# IMS-2WWD-40

Vishay Dale

# Inductors, Subminiature, Shielded, Axial Leaded

## FEATURES

- Classification is grade 2, class B
- Inductance range is 0.10 µH to 1000 µH
- 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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

## ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:** ± 10 % on Q-meter

**Dielectric Strength:** 700 $V_{RMS}$ 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 $^1/_3$ W dissipation

## MECHANICAL SPECIFICATIONS

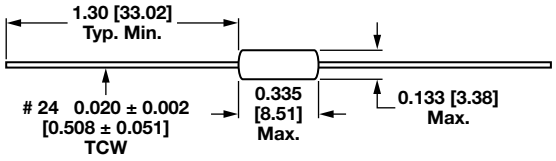
**Terminal Strength:** Meets 5 lb pull test

## DENSITY SPECIFICATIONS

**Weight:** 0.50 g maximum

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

## DIMENSIONS in inches [millimeters]




## STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | IND. (µH) | TOL. (%) | Q MIN. | TEST FREQUENCY (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) | INCREMENTAL CURRENT (mA) [1] | |
|---|---|---|---|---|---|---|---|---|---|
| IMS-2WWD-40 | 0.10 | ± 10 | 42 | 25 | > 400 | 0.112 | 1720 | > 1720 | PHENOLIC |
| IMS-2WWD-40 | 0.12 | ± 10 | 42 | 25 | > 400 | 0.126 | 1630 | > 1630 | |
| IMS-2WWD-40 | 0.15 | ± 10 | 42 | 25 | > 400 | 0.138 | 1550 | > 1550 | |
| IMS-2WWD-40 | 0.18 | ± 10 | 42 | 25 | 366 | 0.165 | 1420 | > 1420 | |
| IMS-2WWD-40 | 0.22 | ± 10 | 42 | 25 | 331 | 0.198 | 1330 | > 1330 | |
| IMS-2WWD-40 | 0.27 | ± 10 | 42 | 25 | 298 | 0.220 | 1230 | > 1230 | |
| IMS-2WWD-40 | 0.33 | ± 10 | 42 | 25 | 288 | 0.258 | 1140 | > 1140 | |
| IMS-2WWD-40 | 0.39 | ± 10 | 42 | 25 | 271 | 0.292 | 1060 | > 1060 | |
| IMS-2WWD-40 | 0.47 | ± 10 | 41 | 25 | 247 | 0.360 | 960 | > 960 | |
| IMS-2WWD-40 | 0.56 | ± 10 | 39 | 25 | 236 | 0.397 | 915 | > 915 | |
| IMS-2WWD-40 | 0.68 | ± 10 | 36 | 25 | 216 | 0.472 | 840 | > 840 | |
| IMS-2WWD-40 | 0.82 | ± 10 | 35 | 25 | 200 | 0.638 | 720 | > 720 | |
| IMS-2WWD-40 | 1.0 | ± 10 | 42 | 25 | 136 | 0.208 | 1260 | > 1260 | IRON |
| IMS-2WWD-40 | 1.2 | ± 10 | 38 | 7.9 | 120 | 0.225 | 1210 | > 1210 | |
| IMS-2WWD-40 | 1.5 | ± 10 | 38 | 7.9 | 111 | 0.265 | 1120 | > 1120 | |
| IMS-2WWD-40 | 1.8 | ± 10 | 38 | 7.9 | 103 | 0.285 | 1080 | > 1080 | |
| IMS-2WWD-40 | 2.2 | ± 10 | 36 | 7.9 | 94 | 0.330 | 1000 | > 1000 | |
| IMS-2WWD-40 | 2.7 | ± 10 | 38 | 7.9 | 85 | 0.381 | 935 | > 935 | |
| IMS-2WWD-40 | 3.3 | ± 10 | 38 | 7.9 | 78 | 0.432 | 875 | > 875 | |
| IMS-2WWD-40 | 3.9 | ± 10 | 40 | 7.9 | 73 | 0.576 | 755 | > 755 | |
| IMS-2WWD-40 | 4.7 | ± 10 | 42 | 7.9 | 66 | 0.787 | 650 | > 650 | |
| IMS-2WWD-40 | 5.6 | ± 10 | 42 | 7.9 | 62 | 1.04 | 565 | > 565 | |
| IMS-2WWD-40 | 6.8 | ± 10 | 45 | 7.9 | 54 | 1.40 | 485 | > 485 | |
| IMS-2WWD-40 | 8.2 | ± 10 | 47 | 7.9 | 50 | 1.68 | 440 | > 440 | |
| IMS-2WWD-40 | 10 | ± 10 | 51 | 7.9 | 44 | 2.58 | 355 | > 355 | |
| IMS-2WWD-40 | 12 | ± 10 | 51 | 2.5 | 39 | 3.65 | 300 | > 300 | |

**Note**

[1] Incremental current: The DC current required to cause a 5 % reduction in the nominal inductance value

## STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | IND. (µH) | TOL. (%) | Q MIN. | TEST FREQUENCY (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) | INCREMENTAL CURRENT (mA) [1] | |
|---|---|---|---|---|---|---|---|---|---|
| IMS-2WWD-40 | 15 | ± 10 | 45 | 2.5 | 44 | 0.862 | 620 | 200 | FERRITE |
| IMS-2WWD-40 | 18 | ± 10 | 43 | 2.5 | 40 | 1.02 | 570 | 175 | |
| IMS-2WWD-40 | 22 | ± 10 | 42 | 2.5 | 36 | 1.12 | 545 | 160 | |
| IMS-2WWD-40 | 27 | ± 10 | 37 | 2.5 | 33 | 1.28 | 510 | 155 | |
| IMS-2WWD-40 | 33 | ± 10 | 46 | 2.5 | 30 | 1.70 | 440 | 150 | |
| IMS-2WWD-40 | 39 | ± 10 | 38 | 2.5 | 26 | 1.99 | 405 | 145 | |
| IMS-2WWD-40 | 47 | ± 10 | 42 | 2.5 | 23 | 2.41 | 370 | 140 | |
| IMS-2WWD-40 | 56 | ± 10 | 41 | 2.5 | 22 | 2.85 | 340 | 130 | |
| IMS-2WWD-40 | 68 | ± 10 | 46 | 2.5 | 18 | 3.21 | 320 | 120 | |
| IMS-2WWD-40 | 82 | ± 10 | 46 | 2.5 | 17 | 3.57 | 305 | 115 | |
| IMS-2WWD-40 | 100 | ± 10 | 43 | 2.5 | 15 | 4.10 | 280 | 100 | |
| IMS-2WWD-40 | 120 | ± 10 | 50 | 0.79 | 13 | 5.97 | 235 | 80 | |
| IMS-2WWD-40 | 150 | ± 10 | 49 | 0.79 | 12 | 7.05 | 215 | 68 | |
| IMS-2WWD-40 | 180 | ± 10 | 56 | 0.79 | 11 | 8.12 | 200 | 64 | |
| IMS-2WWD-40 | 220 | ± 10 | 53 | 0.79 | 10 | 14.8 | 150 | 60 | |
| IMS-2WWD-40 | 270 | ± 10 | 57 | 0.79 | 9 | 16.8 | 140 | 58 | |
| IMS-2WWD-40 | 330 | ± 10 | 57 | 0.79 | 8.5 | 18.6 | 130 | 56 | |
| IMS-2WWD-40 | 390 | ± 10 | 57 | 0.79 | 8 | 21.1 | 120 | 54 | |
| IMS-2WWD-40 | 470 | ± 10 | 50 | 0.79 | 7 | 32.2 | 100 | 52 | |
| IMS-2WWD-40 | 560 | ± 10 | 50 | 0.79 | 6 | 36.4 | 95 | 50 | |
| IMS-2WWD-40 | 680 | ± 10 | 56 | 0.79 | 5.5 | 41.1 | 90 | 48 | |
| IMS-2WWD-40 | 820 | ± 10 | 49 | 0.79 | 5 | 45.0 | 85 | 47 | |
| IMS-2WWD-40 | 1000 | ± 10 | 49 | 0.79 | 4.5 | 52.0 | 80 | 45 | |

**Note**
[1] Incremental current: The DC current required to cause a 5 % reduction in the nominal inductance value

## MARKING

- Color coded

## ORDERING INFORMATION

| IMS-2WWD-40 | 0.10 µH | 10 % | ER | e2 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

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

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