

## Inductors, Subminiature, Shielded

### Subminiature, Shielded



### FEATURES

- Classification is Grade 2, Class B
- Inductance range is 0.10  $\mu$ H to 1000  $\mu$ H
- High inductance-to-size ratio
- 0.133" [3.38 mm] diameter by 0.335" [8.51 mm] length
- Subminiature shielded inductor
- Solves special problems in density circuit application



**RoHS**  
COMPLIANT

### STANDARD ELECTRICAL SPECIFICATIONS

| MODEL       | IND.<br>( $\mu$ H) | TOL.       | Q<br>MIN. | TEST<br>FREQ.<br>(MHz) | SRF<br>MIN.<br>(MHz) | DCR<br>MAX.<br>(Ohms) | RATED<br>DC<br>CURRE | INCR.*<br>CURRENT<br>(mA) |          |
|-------------|--------------------|------------|-----------|------------------------|----------------------|-----------------------|----------------------|---------------------------|----------|
| IMS-2WWD-40 | 0.10               | $\pm 10\%$ | 42        | 25                     | > 400                | 0.112                 | 1720                 | > 1720                    | PHENOLIC |
| IMS-2WWD-40 | 0.12               | $\pm 10\%$ | 42        | 25                     | > 400                | 0.126                 | 1630                 | > 1630                    |          |
| IMS-2WWD-40 | 0.15               | $\pm 10\%$ | 42        | 25                     | > 400                | 0.138                 | 1550                 | > 1550                    |          |
| IMS-2WWD-40 | 0.18               | $\pm 10\%$ | 42        | 25                     | 366                  | 0.165                 | 1420                 | > 1420                    |          |
| IMS-2WWD-40 | 0.22               | $\pm 10\%$ | 42        | 25                     | 331                  | 0.198                 | 1330                 | > 1330                    |          |
| IMS-2WWD-40 | 0.27               | $\pm 10\%$ | 42        | 25                     | 298                  | 0.220                 | 1230                 | > 1230                    |          |
| IMS-2WWD-40 | 0.33               | $\pm 10\%$ | 42        | 25                     | 288                  | 0.258                 | 1140                 | > 1140                    |          |
| IMS-2WWD-40 | 0.39               | $\pm 10\%$ | 42        | 25                     | 271                  | 0.292                 | 1060                 | > 1060                    |          |
| IMS-2WWD-40 | 0.47               | $\pm 10\%$ | 41        | 25                     | 247                  | 0.360                 | 960                  | > 960                     |          |
| IMS-2WWD-40 | 0.56               | $\pm 10\%$ | 39        | 25                     | 236                  | 0.397                 | 915                  | > 915                     |          |
| IMS-2WWD-40 | 0.68               | $\pm 10\%$ | 36        | 25                     | 216                  | 0.472                 | 840                  | > 840                     | IRON     |
| IMS-2WWD-40 | 0.82               | $\pm 10\%$ | 35        | 25                     | 200                  | 0.638                 | 720                  | > 720                     |          |
| IMS-2WWD-40 | 1.0                | $\pm 10\%$ | 42        | 25                     | 136                  | 0.208                 | 1260                 | > 1260                    |          |
| IMS-2WWD-40 | 1.2                | $\pm 10\%$ | 38        | 7.9                    | 120                  | 0.225                 | 1210                 | > 1210                    |          |
| IMS-2WWD-40 | 1.5                | $\pm 10\%$ | 38        | 7.9                    | 111                  | 0.265                 | 1120                 | > 1120                    |          |
| IMS-2WWD-40 | 1.8                | $\pm 10\%$ | 38        | 7.9                    | 103                  | 0.285                 | 1080                 | > 1080                    |          |
| IMS-2WWD-40 | 2.2                | $\pm 10\%$ | 36        | 7.9                    | 94                   | 0.330                 | 1000                 | > 1000                    |          |
| IMS-2WWD-40 | 2.7                | $\pm 10\%$ | 38        | 7.9                    | 85                   | 0.381                 | 935                  | > 935                     |          |
| IMS-2WWD-40 | 3.3                | $\pm 10\%$ | 38        | 7.9                    | 78                   | 0.432                 | 875                  | > 875                     |          |
| IMS-2WWD-40 | 3.9                | $\pm 10\%$ | 40        | 7.9                    | 73                   | 0.576                 | 755                  | > 755                     |          |
| IMS-2WWD-40 | 4.7                | $\pm 10\%$ | 42        | 7.9                    | 66                   | 0.787                 | 650                  | > 650                     | FERRITE  |
| IMS-2WWD-40 | 5.6                | $\pm 10\%$ | 42        | 7.9                    | 62                   | 1.04                  | 565                  | > 565                     |          |
| IMS-2WWD-40 | 6.8                | $\pm 10\%$ | 45        | 7.9                    | 54                   | 1.40                  | 485                  | > 485                     |          |
| IMS-2WWD-40 | 8.2                | $\pm 10\%$ | 47        | 7.9                    | 50                   | 1.68                  | 440                  | > 440                     |          |
| IMS-2WWD-40 | 10                 | $\pm 10\%$ | 51        | 7.9                    | 44                   | 2.58                  | 355                  | > 355                     |          |
| IMS-2WWD-40 | 12                 | $\pm 10\%$ | 51        | 2.5                    | 39                   | 3.65                  | 300                  | > 300                     |          |
| IMS-2WWD-40 | 15                 | $\pm 10\%$ | 45        | 2.5                    | 44                   | 0.862                 | 620                  | 200                       |          |
| IMS-2WWD-40 | 18                 | $\pm 10\%$ | 43        | 2.5                    | 40                   | 1.02                  | 570                  | 175                       |          |
| IMS-2WWD-40 | 22                 | $\pm 10\%$ | 42        | 2.5                    | 36                   | 1.12                  | 545                  | 160                       |          |
| IMS-2WWD-40 | 27                 | $\pm 10\%$ | 37        | 2.5                    | 33                   | 1.28                  | 510                  | 155                       |          |
| IMS-2WWD-40 | 33                 | $\pm 10\%$ | 46        | 2.5                    | 30                   | 1.70                  | 440                  | 150                       |          |
| IMS-2WWD-40 | 39                 | $\pm 10\%$ | 38        | 2.5                    | 26                   | 1.99                  | 405                  | 145                       |          |
| IMS-2WWD-40 | 47                 | $\pm 10\%$ | 42        | 2.5                    | 23                   | 2.41                  | 370                  | 140                       |          |
| IMS-2WWD-40 | 56                 | $\pm 10\%$ | 41        | 2.5                    | 22                   | 2.85                  | 340                  | 130                       |          |
| IMS-2WWD-40 | 68                 | $\pm 10\%$ | 46        | 2.5                    | 18                   | 3.21                  | 320                  | 120                       |          |
| IMS-2WWD-40 | 82                 | $\pm 10\%$ | 46        | 2.5                    | 17                   | 3.57                  | 305                  | 115                       |          |
| IMS-2WWD-40 | 100                | $\pm 10\%$ | 43        | 2.5                    | 15                   | 4.10                  | 280                  | 100                       |          |
| IMS-2WWD-40 | 120                | $\pm 10\%$ | 50        | 0.79                   | 13                   | 5.97                  | 235                  | 80                        |          |
| IMS-2WWD-40 | 150                | $\pm 10\%$ | 49        | 0.79                   | 12                   | 7.05                  | 215                  | 68                        |          |
| IMS-2WWD-40 | 180                | $\pm 10\%$ | 56        | 0.79                   | 11                   | 8.12                  | 200                  | 64                        |          |
| IMS-2WWD-40 | 220                | $\pm 10\%$ | 53        | 0.79                   | 10                   | 14.8                  | 150                  | 60                        |          |
| IMS-2WWD-40 | 270                | $\pm 10\%$ | 57        | 0.79                   | 9                    | 16.8                  | 140                  | 58                        |          |
| IMS-2WWD-40 | 330                | $\pm 10\%$ | 57        | 0.79                   | 8.5                  | 18.6                  | 130                  | 56                        |          |
| IMS-2WWD-40 | 390                | $\pm 10\%$ | 57        | 0.79                   | 8                    | 21.1                  | 120                  | 54                        |          |
| IMS-2WWD-40 | 470                | $\pm 10\%$ | 50        | 0.79                   | 7                    | 32.2                  | 100                  | 52                        |          |
| IMS-2WWD-40 | 560                | $\pm 10\%$ | 50        | 0.79                   | 6                    | 36.4                  | 95                   | 50                        |          |
| IMS-2WWD-40 | 680                | $\pm 10\%$ | 56        | 0.79                   | 5.5                  | 41.1                  | 90                   | 48                        |          |
| IMS-2WWD-40 | 820                | $\pm 10\%$ | 49        | 0.79                   | 5                    | 45.0                  | 85                   | 47                        |          |
| IMS-2WWD-40 | 1000               | $\pm 10\%$ | 49        | 0.79                   | 4.5                  | 52.0                  | 80                   | 45                        |          |

\* **Incremental Current:** The DC current required to cause a 5 % reduction in the nominal inductance value.

### ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:**  $\pm 10\%$  on Q-Meter

**Dielectric Strength:** 700 VRMS at sea level

**Operating Temperature:** - 55 °C to + 125 °C

**Self-Resonant Frequency:** Minimum SRF measured with full length leads on Grid-Dip Meter

**Rating:** Maximum current based on 1/3 watt dissipation

### MECHANICAL SPECIFICATIONS

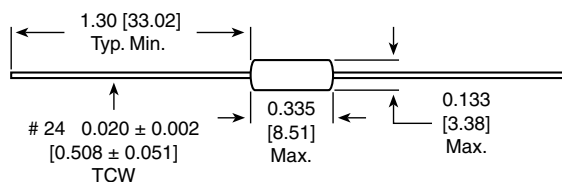
**Terminal Strength:** Meets 5 pound pull test

### DENSITY SPECIFICATIONS

**Weight:** 0.50 gram maximum

**Shielding:** Less than 3 % coupling with two units mounted side by side at 1000 cycles

### DIMENSIONS in inches [millimeters]



### MARKING

- Color coded



## ORDERING INFORMATION

|             |                     |                         |                 |                                  |
|-------------|---------------------|-------------------------|-----------------|----------------------------------|
| IMS-2WWD-40 | 0.10 $\mu$ H        | 10 %                    | ER              | e2                               |
| MODEL       | INDUCTANCE<br>VALUE | INDUCTANCE<br>TOLERANCE | PACKAGE<br>CODE | JEDEC LEAD (Pb)-FREE<br>STANDARD |

## GLOBAL PART NUMBER

|       |   |   |   |   |   |   |   |                 |   |                     |   |   |                         |        |   |
|-------|---|---|---|---|---|---|---|-----------------|---|---------------------|---|---|-------------------------|--------|---|
| I     | M | S | 0 | 2 | W | W | D | E               | R | R                   | 1 | 0 | K                       | 4      | 0 |
| MODEL |   |   |   |   |   |   |   | PACKAGE<br>CODE |   | INDUCTANCE<br>VALUE |   |   | INDUCTANCE<br>TOLERANCE | SERIES |   |



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