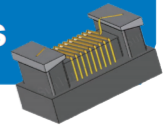


Wire Wound Chip Power Inductor – MWPH Series



Operating Temp ◆ $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Features

- ◆ Small chip suitable for surface mounting
- ◆ Large inductance with ferrite/alloy material
- ◆ Semi-magnetic shielded

Applications ◆ Mobile phones, TWS headsets, smart watches and other portable devices

Product Identification

1 MWPH	2 1005	3 A	4 1R0	5 M	6 T	7 □□□
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1 Type	
MWPH	Wire Wound Chip Power Inductor

2 External Dimensions (L×W) (mm)	
1005	1.1×0.6
1210	1.2×1.0
1412	1.4×1.2
1608	1.60×0.9/1.65×1.0

3 Material Code	
F	Ferrite
A	Alloy

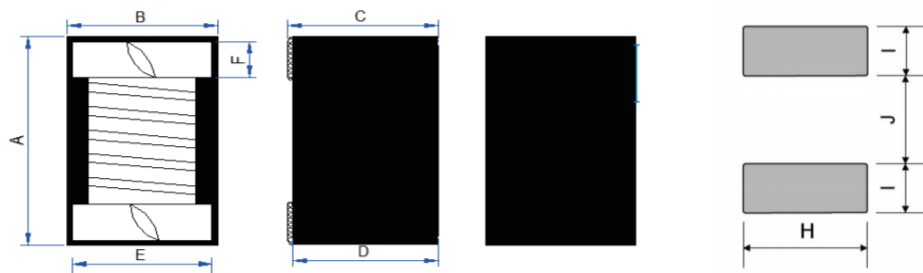
4 Nominal Inductance	
Example	Nominal Value
R33	0.33μH
1R0	1.0μH
4R7	4.7μH
100	10μH
220	22μH

6 Packing	
T	Tape & Reel

5 Inductance Tolerance	
M	±20%

7 Design Code	
□□□	Design Code
*Standard product is blank	

Shape and Dimensions



Unit: mm

Series	A	B	C	D Typ.	E Ref.	F Ref.	H Ref.	I Ref.	J Ref.
MWPH1005A	1.10±0.10	0.60±0.10	0.60±0.10	0.20	0.50	0.20	0.60	0.35	0.50
MWPH1210A	1.20±0.20	1.00±0.20	0.60 Max.	0.15	0.90	0.25	1.20	0.55	0.40
MWPH1412A	1.40±0.20	1.20±0.20	0.65 Max.	0.20	1.00	0.30	1.30	0.60	0.50
MWPH1608F	1.65±0.15	1.00±0.15	1.00±0.15	0.30	0.80	0.30	1.00	0.50	0.83
MWPH1005F-A01	1.10±0.10	0.60±0.10	0.60 Max.	0.16	0.50	0.20	0.60	0.35	0.50
MWPH1005F-A02	1.10±0.10	0.60±0.10	0.50 Max.	0.16	0.50	0.20	0.65	0.30	0.50
MWPH1608F-A01	1.60±0.15	0.90±0.15	0.60 Max.	0.16	0.76	0.30	1.00	0.50	0.83
MWPH1608F-A02	1.60±0.20	0.90±0.20	0.50 Max.	0.16	0.85	0.30	1.00	0.50	0.83

Specifications

MWP1005A TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir	Isat
MWPH1005A1R0MT	1.0	±20%	1.0	170	1.0	380	850
MWPH1005A2R2MT	2.2	±20%	1.0	75	1.5	330	650
MWPH1005A4R7MT	4.7	±20%	1.0	60	4.0	185	400
MWPH1005A100MT	10	±20%	1.0	30	7.5	135	300
MWPH1005A150MT	15	±20%	1.0	25	10.0	120	250

MWP1210A TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir	Isat
MWPH1210AR47MT	0.47	±20%	1.0	180	0.65	660	1500
MWPH1210A1R0MT	1.0	±20%	1.0	110	1.30	440	1000
MWPH1210A1R5MT	1.5	±20%	1.0	100	2.20	330	750

MWP1412A TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir	Isat
MWPH1412AR33MT	0.33	±20%	1.0	240	0.21	1050	2800
MWPH1412AR47MT	0.47	±20%	1.0	200	0.25	1050	2650

MWP1608F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir	Isat
MWPH1608F1R0MT	1.0	±20%	1.0	180	0.25	880	800
MWPH1608F1R5MT	1.5	±20%	1.0	140	0.28	850	650
MWPH1608F2R2MT	2.2	±20%	1.0	80	0.50	590	500
MWPH1608F4R7MT	4.7	±20%	1.0	48	0.75	490	350
MWPH1608F6R8MT	6.8	±20%	1.0	38	0.90	440	280
MWPH1608F100MT	10	±20%	1.0	30	1.20	400	250
MWPH1608F150MT	15	±20%	1.0	18	2.00	280	200
MWPH1608F220MT	22	±20%	1.0	20	3.00	220	170

MWP1005F-A01 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir	Isat
MWPH1005F2R2MTA01	2.2	±20%	1.0	125	2.50	300	190
MWPH1005F4R7MTA01	4.7	±20%	1.0	70	3.50	220	150
MWPH1005F100MTA01	10	±20%	1.0	35	5.00	150	100

Specifications

MWPH1005F-A02 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	I _r	I _{sat}
MWPH1005F2R2MTA02	2.2	±20%	1.0	150	2.50	300	190
MWPH1005F4R7MTA02	4.7	±20%	1.0	70	3.50	220	150

MWPH1608F-A01 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	I _r	I _{sat}
MWPH1608F2R2MTA01	2.2	±20%	1.0	100	1.50	300	350
MWPH1608F100MTA01	10	±20%	1.0	36	5.00	100	150

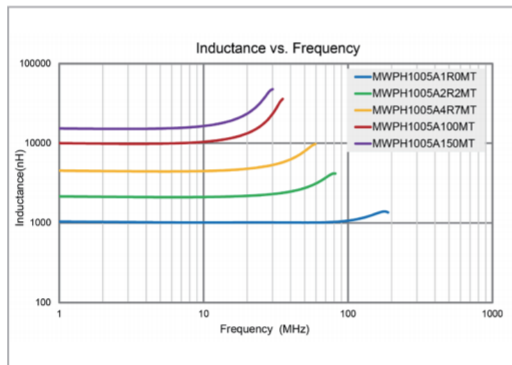
MWPH1608F-A02 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Heat Rating Current	Typ. Saturation Current
Units	μH	-	MHz	MHz	Ω	mA	mA
Symbol	L	-	Freq.	S.R.F	DCR	I _r	I _{sat}
MWPH1608F100MTA02	10	±20%	1.0	40	5.00	100	150

Typical Electrical Characteristics

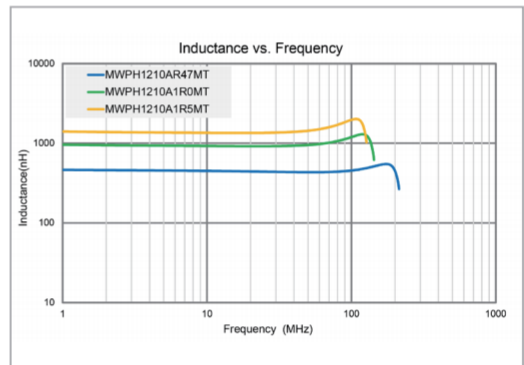
MWPH1005A TYPE

Inductance vs. Frequency Characteristics



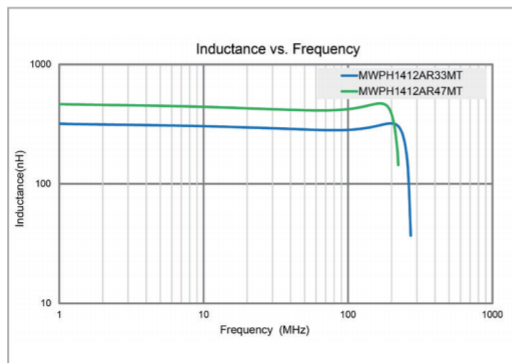
MWPH1210A TYPE

Inductance vs. Frequency Characteristics



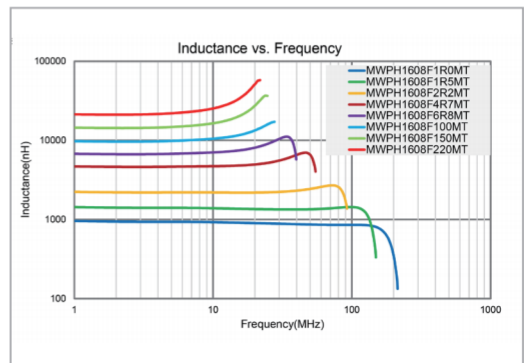
MWPH1412A TYPE

Inductance vs. Frequency Characteristics



MWPH1608F TYPE

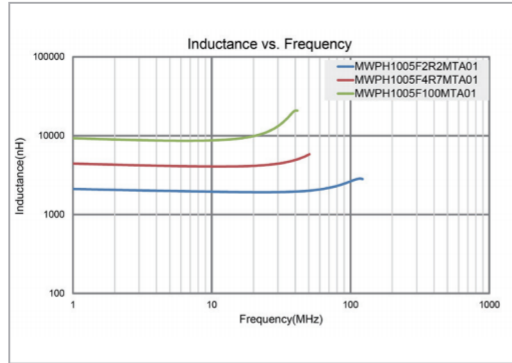
Inductance vs. Frequency Characteristics



Typical Electrical Characteristics

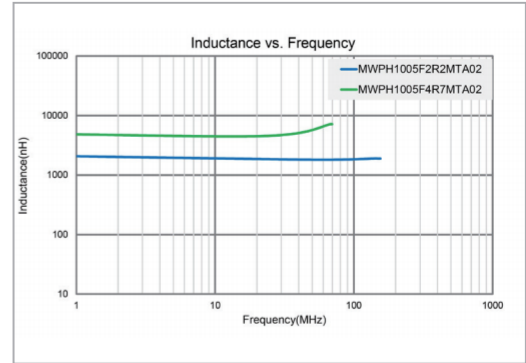
MWPH1005F-A01 TYPE

Inductance vs. Frequency Characteristics



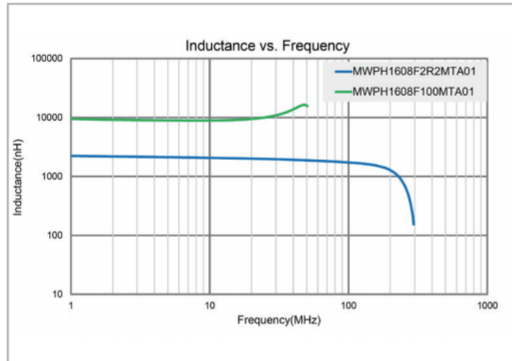
MWPH1005F-A02 TYPE

Inductance vs. Frequency Characteristics



MWPH1608F-A01 TYPE

Inductance vs. Frequency Characteristics



MWPH1608F-A02 TYPE

Inductance vs. Frequency Characteristics

