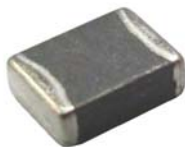


## Multilayer Power Inductors



Magnetic shielded for power line.

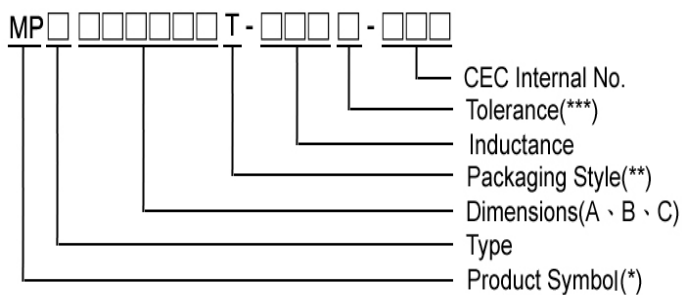
### Features

- RoHS compliant
- Small size
- Low profile
- High current
- Magnetically shielded configuration allowing for high density mounting.

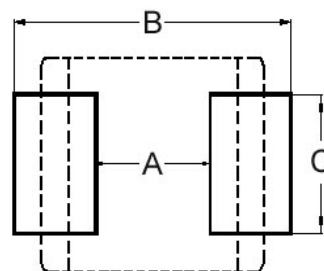
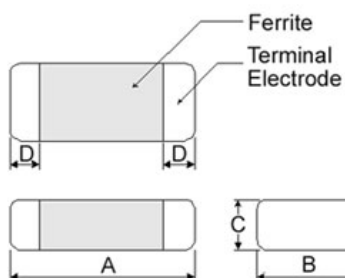
### Applications

DC-DC converters , Power modules, Cellular phones, DSC ,PND, DVD ,Wireless card and other electronic devices.

### Product Identification



- Product Symbol : MPA, MPB, MPC
- Type : A : General , B : Low RDC , C : High Saturated Current
- Packaging : T : Tape and Reel , B : Bulk
- Tolerance : M =  $\pm 20\%$  , T =  $\pm 30\%$



Dimensions in mm

TYPE	A	B	C	D
160808	1.6 $\pm$ 0.15	0.8 $\pm$ 0.15	0.8 $\pm$ 0.15	0.3 $\pm$ 0.2
201205	2.0 $\pm$ 0.20	1.25 $\pm$ 0.20	0.55 Max.	0.5 $\pm$ 0.3
201210	2.0 $\pm$ 0.20	1.25 $\pm$ 0.20	1.0 Max.	0.5 $\pm$ 0.3
201212	2.0 $\pm$ 0.20	1.25 $\pm$ 0.20	1.25 $\pm$ 0.20	0.5 $\pm$ 0.3
201610	2.0 $\pm$ 0.20	1.6 $\pm$ 0.20	1.0 Max.	0.5 $\pm$ 0.3
252010	2.5 $\pm$ 0.20	2.0 $\pm$ 0.20	1.0 Max.	0.5 $\pm$ 0.3
252012	2.5 $\pm$ 0.20	2.0 $\pm$ 0.20	1.2 Max.	0.5 $\pm$ 0.3

Dimensions in mm

TYPE	A	B	C
160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
201205	0.8 ~ 1.2	2.3 ~ 2.9	1.0 ~ 1.4
201210	0.8 ~ 1.2	2.3 ~ 2.9	1.0 ~ 1.4
201212	0.8 ~ 1.2	2.3 ~ 2.9	1.0 ~ 1.4
201610	0.8 ~ 1.2	2.1 ~ 2.7	1.6 ~ 2.0
252010	1.3 ~ 1.9	2.7 ~ 3.5	2.0 ~ 2.6
252012	1.3 ~ 1.9	2.7 ~ 3.5	2.0 ~ 2.6

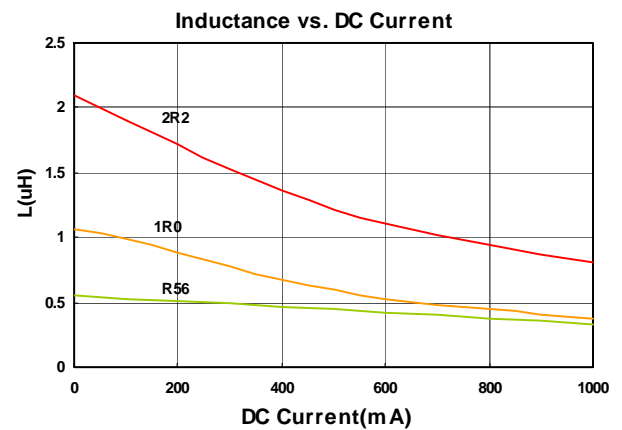
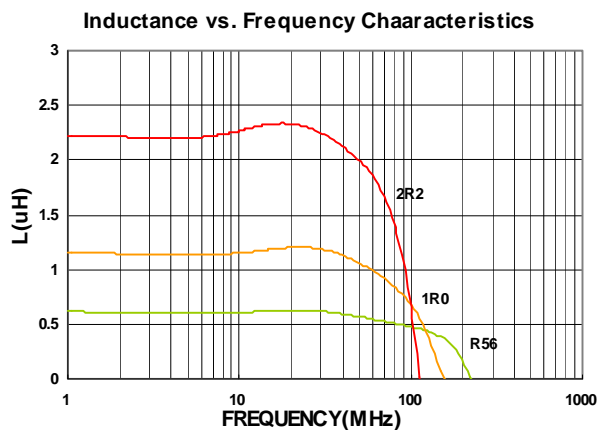
## Electrical Characteristics

### MPB : Low RDC Series

Part Number	Inductance ( $\mu\text{H}$ )	Test Frequency (MHz)	Tolerance ( $\pm\%$ )	RDC ( $\Omega$ ) $\pm 30\%$	Rated current (mA) Max
MPB160808T-R56□-NA2	0.56	3	20, 30	0.23	900
MPB160808T-1R0□-NA2	1.0	3	20, 30	0.28	800
MPB160808T-2R2□-NA2	2.2	3	20, 30	0.40	600

- Tolerance : M =  $\pm 20\%$  , T =  $\pm 30\%$
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than  $40^\circ\text{C}$
- Operating temperature range from  $-55^\circ\text{C}$  to  $125^\circ\text{C}$ . (Including self - temperature rise)

**Test Instruments :** HP4287A Inductance / Material Analyzer



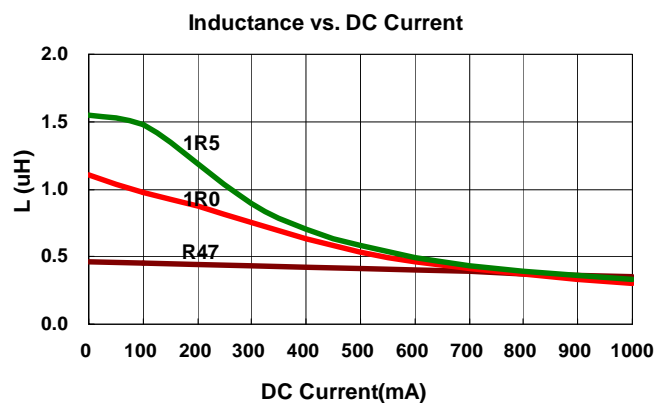
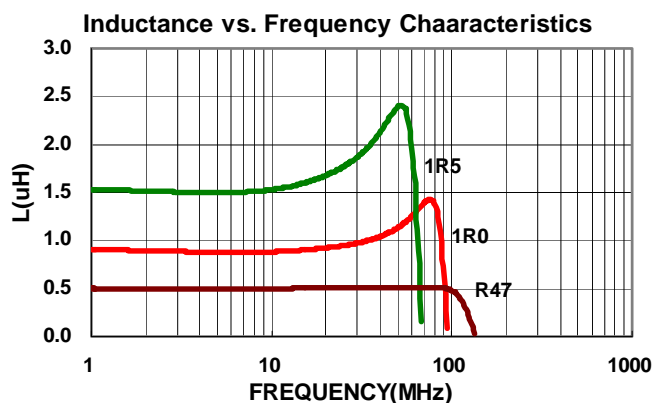
## Electrical Characteristics

### MPB : Low RDC Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPB201205T-R47□-NA2	0.47	3	20, 30	0.11	1200
MPB201205T-1R0□-NA2	1.0	3	20, 30	0.16	900
MPB201205T-1R5□-NA2	1.5	3	20, 30	0.18	800

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃. (Including self - temperature rise)

**Test Instruments :** HP4287A Inductance / Material Analyzer



## Electrical Characteristics

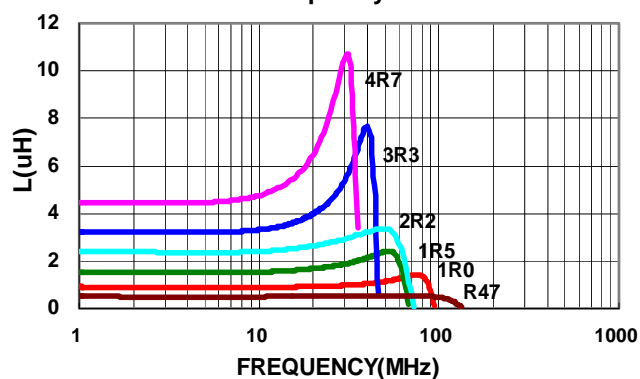
### MPB : Low RDC Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPB201210T-R47□-NA2	0.47	3	20, 30	0.09	1300
MPB201210T-1R0□-NA2	1.0	3	20, 30	0.12	1200
MPB201210T-1R5□-NA2	1.5	3	20, 30	0.15	1100
MPB201210T-2R2□-NA2	2.2	3	20, 30	0.19	1100
MPB201210T-3R3□-NA2	3.3	3	20, 30	0.24	800
MPB201210T-4R7□-NA2	4.7	3	20, 30	0.26	700

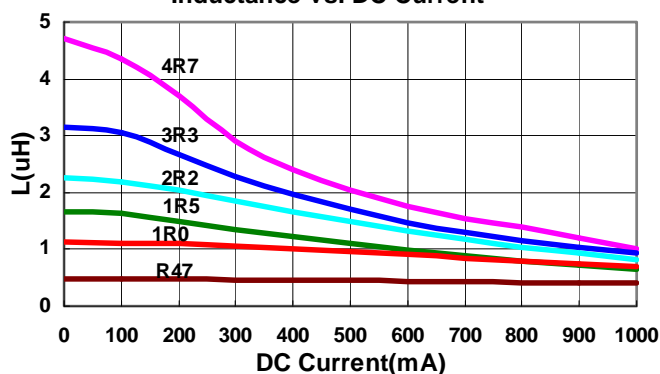
- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

### Test Instruments : HP4287A Inductance / Material Analyzer

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



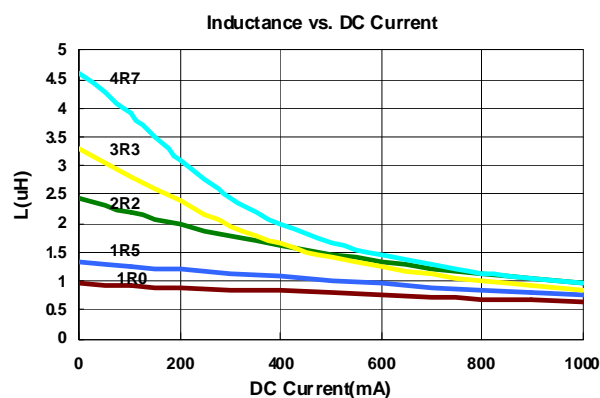
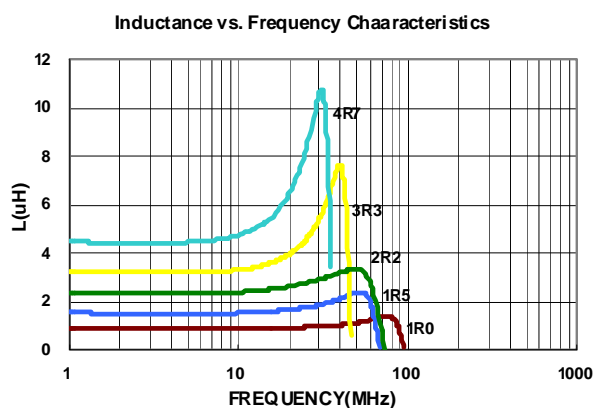
## Electrical Characteristics

### MPB : Low RDC Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPB201212T-1R0□-NA2	1.0	3	20, 30	0.13	1200
MPB201212T-1R5□-NA2	1.5	3	20, 30	0.16	1100
MPB201212T-2R2□-NA2	2.2	3	20, 30	0.23	900
MPB201212T-3R3□-NA2	3.3	3	20, 30	0.23	900
MPB201212T-4R7□-NA2	4.7	3	20, 30	0.27	700

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

### Test Instruments : HP4287A Inductance / Material Analyzer



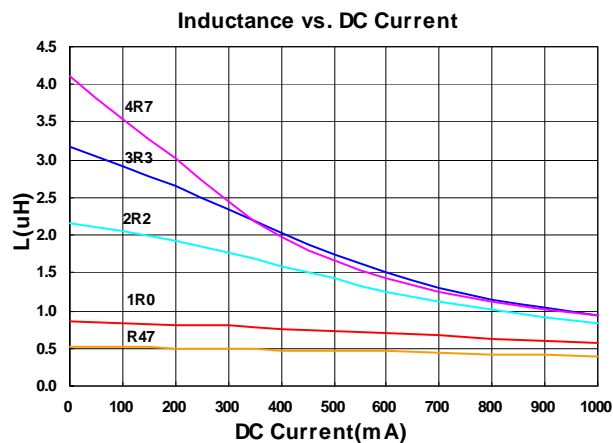
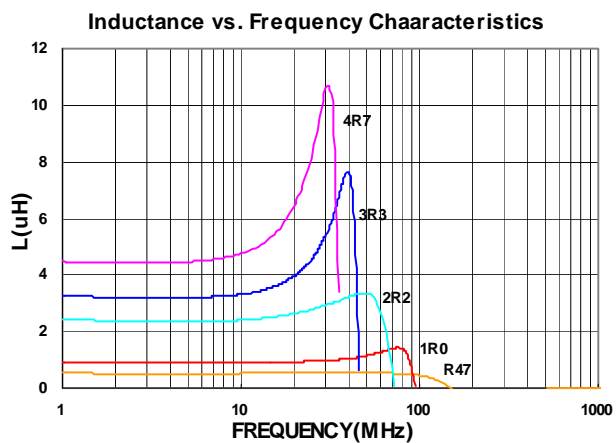
## Electrical Characteristics

### MPB : Low RDC Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPB201610T-R47□-NA2	0.47	3	20, 30	0.06	1600
MPB201610T-1R0□-NA2	1.0	3	20, 30	0.09	1300
MPB201610T-2R2□-NA2	2.2	3	20, 30	0.13	1000
MPB201610T-3R3□-NA2	3.3	3	20, 30	0.17	850
MPB201610T-4R7□-NA2	4.7	3	20, 30	0.21	800

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

**Test Instruments :** HP4287A Inductance / Material Analyzer



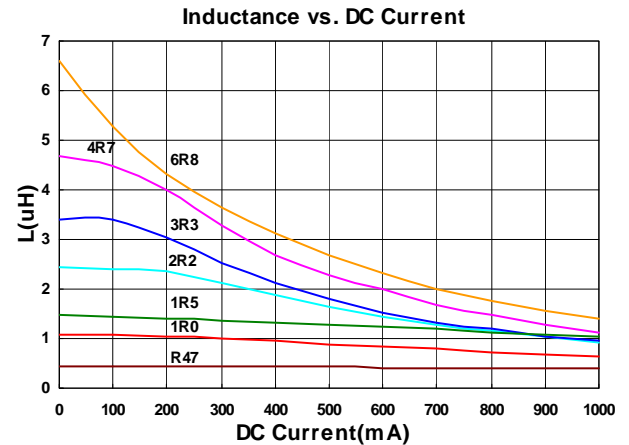
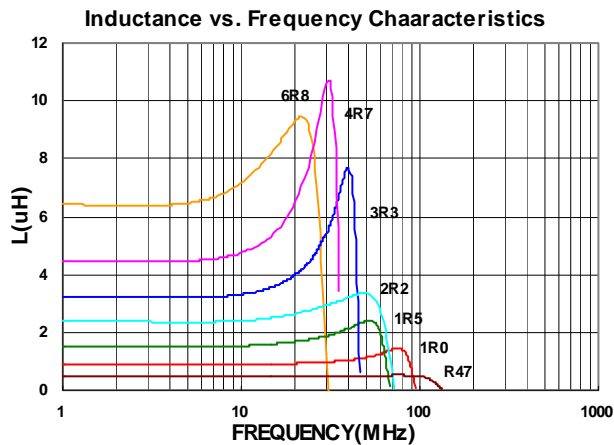
## Electrical Characteristics

### MPB : Low RDC Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPB252010T-R47□-NA2	0.47	3	20, 30	0.04	1800
MPB252010T-1R0□-NA2	1.0	3	20, 30	0.06	1500
MPB252010T-1R5□-NA2	1.5	3	20, 30	0.07	1400
MPB252010T-2R2□-NA2	2.2	3	20, 30	0.10	1200
MPB252010T-3R3□-NA2	3.3	3	20, 30	0.12	1100
MPB252010T-4R7□-NA2	4.7	3	20, 30	0.14	1000
MPB252010T-6R8□-NA2	6.8	3	20, 30	0.18	800

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

**Test Instruments :** HP4287A Inductance / Material Analyzer



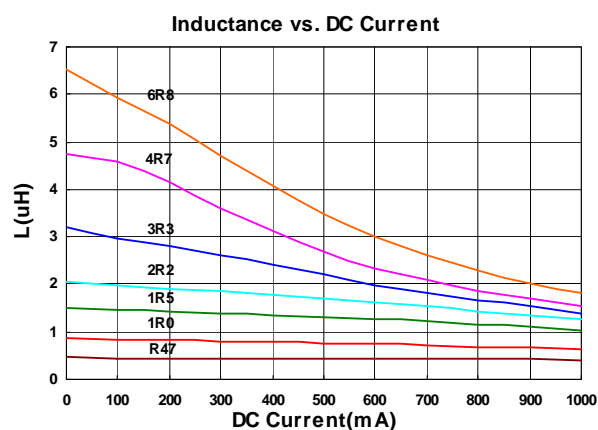
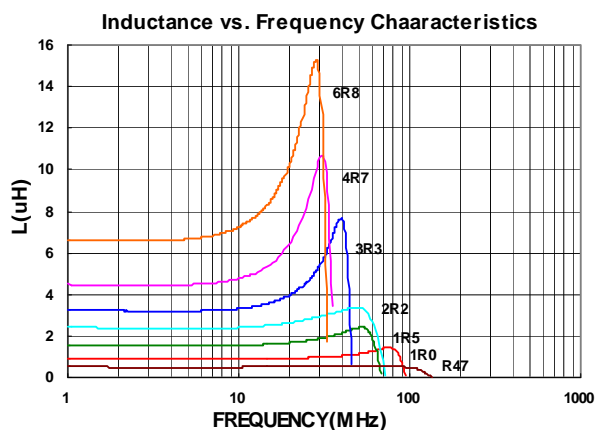
## Electrical Characteristics

### MPB : Low RDC Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPB252012T-R47□-NA2	0.47	3	20, 30	0.04	1800
MPB252012T-1R0□-NA2	1.0	3	20, 30	0.05	1600
MPB252012T-1R5□-NA2	1.5	3	20, 30	0.07	1400
MPB252012T-2R2□-NA2	2.2	3	20, 30	0.10	1200
MPB252012T-3R3□-NA2	3.3	3	20, 30	0.12	1100
MPB252012T-4R7□-NA2	4.7	3	20, 30	0.14	1000
MPB252012T-6R8□-NA2	6.8	3	20, 30	0.16	900

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

**Test Instruments** : HP4287A Inductance / Material Analyzer





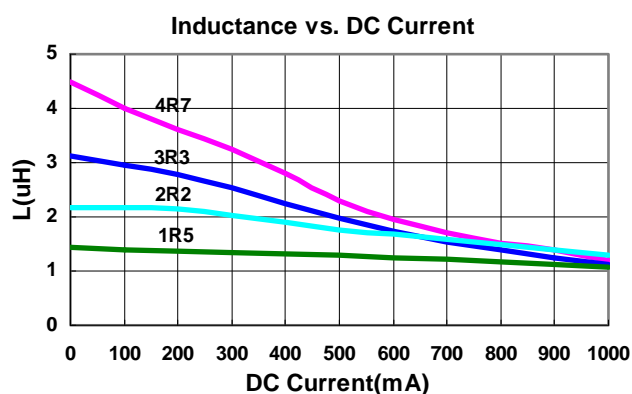
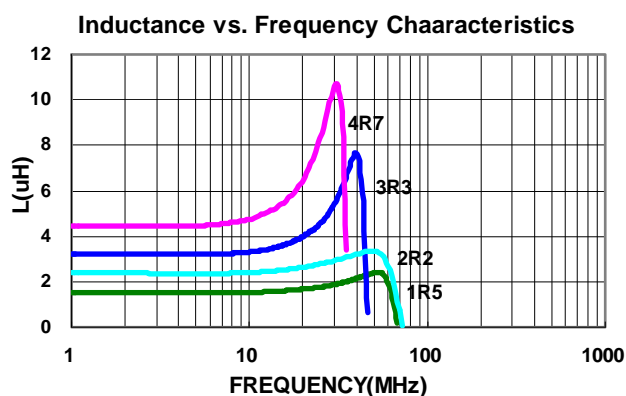
## Electrical Characteristics

### MPC : High Saturated Current Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPC201210T-1R5□-NA2	1.5	3	20, 30	0.22	1100
MPC201210T-2R2□-NA2	2.2	3	20, 30	0.23	1100
MPC201210T-3R3□-NA2	3.3	3	20, 30	0.30	700
MPC201210T-4R7□-NA2	4.7	3	20, 30	0.32	700

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

### Test Instruments : HP4287A Inductance / Material Analyzer



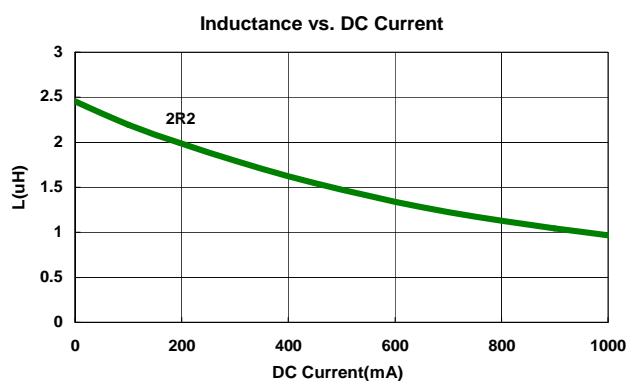
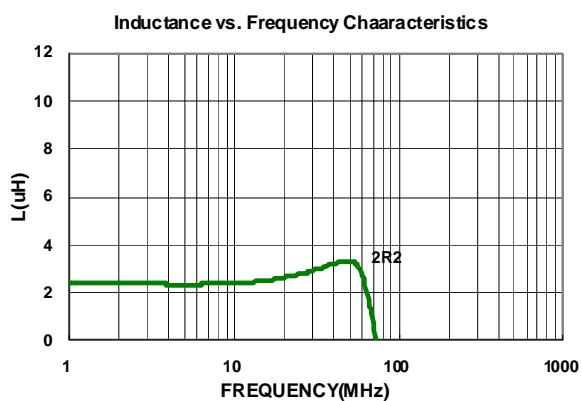
## Electrical Characteristics

### MPC : High Saturated Current Series

Part Number	Inductance ( $\mu$ H)	Test Frequency (MHz)	Tolerance ( $\pm$ %)	RDC ( $\Omega$ ) $\pm 30\%$	Rated current (mA) Max
MPC201212T-2R2□-NA2	2.2	3	20, 30	0.27	700

- Tolerance : M =  $\pm 20\%$  , T =  $\pm 30\%$
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40°C
- Operating temperature range from -55°C to 125°C . (Including self - temperature rise)

### Test Instruments : HP4287A Inductance / Material Analyzer



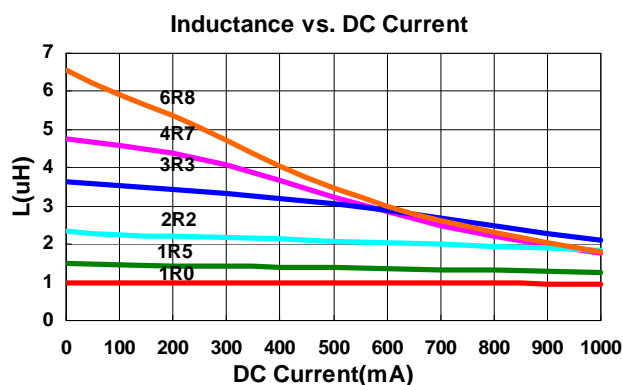
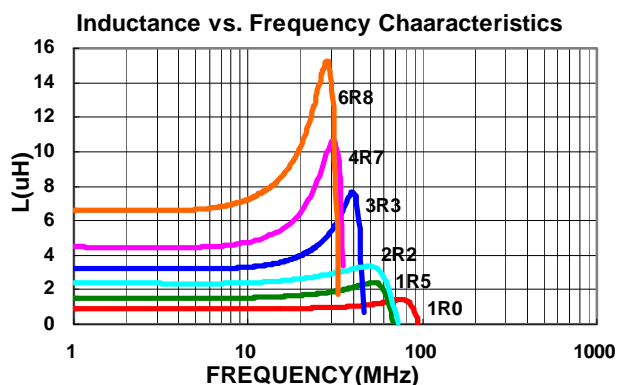
## Electrical Characteristics

### MPC : High Saturated Current Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPC252012T-1R0□-NA2	1.0	3	20, 30	0.07	1600
MPC252012T-1R5□-NA2	1.5	3	20, 30	0.08	1400
MPC252012T-2R2□-NA2	2.2	3	20, 30	0.10	1200
MPC252012T-3R3□-NA2	3.3	3	20, 30	0.12	1100
MPC252012T-4R7□-NA2	4.7	3	20, 30	0.14	1000
MPC252012T-6R8□-NA2	6.8	3	20, 30	0.16	900

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

### Test Instruments : HP4287A Inductance / Material Analyzer



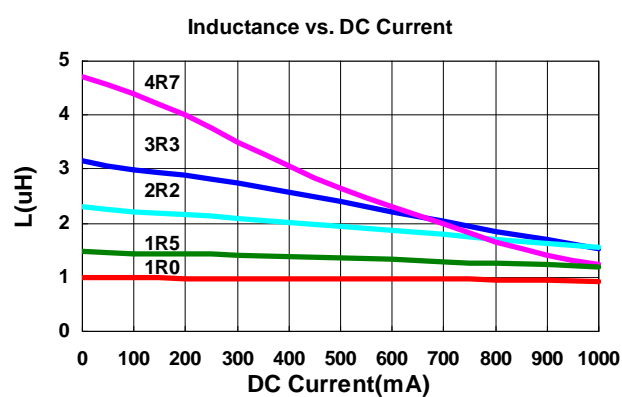
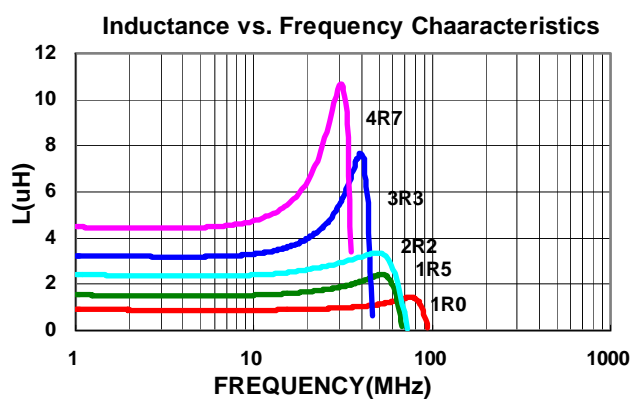
## Electrical Characteristics

### MPC : High Saturated Current Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPC252010T-1R0□-NA2	1.0	3	20, 30	0.07	1500
MPC252010T-1R5□-NA2	1.5	3	20, 30	0.08	1300
MPC252010T-2R2□-NA2	2.2	3	20, 30	0.12	1100
MPC252010T-3R3□-NA2	3.3	3	20, 30	0.12	1100
MPC252010T-4R7□-NA2	4.7	3	20, 30	0.14	800

- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

**Test Instruments :** HP4287A Inductance / Material Analyzer



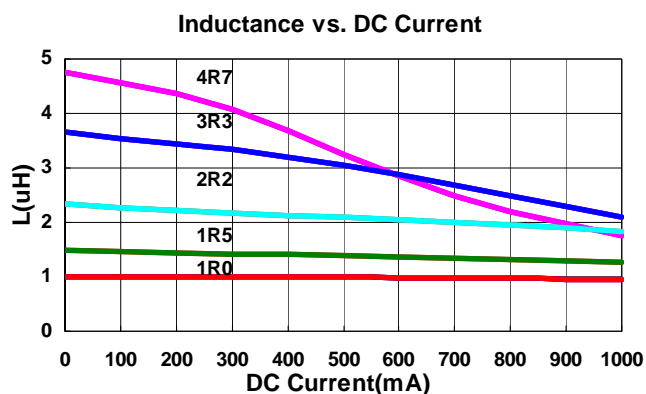
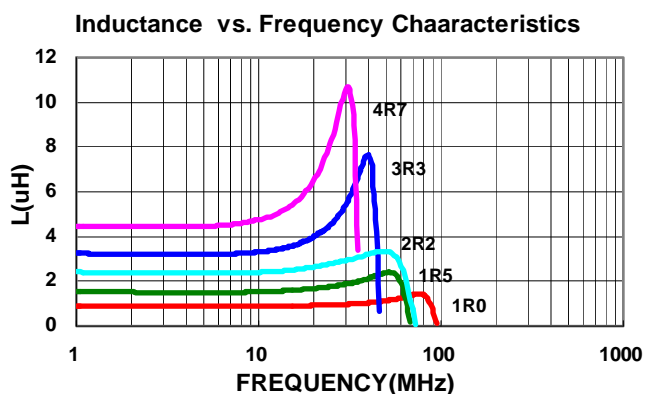
## Electrical Characteristics

### MPC : High Saturated Current Series

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	RDC (Ω) ±30%	Rated current (mA) Max
MPC252012T-1R0□-NA2	1.0	3	20, 30	0.07	1600
MPC252012T-1R5□-NA2	1.5	3	20, 30	0.08	1400
MPC252012T-2R2□-NA2	2.2	3	20, 30	0.10	1200
MPC252012T-3R3□-NA2	3.3	3	20, 30	0.12	1100
MPC252012T-4R7□-NA2	4.7	3	20, 30	0.14	1000

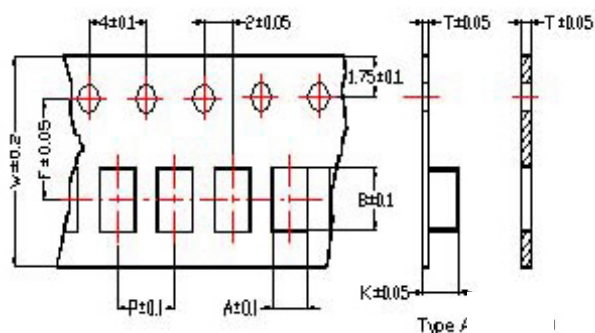
- Tolerance : M = ±20% , T = ±30%
- Packaging: Clear tape and reel {standard}.
- L : Agilent/HP4287A+16197A, 3MHz 200mV
- RDC : HP 4338B, or equivalent
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 40℃
- Operating temperature range from -55℃ to 125℃ . (Including self - temperature rise)

**Test Instruments :** HP4287A Inductance / Material Analyzer

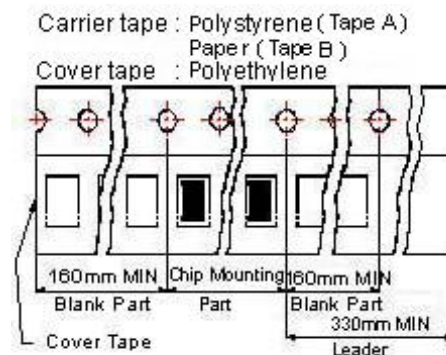


## Packaging Specifications

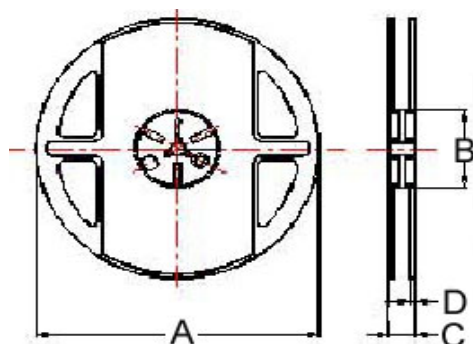
Tape Dimensions



Tape Material



Reel Dimensions



## Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / REEL
	A	B	T	W	P	F	K	Tape Type	A	B	C	D	
160808	1.05	1.85	0.95	8.0	4.0	3.5	0.80	B	178	60	12	1.5	4000
201205	1.42	2.25	0.22	8.0	4.0	3.5	0.80	A	178	60	12	1.5	4000
201210	1.45	2.25	0.22	8.0	4.0	3.5	1.04	A	178	60	12	1.5	3000
201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000
201610	1.80	2.20	0.22	8.0	4.0	3.5	1.15	A	178	60	12	1.5	3000
252010	2.25	2.8	0.25	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000
252012	2.25	2.8	0.25	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000