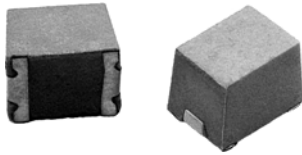


## Wirewound, Surface Mount, Molded Inductors



| STANDARD ELECTRICAL SPECIFICATIONS |        |                  |        |                |              |                                      |
|------------------------------------|--------|------------------|--------|----------------|--------------|--------------------------------------|
| IND. (μH)                          | TOL.   | TEST FREQ. (MHz) | Q MIN. | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) <sup>(1)</sup> |
|                                    |        | L & Q            |        |                |              |                                      |
| 0.010                              | ± 20 % | 50.0             | 50     | 1000           | 0.20         | 450                                  |
| 0.012                              | ± 20 % | 50.0             | 50     | 1000           | 0.20         | 450                                  |
| 0.018                              | ± 20 % | 50.0             | 50     | 1000           | 0.20         | 450                                  |
| 0.022                              | ± 20 % | 50.0             | 50     | 1000           | 0.20         | 450                                  |
| 0.027                              | ± 20 % | 50.0             | 50     | 1000           | 0.20         | 450                                  |
| 0.033                              | ± 20 % | 50.0             | 50     | 1000           | 0.30         | 450                                  |
| 0.039                              | ± 20 % | 50.0             | 50     | 1000           | 0.30         | 450                                  |
| 0.047                              | ± 20 % | 50.0             | 50     | 1000           | 0.30         | 450                                  |
| 0.056                              | ± 20 % | 50.0             | 40     | 900            | 0.35         | 450                                  |
| 0.068                              | ± 20 % | 50.0             | 40     | 800            | 0.35         | 450                                  |
| 0.082                              | ± 20 % | 50.0             | 40     | 700            | 0.40         | 450                                  |
| 0.10                               | ± 20 % | 25.2             | 30     | 650            | 0.32         | 450                                  |
| 0.12                               | ± 20 % | 25.2             | 30     | 600            | 0.30         | 450                                  |
| 0.15                               | ± 20 % | 25.2             | 30     | 500            | 0.30         | 450                                  |
| 0.18                               | ± 20 % | 25.2             | 30     | 400            | 0.35         | 450                                  |
| 0.22                               | ± 20 % | 25.2             | 30     | 350            | 0.40         | 450                                  |
| 0.27                               | ± 20 % | 25.2             | 30     | 300            | 0.45         | 450                                  |
| 0.33                               | ± 20 % | 25.2             | 30     | 250            | 0.55         | 430                                  |
| 0.39                               | ± 20 % | 25.2             | 30     | 220            | 0.70         | 380                                  |
| 0.47                               | ± 10 % | 25.2             | 30     | 190            | 0.80         | 355                                  |
| 0.56                               | ± 10 % | 25.2             | 30     | 170            | 1.20         | 285                                  |
| 0.68                               | ± 10 % | 25.2             | 30     | 150            | 1.40         | 270                                  |
| 0.82                               | ± 10 % | 25.2             | 30     | 140            | 1.60         | 250                                  |
| 1.0                                | ± 10 % | 7.96             | 50     | 100            | 0.50         | 450                                  |
| 1.2                                | ± 10 % | 7.96             | 50     | 80.0           | 0.55         | 430                                  |
| 1.5                                | ± 10 % | 7.96             | 50     | 70.0           | 0.60         | 410                                  |
| 1.8                                | ± 10 % | 7.96             | 50     | 60.0           | 0.65         | 390                                  |
| 2.2                                | ± 10 % | 7.96             | 50     | 55.0           | 0.70         | 380                                  |
| 2.7                                | ± 10 % | 7.96             | 50     | 50.0           | 0.75         | 370                                  |
| 3.3                                | ± 10 % | 7.96             | 50     | 45.0           | 0.80         | 355                                  |
| 3.9                                | ± 10 % | 7.96             | 50     | 40.0           | 0.90         | 330                                  |
| 4.7                                | ± 10 % | 7.96             | 50     | 35.0           | 1.00         | 315                                  |
| 5.6                                | ± 10 % | 7.96             | 50     | 33.0           | 1.10         | 300                                  |
| 6.8                                | ± 10 % | 7.96             | 50     | 27.0           | 1.20         | 285                                  |
| 8.2                                | ± 10 % | 7.96             | 50     | 25.0           | 1.40         | 270                                  |
| 10.0                               | ± 10 % | 2.52             | 50     | 20.0           | 1.60         | 250                                  |
| 12.0                               | ± 10 % | 2.52             | 50     | 18.0           | 2.00         | 225                                  |
| 15.0                               | ± 10 % | 2.52             | 50     | 17.0           | 2.50         | 200                                  |
| 18.0                               | ± 10 % | 2.52             | 50     | 15.0           | 2.80         | 190                                  |
| 22.0                               | ± 10 % | 2.52             | 50     | 13.0           | 3.20         | 180                                  |
| 27.0                               | ± 10 % | 2.52             | 50     | 12.0           | 3.60         | 170                                  |
| 33.0                               | ± 10 % | 2.52             | 50     | 11.0           | 4.00         | 160                                  |
| 39.0                               | ± 10 % | 2.52             | 50     | 11.0           | 4.50         | 150                                  |
| 47.0                               | ± 10 % | 2.52             | 50     | 10.0           | 5.00         | 140                                  |
| 56.0                               | ± 10 % | 2.52             | 50     | 9.0            | 5.50         | 135                                  |
| 68.0                               | ± 10 % | 2.52             | 50     | 9.0            | 6.00         | 130                                  |
| 82.0                               | ± 10 % | 2.52             | 50     | 8.0            | 7.00         | 120                                  |
| 100.0                              | ± 10 % | 0.79             | 40     | 8.0            | 8.00         | 110                                  |
| 120.0                              | ± 10 % | 0.79             | 40     | 6.0            | 8.00         | 110                                  |
| 150.0                              | ± 10 % | 0.79             | 40     | 5.0            | 9.00         | 105                                  |
| 180.0                              | ± 10 % | 0.79             | 40     | 5.0            | 9.50         | 102                                  |
| 220.0                              | ± 10 % | 0.79             | 40     | 4.0            | 10.0         | 100                                  |
| 270.0                              | ± 10 % | 0.79             | 40     | 4.0            | 12.0         | 92                                   |
| 330.0                              | ± 10 % | 0.79             | 40     | 3.5            | 14.0         | 85                                   |
| 390.0                              | ± 10 % | 0.79             | 40     | 3.0            | 16.0         | 80                                   |
| 470.0                              | ± 10 % | 0.79             | 40     | 3.0            | 26.0         | 62                                   |
| 560.0                              | ± 10 % | 0.79             | 30     | 3.0            | 30.0         | 50                                   |
| 680.0                              | ± 10 % | 0.79             | 30     | 3.0            | 30.0         | 50                                   |
| 820.0                              | ± 10 % | 0.79             | 30     | 2.5            | 35.0         | 30                                   |
| 1000.0                             | ± 10 % | 0.25             | 30     | 2.5            | 40.0         | 30                                   |

**Note**

<sup>(1)</sup> Rated DC current based on the maximum temperature rise, not to exceed 40 °C at + 85 °C ambient

**FEATURES**

- Molded construction provides superior strength and moisture resistance
- Tape and reel packaging for automatic handling, 2000/reel, EIA-481
- Printed marking
- Compatible with vapor phase and infrared reflow soldering
- Compliant to RoHS Directive 2002/95/EC


**RoHS**  
COMPLIANT

**ELECTRICAL SPECIFICATIONS**
**Inductance Range:** 0.010 μH to 1000 μH

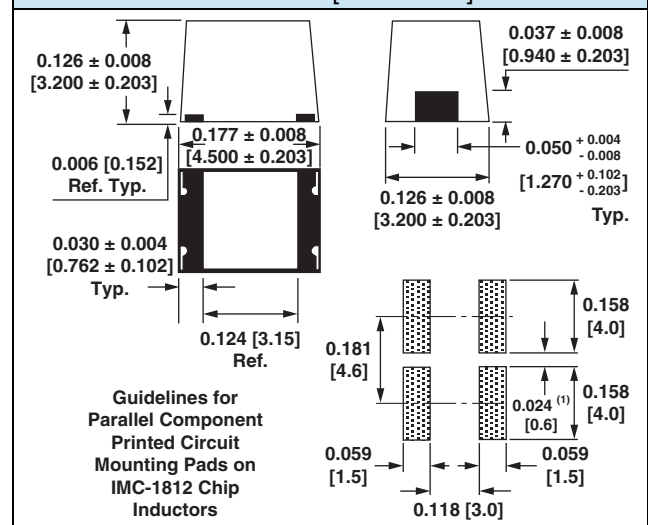
**Inductance Tolerance:** ± 20 % for 0.010 μH to 0.39 μH  
± 10 % for 0.47 μH to 1000 μH standard  
± 10 %, ± 5 %, ± 3 % available

**Operating Temperature:** - 55 °C to + 125 °C

**Coilform Material:** Non-magnetic for 0.010 μH to 0.82 μH  
Powdered iron for 1.0 μH to 120 μH  
Ferrite for 150 μH to 1000 μH

**TEST EQUIPMENT**

- H/P 4342A Q meter with Vishay Dale test fixture or equivalent
- H/P 4191A RF impedance analyzer (for SRF measurements)
- Wheatstone bridge

**DIMENSIONS** in inches [millimeters]

**Note**

<sup>(2)</sup> Recommended minimum spacing between components

**PART MARKING**

- Vishay Dale
- Inductance value
- Date code



| DESCRIPTION     |                             |                              |              |                               |
|-----------------|-----------------------------|------------------------------|--------------|-------------------------------|
| <b>IMC-1812</b> | <b>10 <math>\mu</math>H</b> | <b><math>\pm 10\%</math></b> | <b>ER</b>    | <b>e3</b>                     |
| MODEL           | INDUCTANCE VALUE            | INDUCTANCE TOLERANCE         | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

| GLOBAL PART NUMBER         |                                     |                   |                            |          |
|----------------------------|-------------------------------------|-------------------|----------------------------|----------|
| <b>I</b> <b>M</b> <b>C</b> | <b>1</b> <b>8</b> <b>1</b> <b>2</b> | <b>E</b> <b>R</b> | <b>1</b> <b>0</b> <b>0</b> | <b>K</b> |
| PRODUCT FAMILY             | SIZE                                | PACKAGE CODE      | INDUCTANCE VALUE           | TOL.     |



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**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.**