~ 10.0	3 ~ 125	3.2 ~ 25	3.5 ~ 33	47
MPCA-0618	7.3x6.8x1.8	0.10 ~ 22.0	2.3 ~ 350	1.8 ~ 25	2.3 ~ 38	52
MPCA-0624	7.3x6.8x2.4	0.22 ~ 22.0	3.0 ~ 230	2.0 ~ 21	2.5 ~ 34	57
MPCA-0630	7.3x6.8x3.0	0.10 ~ 33.0	1.2 ~ 310	2.0 ~ 32	2.5 ~ 56	62
MPCA-0640	7.3x6.8x4.0	0.36 ~ 10.0	1.8 ~ 65	5.0 ~ 24	5.0 ~ 25	69
LPCA-1040	11.5x10.3x4.0	0.15 ~ 100	0.65 ~ 350	2.2 ~ 45	2.3 ~ 75	72
LPCA-1350	13.8x12.9x5.0	0.22 ~ 47	0.7 ~ 130	3.0 ~ 55	5.0 ~ 75	79
LPCA-1770	17.45x17.15x7.0	1.0 ~ 100	1.5 ~ 130	4.0 ~ 42	4.5 ~ 62	85

High Current, Power Inductors

MPC201610-XXX-M Power Choke



Description

- Halogen Free
- 125°C maximum total temperature operation
- 2.2x1.8x 1.0mm maximum surface mount package
- Powder iron core material
- Magnetically shielded, low EMI
- High current carrying capacity, Low core losses
- Inductance range from 0.24μH to 2.2μH
- Current range from 1.9 to 4.8 Amps
- Frequency range up to 5MHz
- RoHS compliant

Applications

- Voltage Regulator Module (VRM)
- Multi-phase regulators
- Point-of-load modules
- Smart phone POL modules
- SSD modules
- Notebook regulators
- Battery power systems
- Graphics cards
- Data networking and storage systems

Environmental Data

- Storage temperature range: -55℃ to +125 ℃
- Operating temperature range: -55℃ to +125℃ (ambient plus self-temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Description		
MPC201610-1R5-M	1.5μH	±20 %
Model	Inductance Value	Inductance Tolerance

Global Part Number

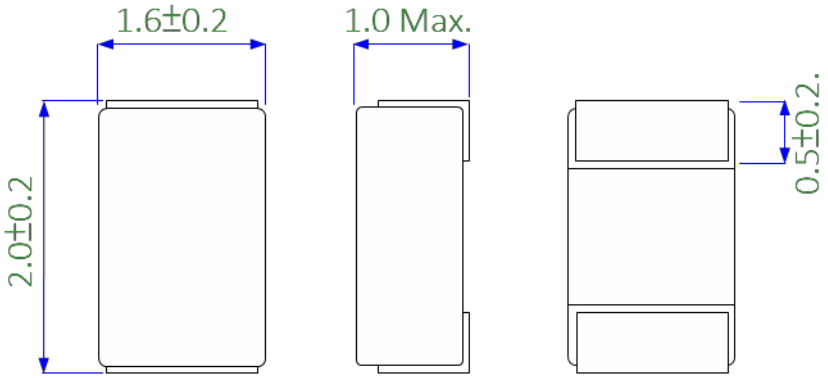
M P C	2 0 1 6 1 0	1 R 5	M
Product Series	Dimensions	Inductance	Value Tol.

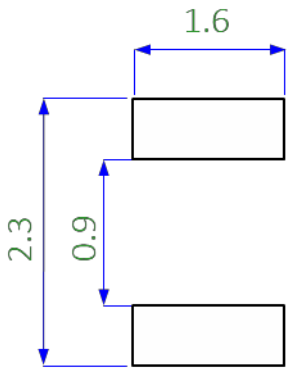
Part No.	Inductance	DC Resistance	Heating Rating Current	Saturation Current
	L0 (μH)	DCR (mΩ)	Idc (A)	Isat (A)
	±20 %, 1MHz, 1V	MAX.	TYP.	TYP.
MPC201610-R24M	0.24	24	4.0	4.8
MPC201610-R33M	0.33	36	3.4	4.2
MPC201610-R47M	0.47	46	2.7	3.56
MPC201610-R68M	0.68	66	2.4	3.2
MPC201610-1R0M	1.00	78	2.1	2.7
MPC201610-1R5M	1.50	137	1.8	2.2
MPC201610-2R2M	2.20	197	1.6	1.9

Notes

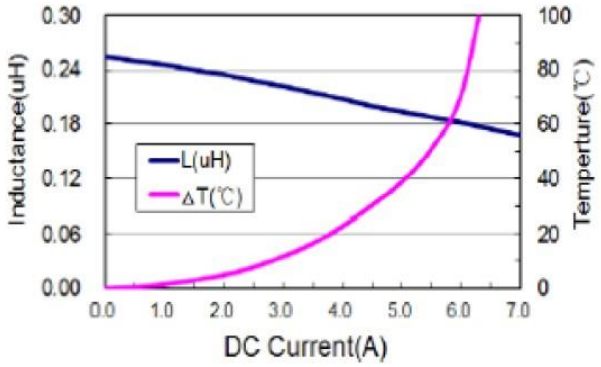
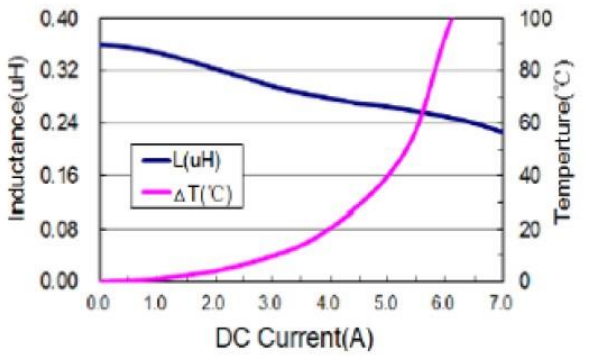
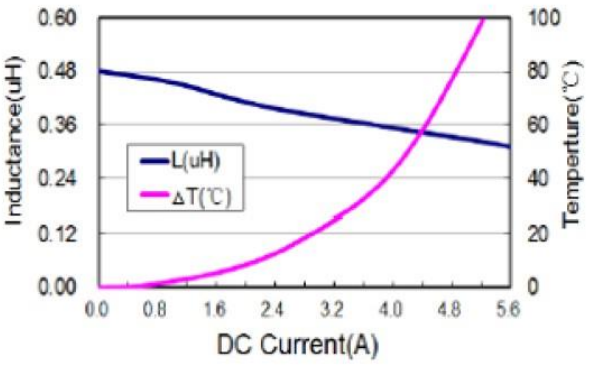
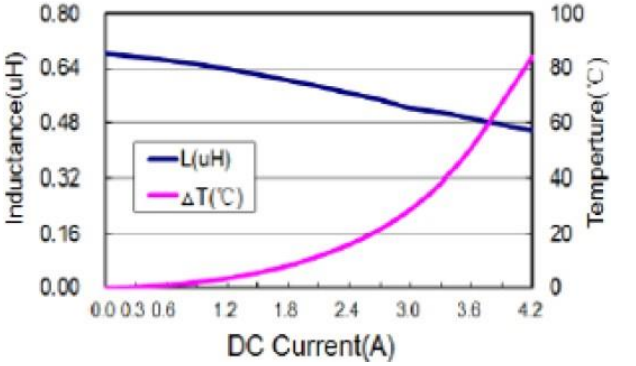
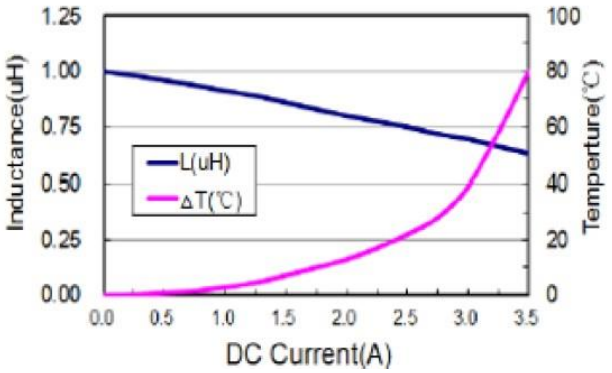
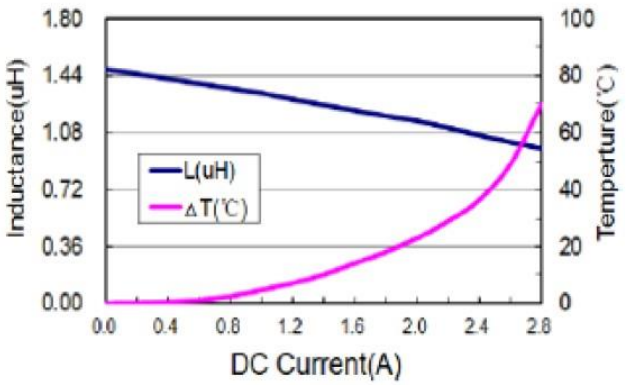
1. All test data is referenced to 25 ℃ ambient
2. Operating temperature range - 55 ℃ to + 125 ℃
3. Idc(A):DC current (A) that will cause an approximate ΔT of 40 ℃(reference ambient temperature is 25 ℃)
4. Isat(A):DC current (A) that will cause L0 to dropapproximately30 %
5. The part temperature (ambient + temp rise) should not exceed 125 ℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

•Dimensions-mm





Recommend Land Pattern Dimensions

Performance Graphs	
Test Instruments	Test Condition
Agilent E4980A Precision LCR Meter E4980A With HP42841A Current Source	Temperature: 26 ± 3℃ Humidity: < 70% RH Frequency: 1MHz, 1.0V
MPC201610-R24M 	MPC201610-R33M 
MPC201610-R47M 	MPC201610-R68M 
MPC201610-1R0M 	MPC201610-1R5M 

MPC201610-2R2M