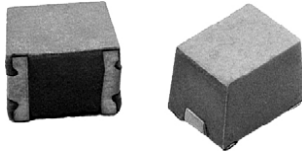




# Wirewound, Surface-Mount, Molded Inductors



## 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
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS COMPLIANT

## STANDARD ELECTRICAL SPECIFICATIONS

| IND. (μH) | TOL.   | TEST FREQ. (MHz) |        | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) <sup>(1)</sup> |
|-----------|--------|------------------|--------|----------------|--------------|--------------------------------------|
|           |        | L & Q            | Q MIN. |                |              |                                      |
| 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

## ELECTRICAL SPECIFICATIONS

Inductance range: 0.010 μH to 1000 μH

Special tolerances available upon request

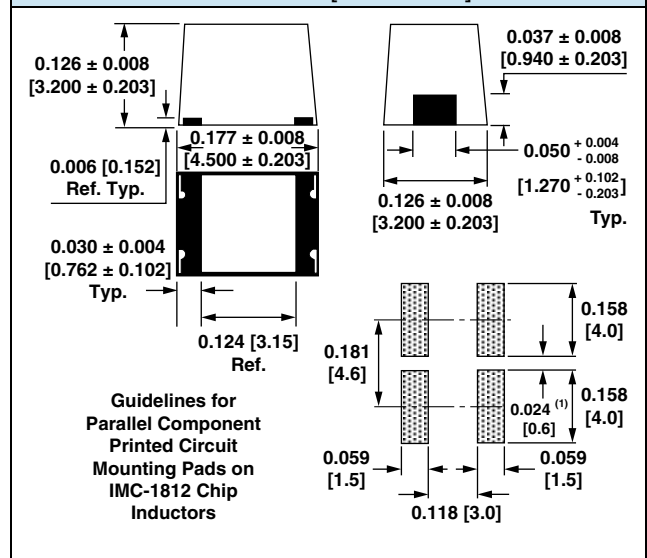
Operating temperature: -55 °C to +125 °C

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>(1)</sup> Recommended minimum spacing between components

## PART MARKING

- Vishay Dale
- Inductance code
- Date code



| DESCRIPTION |                  |                      |              |                                |
|-------------|------------------|----------------------|--------------|--------------------------------|
| IMC-1812    | 10 $\mu$ H       | $\pm 10 \%$          | ER           | e3                             |
| MODEL       | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

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



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