

Vishay Dale

# Wirewound, Surface Mount Inductors



| STANDARD ELECTRICAL                                  |   |  |   | SPECIFICATIONS   |  |  |  |
|--|---|--|---|--|--|--|--|
| IND.<br>(nH)   | TOL.  | TEST<br>FREQ.<br>(MHz)<br>L & Q                                    | Q<br>MIN.   | SRF<br>MIN.<br>(MHz)   | DCR<br>MAX.<br>(Ω)   | RATED DC<br>CURRENT<br>(mA) <sup>(1)</sup>   |  |
| 1122222333445566788999111111111222222333699444556882 | H H H H H H H<br>A n n H H H H<br>A n n H H H H<br>H H, N N N N N N N N N N N N N N N N N N | 250<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>250 | $\begin{array}{c} 1366 \\ 1168 \\ 1168 \\ 1160 \\ 200 \\ 1153 \\ 220 \\ 220 \\ 220 \\ 120 \\ 120 \\ 120 \\ 220 \\ 120 \\ $ | $\begin{array}{c} 6000\\ 6000\\ 6000\\ 6000\\ 6000\\ 6000\\ 6000\\ 6000\\ 4775\\ 5800\\ 4800\\ 5800\\ 4400\\ 4100\\ 3900\\ 3680\\ 3450\\ 3100\\ 3000\\ 2720\\ 2480\\ 2350\\ 200\\ 200\\ 200\\ 200\\ 200\\ 200\\ 200\\ 2$ | 0.045<br>0.070<br>0.070<br>0.070<br>0.068<br>0.120<br>0.066<br>0.066<br>0.066<br>0.091<br>0.130<br>0.083<br>0.083<br>0.083<br>0.083<br>0.083<br>0.083<br>0.083<br>0.083<br>0.083<br>0.104<br>0.200<br>0.104<br>0.200<br>0.104<br>0.200<br>0.104<br>0.200<br>0.120<br>0.210<br>0.210<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.2200<br>0.220<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200<br>0.2200000000 | 1360<br>1040<br>960<br>790<br>640<br>840<br>840<br>840<br>700<br>640<br>800<br>760<br>760<br>760<br>680<br>680<br>680<br>680<br>680<br>680<br>680<br>680<br>680<br>6 |  |

Note

(1) Value obtained when current flows and temperature has risen 15 °C

#### **FEATURES**

- Excellent solderability and resistance to soldering heat
- Suitable for reflow soldering
- RoHS High reliability and easy surface mount COMPLIANT assembly HALOGEN FREE
- Wide range of inductance values available
- Tape and reel packaging for automatic handling, 10 000/reel EIA 481
- · Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

### **ELECTRICAL SPECIFICATIONS**

Inductance Range: 1 nH to 47 nH

Operating Temperature: - 40 °C to + 125 °C Storage Temperature: - 40 °C to + 125 °C

### **TEST EQUIPMENT**

- Inductance is measured in HP4287A RF LCR meter with HP16193 fixture
- Q is measured in HP4287A RF LCR meter with HP16193 fixture
- SRF is measured in HP8753E RF network analyzer
- DCR is measured in HP4338B millohmeter



| DESCRIPTION        |                  |               |                        |                           |                |                     |  |  |  |  |
|--------------------|------------------|---------------|------------------------|---------------------------|----------------|---------------------|--|--|--|--|
| IMC-0402-01        | 10 nH            | ± 5 %         |                        | ER                        | e4             |                     |  |  |  |  |
| MODEL              | INDUCTANCE VALUE | INDUCTANCE TO | OLERANCE               | PACKAGE CODE              | JEDEC LEAD (Pb | )-FREE STANDARD     |  |  |  |  |
| GLOBAL PA          | RT NUMBER        |               |                        |                           |                |                     |  |  |  |  |
|                    | C 0 4            | 02            | E R<br>PACKAGE<br>CODE | 1 0<br>INDUCTANO<br>VALUE | N J<br>CE TOL. | 0 1<br>SERIES       |  |  |  |  |
| Revision: 18-Sep-1 | 3                |               | 1                      |                           | Doci           | ument Number: 34163 |  |  |  |  |

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| TAPE AND REEL SPECIFICATIONS in inches [millimeters] |   |   |                 |                 |                 |  |                 |                 |                  |  |
|--|---|---|-----------------|-----------------|-----------------|--|-----------------|-----------------|------------------|--|
| REEL DIMENS  | SIONS   | TAPE DIMENSIONS   0.07 ± 0.002<br>[1.75 ± 0.05]   0.14 ± 0.002 0.158 ± 0.004 0.08 ± 0.002<br>[2.5 ± 0.05] 0.1 ± 0.002<br>[0.3 ± 0.05]   0.14 ± 0.002 0.158 ± 0.004 0.08 ± 0.002<br>[0.3 ± 0.05] 0.1 ± 0.002<br>[0.3 ± 0.05]   0.15 ± 0.008 0.08 1 1   0.315 ± 0.008 0.08 1 1   [8.0 ± 0.2] 0.08 1 1   1 1 1 1 1 |                 |                 |                 | RECOMMENDED PATTERN  |                 |                 |                  |  |
| [2   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |   |                 |                 |                 | $ \begin{array}{  c  } \hline & B \\ \hline & A \\ \hline & A \\ \hline & C \\ \hline & C \\ \hline & \downarrow \\ \hline \end{array} $ |                 |                 |                  |  |
| MODEL  | UNITS PER REEL  | MODEL   | Α               | В               | т               | MODEL  | Α               | В               | С                |  |
| IMC-0402-01  | 10 000  | IMC-0402-01   | 0.028<br>[0.70] | 0.047<br>[1.20] | 0.028<br>[0.70] | IMC-0402-01  | 0.018<br>[0.45] | 0.063<br>[1.60] | 0.0256<br>[0.65] |  |

Revision: 18-Sep-13

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