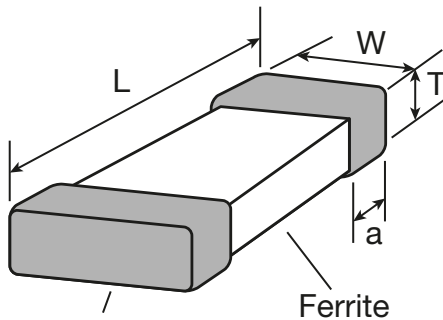


Multilayer Chip Inductors

Features

- No crosstalk between inductors due to magnetic shield
Perfect for high density installation
- Unified automatic chip mounting shape with no directionality
- Excellent solderability and high resistance for either flow or reflow soldering
- Monolithic structure for high reliability

Dimensions



Termination finish is
100% matte Tin (Sn)
over Nickel (Ni)

Unit: mm (inch)

| SERIES | L | W | T | a |
|--------------------|------------------------------|------------------------------|--|------------------------------|
| MLF 1005 (0402) | 1.0 ± 0.10 (0.040 ± .004) | 0.5 ± 0.10 (0.020 ± .004) | 0.5 ± 0.15 (0.020 ± .006) | 0.25 ± 0.1 (0.010 ± .004) |
| MLF 1608 (0603) | 1.6 ± 0.15 (0.064 ± .006) | 0.8 ± 0.15 (0.032 ± .006) | 0.8 ± 0.15 (0.032 ± .006) 1.2 ± 0.2 (0.048 ± .008) | 0.3 ± 0.2 (0.012 ± .008) |
| MLF 2012 (0805) | 2.0 ± 0.2 (0.080 ± .008) | 1.25 ± 0.2 (0.050 ± .008) | 0.85 ± 0.2 (0.034 ± .008) 1.25 ± 0.2 (0.050 ± .008) | 0.5 ± 0.3 (0.020 ± .012) |
| MLF 3216 (1206) | 3.2 ± 0.2 (0.128 ± .008) | 1.6 ± 0.2 (0.064 ± .008) | 0.6 ± 0.2 (0.024 ± .008) 1.1 ± 0.2 (0.044 ± .008) | 0.5 ± 0.3 (0.020 ± .012) |

| | |
|------------------------------------|---------------|
| Operating Temperature Range | -40 to +85° C |
| Storage Temperature Range | -10 to +40° C |

How To Order

MLF1608

Series

47N

Inductance
Value

47N: 47nH (0.047μH)
R12: 0.12μH
1R0: 1μH

M

Tolerance
J: ± 5%
K: ± 10%
M: ± 20%
S: ± 0.3nH

T

Packaging
T: Tape

NOTE: All MLF series have Ferrite core.

Standard termination finish for this product is
100% matte Tin (Sn)

Please Note: Venkel offers Engineering Kits for this product. See page 117 for details.

All components in this section are RoHS compliant per the EU directives and definitions.

5900 Shepherd Mountain Cove • Austin, TX 78730
Phone: 512 / 794-0081 • Fax: 512 / 794-0087 • Toll Free: 800 / 950-8365
e-mail: sales@venkel.com • www.venkel.com



VENKEL LTD.

Multilayer Chip Inductors

MLF1005 SERIES (0402) - Electrical Characteristics

| Inductance (nH) | Inductance tolerance (nH) | Q min. | Test frequency (MHz) | Q (typical) frequency (MHz) | | | | | Self-resonant frequency (MHz) | | DC resistance (ohms) max. | Rated current (mA) max. | Part No.* |
|-----------------|---------------------------|--------|----------------------|-----------------------------|-----|-----|-----|------|-------------------------------|-------|---------------------------|-------------------------|---------------|
| | | | | 100 | 300 | 500 | 800 | 1000 | min. | typ. | | | |
| 1.0 | ± 0.3nH | 8 | 100 | 11 | 20 | 26 | 34 | 39 | 4000 | 13000 | 0.12 | 300 | MLF1005-1N0ST |
| 1.2 | ± 0.3nH | 8 | 100 | 11 | 20 | 26 | 34 | 39 | 4000 | 13000 | 0.12 | 300 | MLF1005-1N2ST |
| 1.5 | ± 0.3nH | 8 | 100 | 11 | 20 | 26 | 34 | 39 | 4000 | 13000 | 0.13 | 300 | MLF1005-1N5ST |
| 1.8 | ± 0.3nH | 8 | 100 | 11 | 18 | 24 | 30 | 35 | 4000 | 11000 | 0.14 | 300 | MLF1005-1N8ST |
| 2.2 | ± 0.3nH | 8 | 100 | 10 | 17 | 24 | 29 | 35 | 4000 | 11000 | 0.16 | 300 | MLF1005-2N2ST |
| 2.7 | ± 0.3nH | 8 | 100 | 10 | 17 | 23 | 29 | 34 | 4000 | 9000 | 0.17 | 300 | MLF1005-2N7ST |
| 3.3 | ± 10%, ± 5% | 8 | 100 | 10 | 17 | 23 | 28 | 34 | 4000 | 8000 | 0.19 | 300 | MLF1005-3N3□T |
| 3.9 | ± 10%, ± 5% | 8 | 100 | 10 | 17 | 23 | 28 | 33 | 4000 | 7000 | 0.22 | 300 | MLF1005-3N9□T |
| 4.7 | ± 10%, ± 5% | 8 | 100 | 10 | 17 | 23 | 28 | 33 | 4000 | 6000 | 0.24 | 300 | MLF1005-4N7□T |
| 5.6 | ± 10%, ± 5% | 8 | 100 | 10 | 17 | 22 | 28 | 33 | 4000 | 5700 | 0.27 | 300 | MLF1005-5N6□T |
| 6.8 | ± 10%, ± 5% | 8 | 100 | 10 | 16 | 22 | 27 | 33 | 3900 | 5500 | 0.32 | 250 | MLF1005-6N8□T |
| 8.2 | ± 10%, ± 5% | 8 | 100 | 10 | 17 | 22 | 28 | 32 | 3600 | 4900 | 0.37 | 250 | MLF1005-8N2□T |
| 10.0 | ± 10%, ± 5% | 8 | 100 | 10 | 17 | 22 | 30 | 32 | 3200 | 4300 | 0.42 | 250 | MLF1005-10N□T |
| 12.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 24 | 31 | 34 | 2700 | 3900 | 0.50 | 250 | MLF1005-12N□T |
| 15.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 24 | 30 | 33 | 2300 | 3500 | 0.55 | 250 | MLF1005-15N□T |
| 18.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 24 | 30 | 32 | 2100 | 3100 | 0.65 | 200 | MLF1005-18N□T |
| 22.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 24 | 30 | 31 | 1900 | 2800 | 0.80 | 200 | MLF1005-22N□T |
| 27.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 23 | 27 | 29 | 1600 | 2300 | 0.90 | 200 | MLF1005-27N□T |
| 33.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 22 | 25 | 25 | 1300 | 1900 | 1.00 | 200 | MLF1005-33N□T |
| 39.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 22 | 24 | 23 | 1200 | 1700 | 1.20 | 150 | MLF1005-39N□T |
| 47.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 21 | 23 | 21 | 1000 | 1500 | 1.30 | 150 | MLF1005-47N□T |
| 56.0 | ± 10%, ± 5% | 8 | 100 | 11 | 18 | 20 | 21 | 19 | 750 | 1300 | 1.40 | 150 | MLF1005-56N□T |

*NOTE — Part No. can be written as MLF0402.

MLF1608 SERIES (0603) - Electrical Characteristics

| Inductance (µH) | Inductance Tolerance | Q | | Test frequency L, Q (MHz) | Self-resonant frequency (MHz) | | DC resistance (Ω) | | Rated current (mA) max. | Thickness T (mm) | Part No.* |
|-----------------|----------------------|------|---------|---------------------------|-------------------------------|---------|-------------------|---------|-------------------------|------------------|----------------|
| | | min. | nominal | | min. | nominal | max. | nominal | | | |
| 0.047 | ± 20% | 10 | 20 | 50 | 260 | 350 | 0.3 | 0.2 | 50 | 0.8 | MLF1608-47NM T |
| 0.068 | ± 20% | 10 | 20 | 50 | 250 | 325 | 0.3 | 0.2 | 50 | 0.8 | MLF1608-68NM T |
| 0.082 | ± 20% | 10 | 20 | 50 | 245 | 310 | 0.3 | 0.2 | 50 | 0.8 | MLF1608-82NM T |
| 0.1 | ± 20%, ± 10% | 15 | 25 | 25 | 240 | 295 | 0.5 | 0.3 | 50 | 0.8 | MLF1608-R10□T |
| 0.12 | ± 20%, ± 10% | 15 | 25 | 25 | 205 | 280 | 0.5 | 0.3 | 50 | 0.8 | MLF1608-R12□T |
| 0.15 | ± 20%, ± 10% | 15 | 25 | 25 | 180 | 260 | 0.6 | 0.4 | 50 | 0.8 | MLF1608-R15□T |
| 0.18 | ± 20%, ± 10% | 15 | 25 | 25 | 165 | 245 | 0.6 | 0.4 | 50 | 0.8 | MLF1608-R18□T |
| 0.22 | ± 20%, ± 10% | 15 | 25 | 25 | 150 | 230 | 0.8 | 0.45 | 50 | 0.8 | MLF1608-R22□T |
| 0.27 | ± 20%, ± 10% | 15 | 25 | 25 | 136 | 210 | 0.8 | 0.5 | 50 | 0.8 | MLF1608-R27□T |
| 0.33 | ± 20%, ± 10% | 15 | 25 | 25 | 125 | 200 | 0.85 | 0.55 | 35 | 0.8 | MLF1608-R33□T |
| 0.39 | ± 20%, ± 10% | 15 | 25 | 25 | 110 | 185 | 1 | 0.65 | 35 | 0.8 | MLF1608-R39□T |
| 0.47 | ± 20%, ± 10% | 15 | 25 | 25 | 105 | 170 | 1.35 | 0.7 | 35 | 0.8 | MLF1608-R47□T |
| 0.56 | ± 20%, ± 10% | 15 | 25 | 25 | 95 | 155 | 1.55 | 0.75 | 35 | 0.8 | MLF1608-R56□T |
| 0.68 | ± 20%, ± 10% | 15 | 25 | 25 | 90 | 140 | 1.7 | 0.8 | 35 | 0.8 | MLF1608-R68□T |
| 0.82 | ± 20%, ± 10% | 15 | 25 | 25 | 85 | 125 | 2.1 | 0.85 | 35 | 0.8 | MLF1608-R82□T |
| 1 | ± 20%, ± 10% | 35 | 50 | 10 | 75 | 105 | 0.6 | 0.35 | 25 | 0.8 | MLF1608-1R0□T |
| 1.2 | ± 20%, ± 10% | 35 | 50 | 10 | 65 | 100 | 0.8 | 0.45 | 25 | 0.8 | MLF1608-1R2□T |
| 1.5 | ± 20%, ± 10% | 35 | 50 | 10 | 60 | 90 | 0.8 | 0.5 | 25 | 0.8 | MLF1608-1R5□T |
| 1.8 | ± 20%, ± 10% | 35 | 50 | 10 | 55 | 80 | 0.95 | 0.55 | 25 | 0.8 | MLF1608-1R8□T |
| 2.2 | ± 20%, ± 10% | 35 | 50 | 10 | 50 | 75 | 1.15 | 0.65 | 15 | 0.8 | MLF1608-2R2□T |
| 2.7 | ± 20%, ± 10% | 35 | 50 | 10 | 45 | 65 | 1.35 | 0.75 | 15 | 0.8 | MLF1608-2R7□T |
| 3.3 | ± 20%, ± 10% | 35 | 50 | 10 | 40 | 60 | 1.55 | 0.85 | 15 | 0.8 | MLF1608-3R3□T |
| 3.9 | ± 20%, ± 10% | 35 | 50 | 10 | 35 | 50 | 1.7 | 0.9 | 15 | 0.8 | MLF1608-3R9□T |
| 4.7 | ± 20%, ± 10% | 35 | 50 | 10 | 33 | 47 | 2.1 | 1 | 15 | 0.8 | MLF1608-4R7□T |
| 5.6 | ± 20%, ± 10% | 35 | 55 | 4 | 22 | 45 | 1.55 | 0.8 | 5 | 0.8 | MLF1608-5R6□T |
| 6.8 | ± 20%, ± 10% | 35 | 55 | 4 | 20 | 40 | 1.7 | 0.9 | 5 | 0.8 | MLF1608-6R8□T |
| 8.2 | ± 20%, ± 10% | 35 | 55 | 4 | 18 | 38 | 2.1 | 1 | 5 | 0.8 | MLF1608-8R2□T |
| 10 | ± 20%, ± 10% | 30 | 50 | 2 | 17 | 37 | 1.85 | 0.9 | 3 | 0.8 | MLF1608-100□T |
| 12 | ± 20%, ± 10% | 30 | 50 | 2 | 15 | 35 | 2.1 | 1 | 3 | 0.8 | MLF1608-120□T |
| 15 | ± 20%, ± 10% | 20 | 35 | 1 | 14 | 30 | 1.7 | 0.8 | 1 | 0.8 | MLF1608-150□T |
| 18 | ± 20%, ± 10% | 20 | 35 | 1 | 13 | 28 | 1.85 | 0.9 | 1 | 0.8 | MLF1608-180□T |
| 22 | ± 20%, ± 10% | 20 | 35 | 1 | 11 | 25 | 2.1 | 1 | 1 | 0.8 | MLF1608-220□T |
| 27 | ± 20%, ± 10% | 20 | 35 | 1 | 10 | 23 | 2.75 | 1.2 | 1 | 1.2 | MLF1608-270□T |
| 33 | ± 20%, ± 10% | 20 | 35 | 1 | 9 | 21 | 2.95 | 1.3 | 1 | 1.2 | MLF1608-330□T |

*NOTE — Part No. can be written as MLF0603.

Multilayer Chip Inductors

MLF2012 SERIES (0805) - Electrical Characteristics

| Inductance (μ H) | Inductance tolerance | Q | | Test frequency L, Q (MHz) | Self-resonant frequency (MHz) | | DC resistance (Ω) | | Rated current (mA) max. | Thickness T (mm) | Part No.* |
|--------------------------|-------------------------|------|---------|------------------------------------|-------------------------------------|---------|-------------------------------|---------|-------------------------------|------------------------|----------------|
| | | min. | nominal | | min. | nominal | max. | nominal | | | |
| 0.047 | $\pm 20\%$ | 15 | 25 | 50 | 320 | 400 | 0.2 | 0.11 | 300 | 0.85 | MLF2012-47NM T |
| 0.068 | $\pm 20\%$ | 15 | 25 | 50 | 280 | 350 | 0.2 | 0.11 | 300 | 0.85 | MLF2012-68NM T |
| 0.082 | $\pm 20\%$ | 15 | 25 | 50 | 255 | 320 | 0.2 | 0.11 | 300 | 0.85 | MLF2012-82NM T |
| 0.1 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 235 | 300 | 0.3 | 0.16 | 250 | 0.85 | MLF2012-R10□T |
| 0.12 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 220 | 280 | 0.3 | 0.16 | 250 | 0.85 | MLF2012-R12□T |
| 0.15 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 200 | 250 | 0.4 | 0.21 | 250 | 0.85 | MLF2012-R15□T |
| 0.18 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 185 | 230 | 0.4 | 0.21 | 250 | 0.85 | MLF2012-R18□T |
| 0.22 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 170 | 220 | 0.5 | 0.26 | 250 | 0.85 | MLF2012-R22□T |
| 0.27 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 150 | 200 | 0.5 | 0.26 | 250 | 0.85 | MLF2012-R27□T |
| 0.33 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 145 | 180 | 0.55 | 0.31 | 250 | 0.85 | MLF2012-R33□T |
| 0.39 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 135 | 170 | 0.65 | 0.36 | 200 | 0.85 | MLF2012-R39□T |
| 0.47 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 125 | 160 | 0.65 | 0.36 | 200 | 1.25 | MLF2012-R47□T |
| 0.56 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 115 | 150 | 0.75 | 0.41 | 150 | 1.25 | MLF2012-R56□T |
| 0.68 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 105 | 135 | 0.8 | 0.46 | 150 | 1.25 | MLF2012-R68□T |
| 0.82 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 100 | 125 | 1 | 0.56 | 150 | 1.25 | MLF2012-R82□T |
| 1 | $\pm 20\%, \pm 10\%$ | 45 | 55 | 10 | 75 | 105 | 0.4 | 0.21 | 50 | 0.85 | MLF2012-1R0□T |
| 1.2 | $\pm 20\%, \pm 10\%$ | 45 | 55 | 10 | 65 | 95 | 0.5 | 0.26 | 50 | 0.85 | MLF2012-1R2□T |
| 1.5 | $\pm 20\%, \pm 10\%$ | 45 | 55 | 10 | 60 | 85 | 0.5 | 0.26 | 50 | 0.85 | MLF2012-1R5□T |
| 1.8 | $\pm 20\%, \pm 10\%$ | 45 | 55 | 10 | 55 | 78 | 0.6 | 0.31 | 50 | 0.85 | MLF2012-1R8□T |
| 2.2 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 50 | 70 | 0.65 | 0.36 | 30 | 0.85 | MLF2012-2R2□T |
| 2.7 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 45 | 64 | 0.75 | 0.41 | 30 | 1.25 | MLF2012-2R7□T |
| 3.3 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 41 | 58 | 0.8 | 0.46 | 30 | 1.25 | MLF2012-3R3□T |
| 3.9 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 38 | 53 | 0.9 | 0.51 | 30 | 1.25 | MLF2012-3R9□T |
| 4.7 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 35 | 48 | 1 | 0.56 | 30 | 1.25 | MLF2012-4R7□T |
| 5.6 | $\pm 20\%, \pm 10\%$ | 50 | 60 | 4 | 32 | 44 | 0.9 | 0.51 | 15 | 1.25 | MLF2012-5R6□T |
| 6.8 | $\pm 20\%, \pm 10\%$ | 50 | 60 | 4 | 29 | 40 | 1 | 0.56 | 15 | 1.25 | MLF2012-6R8□T |
| 8.2 | $\pm 20\%, \pm 10\%$ | 50 | 60 | 4 | 26 | 36 | 1.1 | 0.61 | 15 | 1.25 | MLF2012-8R2□T |
| 10 | $\pm 20\%, \pm 10\%$ | 50 | 60 | 2 | 24 | 33 | 1.15 | 0.66 | 15 | 1.25 | MLF2012-100□T |
| 12 | $\pm 20\%, \pm 10\%$ | 50 | 60 | 2 | 22 | 30 | 1.25 | 0.71 | 15 | 1.25 | MLF2012-120□T |
| 15 | $\pm 20\%, \pm 10\%$ | 30 | 40 | 1 | 19 | 27 | 0.8 | 0.46 | 5 | 1.25 | MLF2012-150□T |
| 18 | $\pm 20\%, \pm 10\%$ | 30 | 40 | 1 | 18 | 25 | 0.9 | 0.51 | 5 | 1.25 | MLF2012-180□T |
| 22 | $\pm 20\%, \pm 10\%$ | 30 | 40 | 1 | 16 | 22 | 1.1 | 0.61 | 5 | 1.25 | MLF2012-220□T |
| 27 | $\pm 20\%, \pm 10\%$ | 30 | 40 | 1 | 14 | 20 | 1.5 | 0.66 | 5 | 1.25 | MLF2012-270□T |
| 33 | $\pm 20\%, \pm 10\%$ | 30 | 40 | 0.4 | 13 | 18 | 1.25 | 0.71 | 5 | 1.25 | MLF2012-330□T |

*NOTE — Part No. can be written as MLF0805.

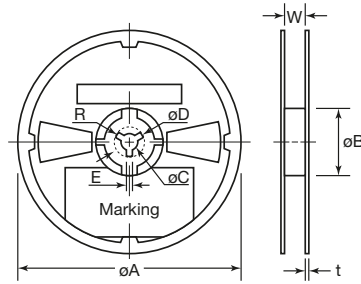
MLF3216 SERIES (1206) - Electrical Characteristics

| Inductance (μ H) | Inductance tolerance | Q | | Test frequency L, Q (MHz) | Self-resonant frequency (MHz) | | DC resistance (Ω) | | Rated current (mA) max. | Thickness T (mm) | Part No.* |
|--------------------------|-------------------------|------|---------|------------------------------------|-------------------------------------|---------|-------------------------------|---------|-------------------------------|------------------------|----------------|
| | | min. | nominal | | min. | nominal | max. | nominal | | | |
| 0.047 | $\pm 20\%$ | 20 | 30 | 50 | 320 | 400 | 0.15 | 0.08 | 300 | 0.6 \pm 0.2 | MLF3216-47NM T |
| 0.068 | $\pm 20\%$ | 20 | 30 | 50 | 280 | 330 | 0.25 | 0.13 | 300 | 0.6 \pm 0.2 | MLF3216-68NM T |
| 0.1 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 235 | 280 | 0.25 | 0.13 | 250 | 0.6 \pm 0.2 | MLF3216-R10□T |
| 0.12 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 220 | 260 | 0.3 | 0.18 | 250 | 0.6 \pm 0.2 | MLF3216-R12□T |
| 0.15 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 200 | 240 | 0.3 | 0.18 | 250 | 0.6 \pm 0.2 | MLF3216-R15□T |
| 0.18 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 185 | 220 | 0.4 | 0.23 | 250 | 0.6 \pm 0.2 | MLF3216-R18□T |
| 0.22 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 170 | 200 | 0.4 | 0.23 | 250 | 0.6 \pm 0.2 | MLF3216-R22□T |
| 0.27 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 150 | 180 | 0.5 | 0.28 | 250 | 0.6 \pm 0.2 | MLF3216-R27□T |
| 0.33 | $\pm 20\%, \pm 10\%$ | 20 | 30 | 25 | 145 | 170 | 0.6 | 0.34 | 250 | 0.6 \pm 0.2 | MLF3216-R33□T |
| 0.39 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 135 | 160 | 0.5 | 0.28 | 200 | 1.1 \pm 0.3 | MLF3216-R39□T |
| 0.47 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 125 | 145 | 0.6 | 0.34 | 200 | 1.1 \pm 0.3 | MLF3216-R47□T |
| 0.56 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 115 | 135 | 0.7 | 0.39 | 150 | 1.1 \pm 0.3 | MLF3216-R56□T |
| 0.68 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 105 | 125 | 0.8 | 0.44 | 150 | 1.1 \pm 0.3 | MLF3216-R68□T |
| 0.82 | $\pm 20\%, \pm 10\%$ | 25 | 35 | 25 | 100 | 115 | 0.9 | 0.5 | 150 | 1.1 \pm 0.3 | MLF3216-R82□T |
| 1 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 75 | 90 | 0.4 | 0.23 | 100 | 0.6 \pm 0.2 | MLF3216-1R0□T |
| 1.2 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 65 | 80 | 0.5 | 0.28 | 100 | 0.6 \pm 0.2 | MLF3216-1R2□T |
| 1.5 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 60 | 70 | 0.5 | 0.28 | 50 | 1.1 \pm 0.3 | MLF3216-1R5□T |
| 1.8 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 55 | 66 | 0.5 | 0.28 | 50 | 1.1 \pm 0.3 | MLF3216-1R8□T |
| 2.2 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 50 | 58 | 0.6 | 0.34 | 50 | 1.1 \pm 0.3 | MLF3216-2R2□T |
| 2.7 | $\pm 20\%, \pm 10\%$ | 45 | 60 | 10 | 45 | 53 | 0.6 | 0.34 | 50 | 1.1 \pm 0.3 | MLF3216-2R7□T |
| 3.3 | $\pm 20\%, \pm 10\%$ | 45 | 65 | 10 | 41 | 49 | 0.07 | 0.39 | 50 | 1.1 \pm 0.3 | MLF3216-3R3□T |
| 3.9 | $\pm 20\%, \pm 10\%$ | 45 | 65 | 10 | 38 | 45 | 0.8 | 0.44 | 50 | 1.1 \pm 0.3 | MLF3216-3R9□T |
| 4.7 | $\pm 20\%, \pm 10\%$ | 45 | 65 | 10 | 35 | 41 | 0.9 | 0.5 | 50 | 1.1 \pm 0.3 | MLF3216-4R7□T |
| 5.6 | $\pm 20\%, \pm 10\%$ | 50 | 65 | 4 | 32 | 38 | 0.7 | 0.39 | 25 | 1.1 \pm 0.3 | MLF3216-5R6□T |
| 6.8 | $\pm 20\%, \pm 10\%$ | 50 | 65 | 4 | 29 | 34 | 0.8 | 0.44 | 25 | 1.1 \pm 0.3 | MLF3216-6R8□T |
| 8.2 | $\pm 20\%, \pm 10\%$ | 50 | 65 | 4 | 26 | 31 | 0.9 | 0.5 | 25 | 1.1 \pm 0.3 | MLF3216-8R2□T |
| 10 | $\pm 20\%, \pm 10\%$ | 50 | 65 | 2 | 24 | 28 | 1 | 0.55 | 25 | 1.1 \pm 0.3 | MLF3216-100□T |
| 12 | $\pm 20\%, \pm 10\%$ | 50 | 65 | 2 | 22 | 26 | 1.05 | 0.6 | 15 | 1.1 \pm 0.3 | MLF3216-120□T |
| 15 | $\pm 20\%, \pm 10\%$ | 35 | 45 | 1 | 19 | 23 | 0.7 | 0.39 | 5 | 1.1 \pm 0.3 | MLF3216-150□T |
| 18 | $\pm 20\%, \pm 10\%$ | 35 | 45 | 1 | 18 | 21 | 0.7 | 0.39 | 5 | 1.1 \pm 0.3 | MLF3216-180□T |
| 22 | $\pm 20\%, \pm 10\%$ | 35 | 45 | 1 | 16 | 19 | 0.9 | 0.5 | 5 | 1.1 \pm 0.3 | MLF3216-220□T |
| 27 | $\pm 20\%, \pm 10\%$ | 35 | 45 | 1 | 14 | 17 | 0.9 | 0.5 | 5 | 1.1 \pm 0.3 | MLF3216-270□T |
| 33 | $\pm 20\%, \pm 10\%$ | 35 | 45 | 0.4 | 13 | 16 | 1.05 | 0.6 | 5 | 1.1 \pm 0.3 | MLF3216-330□T |

*NOTE — Part No. can be written as MLF1206.

Multilayer Chip Inductors

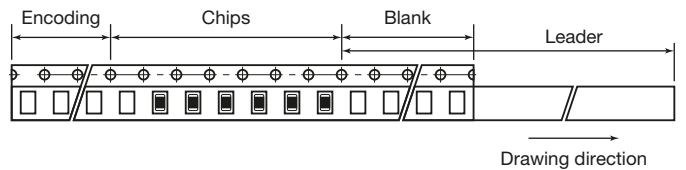
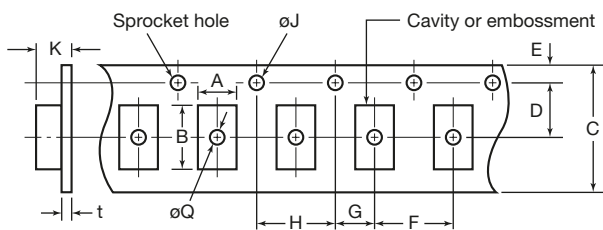
Reel Dimensions



Dimensions (unit = mm)

| Series | Product's Thickness (mm) | Quantities (pieces) Taping (/reel) | Reel Dimensions (mm) | | | | |
|----------|--------------------------|---------------------------------------|----------------------|------------|--------------|--------------|---------------|
| | | | ϕA | ϕB | ϕC | W | t |
| MLF 1005 | 0.5 ± 0.10 | 10,000 (2mm pitch) | 178 ± 2 | 60 ± 2 | 13 ± 0.5 | 10 ± 1.5 | 2.5 ± 0.2 |
| MLF 1608 | 0.8 ± 0.15 | 4000 (4mm pitch) | 178 ± 2 | 60 ± 2 | 13 ± 0.5 | 10 ± 1.5 | 2.5 ± 0.2 |
| | 1.2 ± 0.2 | 2000 (4mm pitch) | | | | | |
| MLF 2012 | 0.85 ± 0.2 | 4000 (4mm pitch) | 178 ± 2 | 60 ± 2 | 13 ± 0.5 | 10 ± 1.5 | 2.5 ± 0.2 |
| | 1.25 ± 0.2 | 2000 (4mm pitch) | | | | | |
| MLF 3216 | 0.6 ± 0.2 | 4000 (4mm pitch) | 178 ± 2 | 60 ± 2 | 13 ± 0.5 | 10 ± 1.5 | 2.5 ± 0.2 |
| | 1.1 ± 0.3 | 2000 or 3000 (4mm pitch) | | | | | |

Taping Dimensions



Tape Dimensions (unit = mm)

| Series | Tape Dimensions (mm) | | | | | | | | | | | | Tape Material | Taping Dimensions (mm) | | |
|----------|----------------------|-----|---|-----|------|---|---|---|----------|----------|-----|----------|---------------|------------------------|---------|--------|
| | A | B | C | D | E | F | G | H | ϕJ | K | t | ϕQ | | Leader | Blank | Ending |
| MLF 1005 | 0.6 | 1.1 | 8 | 3.5 | 1.75 | 2 | 2 | 4 | 1.5 | 1.0 max. | 0.2 | | 150 min. | 80 min. | 40 min. | |
| MLF 1608 | 1.1 | 1.9 | 8 | 3.5 | 1.75 | 4 | 2 | 4 | 1.5 | 1.1 max. | 0.3 | | | | | |
| | | | | | | | | | | 2 max. | | | | | | |
| MLF 2012 | 1.5 | 2.3 | 8 | 3.5 | 1.75 | 4 | 2 | 4 | 1.5 | 1.5 max. | 0.3 | 0.5 | | | | |
| | | | | | | | | | | 2 max. | | | | | | |
| MLF 3216 | 1.9 | 3.5 | 8 | 3.5 | 1.75 | 4 | 2 | 4 | 1.5 | 1.1 max. | 0.3 | 0.5 | | | | |
| | | | | | | | | | | 2 max. | | | | | | |

All components in this section are RoHS compliant per the EU directives and definitions.

5900 Shepherd Mountain Cove • Austin, TX 78730
 Phone: 512 / 794-0081 • Fax: 512 / 794-0087 • Toll Free: 800 / 950-8365
 e-mail: sales@venkel.com • www.venkel.com