

# Wirewound, Surface-Mount Molded Inductors


**RoHS**  
COMPLIANT

## 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               |           |                      |                             |                                            |
| 0.010              | 20 % | 50                  | 30        | 1000                 | 0.13                        | 734                                        |
| 0.012              | 20 % | 50                  | 30        | 1000                 | 0.14                        | 707                                        |
| 0.015              | 20 % | 50                  | 30        | 1000                 | 0.16                        | 661                                        |
| 0.018              | 20 % | 50                  | 30        | 1000                 | 0.18                        | 624                                        |
| 0.022              | 20 % | 50                  | 30        | 1000                 | 0.20                        | 592                                        |
| 0.027              | 20 % | 50                  | 30        | 1000                 | 0.22                        | 564                                        |
| 0.033              | 20 % | 50                  | 30        | 1000                 | 0.24                        | 540                                        |
| 0.039              | 20 % | 50                  | 30        | 1000                 | 0.27                        | 530                                        |
| 0.047              | 20 % | 50                  | 30        | 1000                 | 0.30                        | 483                                        |
| 0.056              | 20 % | 50                  | 30        | 1000                 | 0.33                        | 470                                        |
| 0.068              | 20 % | 50                  | 30        | 1000                 | 0.36                        | 450                                        |
| 0.082              | 20 % | 50                  | 30        | 900                  | 0.40                        | 450                                        |
| 0.10               | 20 % | 50                  | 30        | 700                  | 0.44                        | 450                                        |
| 0.12               | 20 % | 25.2                | 30        | 500                  | 0.22                        | 584                                        |
| 0.15               | 20 % | 25.2                | 30        | 450                  | 0.25                        | 548                                        |
| 0.18               | 20 % | 25.2                | 30        | 400                  | 0.28                        | 518                                        |
| 0.22               | 20 % | 25.2                | 30        | 350                  | 0.32                        | 484                                        |
| 0.27               | 20 % | 25.2                | 30        | 320                  | 0.36                        | 456                                        |
| 0.33               | 20 % | 25.2                | 30        | 300                  | 0.40                        | 453                                        |
| 0.39               | 20 % | 25.2                | 30        | 250                  | 0.45                        | 450                                        |
| 0.47               | 20 % | 25.2                | 30        | 220                  | 0.50                        | 450                                        |
| 0.56               | 20 % | 25.2                | 30        | 180                  | 0.55                        | 450                                        |
| 0.68               | 20 % | 25.2                | 30        | 160                  | 0.60                        | 450                                        |
| 0.82               | 20 % | 25.2                | 30        | 140                  | 0.67                        | 450                                        |
| 1.0                | 10 % | 7.96                | 30        | 120                  | 0.70                        | 400                                        |
| 1.2                | 10 % | 7.96                | 30        | 100                  | 0.75                        | 390                                        |
| 1.5                | 10 % | 7.96                | 30        | 85                   | 0.85                        | 370                                        |
| 1.8                | 10 % | 7.96                | 30        | 80                   | 0.90                        | 350                                        |
| 2.2                | 10 % | 7.96                | 30        | 75                   | 1.0                         | 320                                        |
| 2.7                | 10 % | 7.96                | 30        | 70                   | 1.1                         | 290                                        |
| 3.3                | 10 % | 7.96                | 30        | 60                   | 1.2                         | 260                                        |
| 3.9                | 10 % | 7.96                | 30        | 55                   | 1.3                         | 250                                        |
| 4.7                | 10 % | 7.96                | 30        | 50                   | 1.5                         | 224                                        |
| 5.6                | 10 % | 7.96                | 30        | 45                   | 1.6                         | 217                                        |
| 6.8                | 10 % | 7.96                | 30        | 40                   | 1.8                         | 204                                        |
| 8.2                | 10 % | 7.96                | 30        | 38                   | 2.0                         | 194                                        |
| 10                 | 10 % | 2.52                | 30        | 33                   | 2.1                         | 189                                        |
| 12                 | 10 % | 2.52                | 30        | 30                   | 2.5                         | 173                                        |
| 15                 | 10 % | 2.52                | 30        | 21                   | 2.8                         | 164                                        |
| 18                 | 10 % | 2.52                | 30        | 20                   | 3.3                         | 151                                        |
| 22                 | 10 % | 2.52                | 30        | 19                   | 3.7                         | 145                                        |
| 27                 | 10 % | 2.52                | 30        | 18                   | 5.0                         | 122                                        |
| 33                 | 10 % | 2.52                | 30        | 16                   | 6.0                         | 112                                        |
| 39                 | 10 % | 2.52                | 30        | 15                   | 7.0                         | 104                                        |
| 47                 | 10 % | 2.52                | 30        | 14                   | 9.0                         | 91                                         |
| 56                 | 10 % | 2.52                | 30        | 12                   | 10.0                        | 87                                         |
| 68                 | 10 % | 2.52                | 30        | 11                   | 11.0                        | 83                                         |
| 82                 | 10 % | 2.52                | 30        | 10                   | 12.0                        | 79                                         |
| 100                | 10 % | 0.796               | 20        | 9                    | 14.0                        | 73                                         |
| 120                | 10 % | 0.796               | 15        | 8                    | 11.0                        | 70                                         |
| 150                | 10 % | 0.796               | 15        | 6.5                  | 15.0                        | 65                                         |
| 180                | 10 % | 0.796               | 15        | 6                    | 17.0                        | 60                                         |
| 220                | 10 % | 0.796               | 15        | 6                    | 21.0                        | 50                                         |

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

## FEATURES

- Printed marking
- Molded construction provides superior strength and moisture resistance
- Compatible with vapor phase and infrared reflow soldering
- Tape and reel packaging for automatic handling, 2000/reel, EIA-481
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

## ELECTRICAL SPECIFICATIONS

Inductance range: 0.01  $\mu$ H to 220  $\mu$ H

Special tolerances available upon request

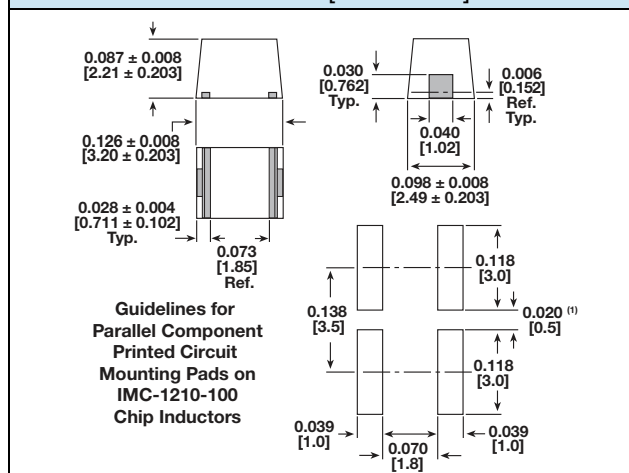
Operating temperature: -55 °C to +125 °C

Coilform material: non-magnetic from 0.01  $\mu$ H to 0.10  $\mu$ H; powdered iron from 0.12  $\mu$ H to 100  $\mu$ H; ferrite from 120  $\mu$ H to 220  $\mu$ H

## TEST EQUIPMENT

- HP4342A Q meter with Vishay Dale test fixture or equivalent
- HP4191A RF impedance analyzer (for SRF measurements)
- Wheatstone bridge

## DIMENSIONS in inches [millimeters]


**Note**
<sup>(1)</sup> Recommended spacing between components

## PART MARKING

- Vishay Dale
- Inductance code
- Date code

## DESCRIPTION

| IMC-1210 | 10 $\mu$ H       | ± 10 %               | ER           | e3                             |
|----------|------------------|----------------------|--------------|--------------------------------|
| MODEL    | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

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



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