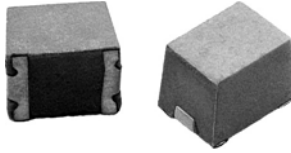


# Wirewound, Surface Mount, Molded, Shielded Inductors



| 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            |        |                |              |                                      |
| 0.10                               | ± 20 % | 25.2             | 30     | 460            | 0.23         | 552                                  |
| 0.12                               | ± 20 % | 25.2             | 30     | 400            | 0.26         | 519                                  |
| 0.15                               | ± 20 % | 25.2             | 30     | 390            | 0.29         | 491                                  |
| 0.18                               | ± 20 % | 25.2             | 30     | 350            | 0.32         | 468                                  |
| 0.22                               | ± 20 % | 25.2             | 30     | 310            | 0.36         | 441                                  |
| 0.33                               | ± 20 % | 25.2             | 30     | 280            | 0.40         | 418                                  |
| 0.39                               | ± 20 % | 25.2             | 30     | 240            | 0.45         | 394                                  |
| 0.47                               | ± 20 % | 25.2             | 30     | 215            | 0.60         | 342                                  |
| 0.56                               | ± 20 % | 25.2             | 30     | 205            | 0.75         | 306                                  |
| 0.68                               | ± 20 % | 25.2             | 30     | 195            | 0.80         | 296                                  |
| 0.82                               | ± 20 % | 25.2             | 30     | 165            | 0.95         | 271                                  |
| 0.8                                | ± 20 % | 25.2             | 30     | 155            | 1.20         | 242                                  |
| 1.0                                | ± 10 % | 7.96             | 30     | 140            | 0.35         | 447                                  |
| 1.2                                | ± 10 % | 7.96             | 30     | 120            | 0.38         | 429                                  |
| 1.5                                | ± 10 % | 7.96             | 30     | 100            | 0.40         | 418                                  |
| 1.8                                | ± 10 % | 7.96             | 30     | 90.0           | 0.43         | 403                                  |
| 2.2                                | ± 10 % | 7.96             | 30     | 80.0           | 0.46         | 390                                  |
| 2.7                                | ± 10 % | 7.96             | 30     | 67.0           | 0.49         | 378                                  |
| 3.3                                | ± 10 % | 7.96             | 30     | 61.0           | 0.55         | 357                                  |
| 3.9                                | ± 10 % | 7.96             | 30     | 56.0           | 0.59         | 344                                  |
| 4.7                                | ± 10 % | 7.96             | 30     | 50.0           | 0.62         | 336                                  |
| 5.6                                | ± 10 % | 7.96             | 30     | 40.0           | 0.69         | 333                                  |
| 6.8                                | ± 10 % | 7.96             | 30     | 32.0           | 0.75         | 306                                  |
| 8.2                                | ± 10 % | 7.96             | 30     | 30.0           | 0.82         | 292                                  |
| 10.0                               | ± 10 % | 2.52             | 50     | 25.0           | 0.90         | 279                                  |
| 12.0                               | ± 10 % | 2.52             | 50     | 22.0           | 1.00         | 265                                  |
| 15.0                               | ± 10 % | 2.52             | 50     | 18.0           | 1.10         | 252                                  |
| 18.0                               | ± 10 % | 2.52             | 50     | 15.0           | 1.24         | 238                                  |
| 22.0                               | ± 10 % | 2.52             | 50     | 14.0           | 1.36         | 227                                  |
| 27.0                               | ± 10 % | 2.52             | 50     | 13.0           | 1.56         | 212                                  |
| 33.0                               | ± 10 % | 2.52             | 50     | 12.0           | 1.72         | 202                                  |
| 39.0                               | ± 10 % | 2.52             | 50     | 11.0           | 1.89         | 192                                  |
| 47.0                               | ± 10 % | 2.52             | 50     | 9.0            | 2.10         | 183                                  |
| 56.0                               | ± 10 % | 2.52             | 50     | 8.0            | 2.34         | 173                                  |
| 68.0                               | ± 10 % | 2.52             | 50     | 7.6            | 2.60         | 164                                  |
| 82.0                               | ± 10 % | 2.52             | 50     | 7.2            | 2.86         | 156                                  |
| 100.0                              | ± 10 % | 0.796            | 40     | 7.0            | 3.25         | 147                                  |
| 120.0                              | ± 10 % | 0.796            | 40     | 6.0            | 3.64         | 139                                  |
| 150.0                              | ± 10 % | 0.796            | 40     | 5.0            | 4.16         | 130                                  |
| 180.0                              | ± 10 % | 0.796            | 40     | 4.5            | 5.72         | 111                                  |
| 220.0                              | ± 10 % | 0.796            | 40     | 4.2            | 6.30         | 105                                  |
| 270.0                              | ± 10 % | 0.796            | 40     | 4.0            | 6.90         | 101                                  |
| 330.0                              | ± 10 % | 0.796            | 40     | 3.7            | 7.54         | 96                                   |
| 390.0                              | ± 10 % | 0.796            | 40     | 3.5            | 8.20         | 92                                   |
| 470.0                              | ± 10 % | 0.796            | 40     | 3.3            | 9.20         | 87                                   |
| 560.0                              | ± 10 % | 0.796            | 30     | 2.8            | 10.50        | 82                                   |
| 680.0                              | ± 10 % | 0.796            | 40     | 2.6            | 12.00        | 76                                   |
| 820.0                              | ± 10 % | 0.796            | 30     | 2.2            | 13.50        | 72                                   |
| 1000.0                             | ± 10 % | 0.252            | 30     | 2.0            | 16.00        | 66                                   |

**Note**

(1) 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
- Compatible with vapor phase and infrared reflow soldering
- Shielded construction minimizes coupling to other components
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS COMPLIANT**  
HALOGEN FREE

**ELECTRICAL SPECIFICATIONS**

Inductance range: 0.10 μH to 1000 μH

Special tolerances available upon request

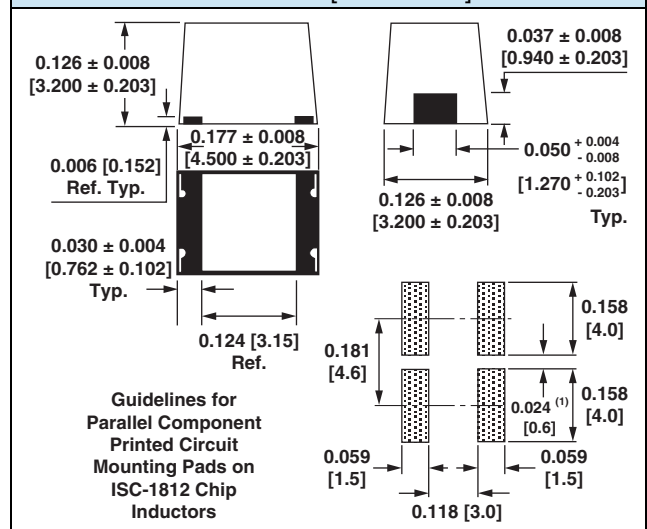
Operating temperature: -55 °C to +125 °C

Coilform material: Non-magnetic for 0.10 μH to 0.82 μH  
Powdered iron for 1.0 μH to 22 μH  
Ferrite for 27 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**

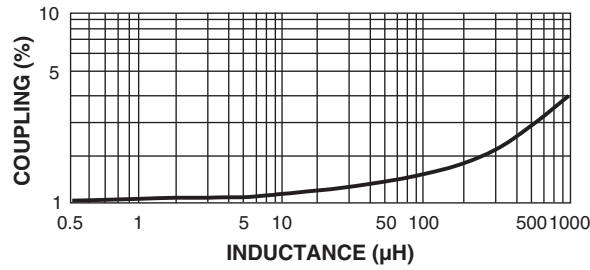
(1) Recommended minimum spacing between components

**PART MARKING**

- Vishay Dale
- Inductance value
- Date code



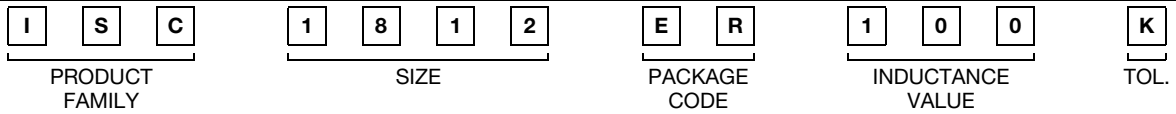
**COUPLING SPECIFICATIONS** (maximum)



**DESCRIPTION**

|          |                  |                      |              |                                |
|----------|------------------|----------------------|--------------|--------------------------------|
| ISC-1812 | 10 µH            | ± 10 %               | ER           | e3                             |
| MODEL    | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

**GLOBAL PART NUMBER**





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