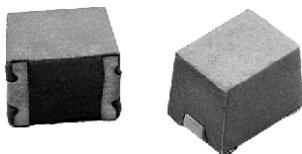


## Wirewound, Surface Mount, Molded Inductors



| STANDARD ELECTRICAL SPECIFICATIONS |            |                     |           |                      |                             |  |
|------------------------------------|------------|---------------------|-----------|----------------------|-----------------------------|--|
| IND.<br>( $\mu$ H)                 | TOL.       | TEST FREQ.<br>(MHz) | Q<br>MIN. | SRF<br>MIN.<br>(MHz) | DCR<br>MAX.<br>( $\Omega$ ) | RATED DC<br>CURRENT<br>(mA) <sup>(1)</sup> |
|                                    |            | L & Q               |           | MAX.                 | (mA)                        |  |
| 0.010                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.20                        | 450  |
| 0.012                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.20                        | 450  |
| 0.018                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.20                        | 450  |
| 0.022                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.20                        | 450  |
| 0.027                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.20                        | 450  |
| 0.033                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.30                        | 450  |
| 0.039                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.30                        | 450  |
| 0.047                              | $\pm 20\%$ | 50.0                | 50        | 1000                 | 0.30                        | 450  |
| 0.056                              | $\pm 20\%$ | 50.0                | 40        | 900                  | 0.35                        | 450  |
| 0.068                              | $\pm 20\%$ | 50.0                | 40        | 800                  | 0.35                        | 450  |
| 0.082                              | $\pm 20\%$ | 50.0                | 40        | 700                  | 0.40                        | 450  |
| 0.10                               | $\pm 20\%$ | 25.2                | 30        | 650                  | 0.32                        | 450  |
| 0.12                               | $\pm 20\%$ | 25.2                | 30        | 600                  | 0.30                        | 450  |
| 0.15                               | $\pm 20\%$ | 25.2                | 30        | 500                  | 0.30                        | 450  |
| 0.18                               | $\pm 20\%$ | 25.2                | 30        | 400                  | 0.35                        | 450  |
| 0.22                               | $\pm 20\%$ | 25.2                | 30        | 350                  | 0.40                        | 450  |
| 0.27                               | $\pm 20\%$ | 25.2                | 30        | 300                  | 0.45                        | 450  |
| 0.33                               | $\pm 20\%$ | 25.2                | 30        | 250                  | 0.55                        | 430  |
| 0.39                               | $\pm 20\%$ | 25.2                | 30        | 220                  | 0.70                        | 380  |
| 0.47                               | $\pm 10\%$ | 25.2                | 30        | 190                  | 0.80                        | 355  |
| 0.56                               | $\pm 10\%$ | 25.2                | 30        | 170                  | 1.20                        | 285  |
| 0.68                               | $\pm 10\%$ | 25.2                | 30        | 150                  | 1.40                        | 270  |
| 0.82                               | $\pm 10\%$ | 25.2                | 30        | 140                  | 1.60                        | 250  |
| 1.0                                | $\pm 10\%$ | 7.96                | 50        | 100                  | 0.50                        | 450  |
| 1.2                                | $\pm 10\%$ | 7.96                | 50        | 80.0                 | 0.55                        | 430  |
| 1.5                                | $\pm 10\%$ | 7.96                | 50        | 70.0                 | 0.60                        | 410  |
| 1.8                                | $\pm 10\%$ | 7.96                | 50        | 60.0                 | 0.65                        | 390  |
| 2.2                                | $\pm 10\%$ | 7.96                | 50        | 55.0                 | 0.70                        | 380  |
| 2.7                                | $\pm 10\%$ | 7.96                | 50        | 50.0                 | 0.75                        | 370  |
| 3.3                                | $\pm 10\%$ | 7.96                | 50        | 45.0                 | 0.80                        | 355  |
| 3.9                                | $\pm 10\%$ | 7.96                | 50        | 40.0                 | 0.90                        | 330  |
| 4.7                                | $\pm 10\%$ | 7.96                | 50        | 35.0                 | 1.00                        | 315  |
| 5.6                                | $\pm 10\%$ | 7.96                | 50        | 33.0                 | 1.10                        | 300  |
| 6.8                                | $\pm 10\%$ | 7.96                | 50        | 27.0                 | 1.20                        | 285  |
| 8.2                                | $\pm 10\%$ | 7.96                | 50        | 25.0                 | 1.40                        | 270  |
| 10.0                               | $\pm 10\%$ | 2.52                | 50        | 20.0                 | 1.60                        | 250  |
| 12.0                               | $\pm 10\%$ | 2.52                | 50        | 18.0                 | 2.00                        | 225  |
| 15.0                               | $\pm 10\%$ | 2.52                | 50        | 17.0                 | 2.50                        | 200  |
| 18.0                               | $\pm 10\%$ | 2.52                | 50        | 15.0                 | 2.80                        | 190  |
| 22.0                               | $\pm 10\%$ | 2.52                | 50        | 13.0                 | 3.20                        | 180  |
| 27.0                               | $\pm 10\%$ | 2.52                | 50        | 12.0                 | 3.60                        | 170  |
| 33.0                               | $\pm 10\%$ | 2.52                | 50        | 11.0                 | 4.00                        | 160  |
| 39.0                               | $\pm 10\%$ | 2.52                | 50        | 11.0                 | 4.50                        | 150  |
| 47.0                               | $\pm 10\%$ | 2.52                | 50        | 10.0                 | 5.00                        | 140  |
| 56.0                               | $\pm 10\%$ | 2.52                | 50        | 9.0                  | 5.50                        | 135  |
| 68.0                               | $\pm 10\%$ | 2.52                | 50        | 9.0                  | 6.00                        | 130  |
| 82.0                               | $\pm 10\%$ | 2.52                | 50        | 8.0                  | 7.00                        | 120  |
| 100.0                              | $\pm 10\%$ | 0.79                | 40        | 8.0                  | 8.00                        | 110  |
| 120.0                              | $\pm 10\%$ | 0.79                | 40        | 6.0                  | 8.00                        | 110  |
| 150.0                              | $\pm 10\%$ | 0.79                | 40        | 5.0                  | 9.00                        | 105  |
| 180.0                              | $\pm 10\%$ | 0.79                | 40        | 5.0                  | 9.50                        | 102  |
| 220.0                              | $\pm 10\%$ | 0.79                | 40        | 4.0                  | 10.0                        | 100  |
| 270.0                              | $\pm 10\%$ | 0.79                | 40        | 4.0                  | 12.0                        | 92   |
| 330.0                              | $\pm 10\%$ | 0.79                | 40        | 3.5                  | 14.0                        | 85   |
| 390.0                              | $\pm 10\%$ | 0.79                | 40        | 3.0                  | 16.0                        | 80   |
| 470.0                              | $\pm 10\%$ | 0.79                | 40        | 3.0                  | 26.0                        | 62   |
| 560.0                              | $\pm 10\%$ | 0.79                | 30        | 3.0                  | 30.0                        | 50   |
| 680.0                              | $\pm 10\%$ | 0.79                | 30        | 3.0                  | 30.0                        | 50   |
| 820.0                              | $\pm 10\%$ | 0.79                | 30        | 2.5                  | 35.0                        | 30   |
| 1000.0                             | $\pm 10\%$ | 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
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

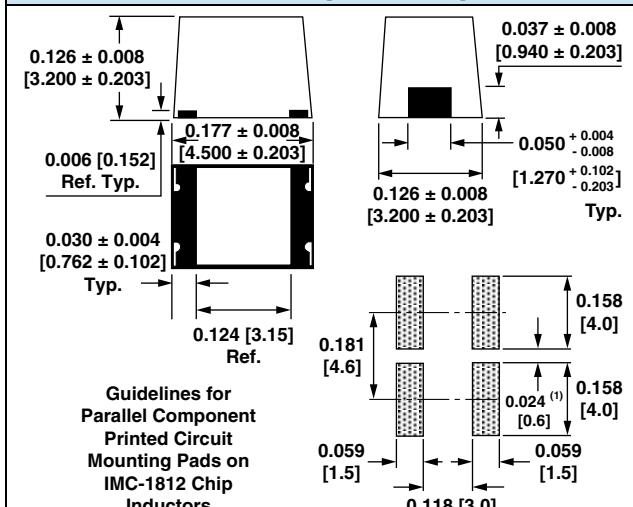

**RoHS  
COMPLIANT**
**ELECTRICAL SPECIFICATIONS**
**Inductance range:** 0.010  $\mu$ H to 1000  $\mu$ H

**Special tolerances available upon request**
**Operating temperature:** -55 °C to +125 °C

**Coilform material:** Non-magnetic for 0.010  $\mu$ H to 0.82  $\mu$ H  
Powdered iron for 1.0  $\mu$ H to 120  $\mu$ H  
Ferrite for 150  $\mu$ H to 1000  $\mu$ H

**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**

(2) Recommended minimum spacing between components

**PART MARKING**

- Vishay Dale
- Inductance value
- 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 |
|---|---|---|

PRODUCT  
FAMILY

|   |   |   |   |
|---|---|---|---|
| 1 | 8 | 1 | 2 |
|---|---|---|---|

SIZE

|   |   |
|---|---|
| E | R |
|---|---|

PACKAGE  
CODE

|   |   |   |
|---|---|---|
| 1 | 0 | 0 |
|---|---|---|

INDUCTANCE  
VALUE

|   |
|---|
| K |
|---|

TOL.

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