



Inductors, Commercial, Molded, Axial Leaded



ELECTRICAL SPECIFICATIONS

Inductance Tolerance: $\pm 1\%$, $\pm 3\%$, $\pm 5\%$, $\pm 10\%$, $\pm 20\%$, other tolerances available on request

Insulation Resistance: 1000 M Ω minimum per MIL-STD-202, method 302, test condition B

Dielectric Strength: Per MIL-STD-202, method 301: 1000 V_{AC} for IM-2, IM-4, IM-6, IM-8, IM-9 and IM-10
200 V_{AC} for IM-1

TEST EQUIPMENT (1)

- H/P 4342A Q-meter
- Measurements corporation megacycle meter, model 59
- Wheatstone bridge

Note

(1) Test procedure per MIL-PRF-15305

MATERIAL SPECIFICATIONS

Encapsulant: Epoxy

Standard Terminals: IM-1 and IM-2: 24 AWG; IM-4, IM-6 and IM-9: 22 AWG; IM-8: 21 AWG; IM-10: 20 AWG, tinned copper

| ENVIRONMENTAL PERFORMANCE | | |
|------------------------------|------------|-------------------------|
| TEST | CONDITIONS | SPECIFICATIONS |
| Barometric Pressure | C | MIL-STD-202, method 105 |
| Thermal Shock | A-1 | MIL-STD-202, method 107 |
| Flammability | - | MIL-STD-202, method 111 |
| Overload | - | MIL-PRF-15305 |
| Low Temperature Storage | - | MIL-PRF-15305 |
| Resistance to Soldering Heat | A | MIL-STD-202, method 210 |
| Resistance to Solvents | - | MIL-STD-202, method 215 |

FEATURES

- Wide inductance range in small package
- Flame retardant coating
- Precision performance, excellent reliability, sturdy construction
- Epoxy molded construction provides superior moisture protection
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT

MECHANICAL SPECIFICATIONS

Terminal Strength: Per MIL-STD-202, method 211, test condition A: For IM-1, 3 lb pull; for IM-2, IM-4, IM-6, IM-8, IM-9 and IM-10, 5 lb pull and twist

Weight: IM-1 = 0.25 g maximum, IM-2 = 0.30 g maximum, IM-4 = 0.65 g maximum, IM-6 = 0.95 g maximum, IM-8 = 1.5 g maximum, IM-9 = 2.0 g maximum, IM-10 = 2.5 g maximum

INDUCTANCE RANGE AND MILITARY STANDARD

| MODEL | INDUCTANCE RANGE (μ H) | |
|-------|-----------------------------|--------|
| | MIN. | MAX. |
| IM-1 | 0.10 | 100 |
| IM-2 | 0.027 | 0.082 |
| | 0.10 | 1 |
| | 1.2 | 27 |
| | 33 | 1000 |
| IM-4 | 0.15 | 4.7 |
| | 5.6 | 33 |
| | 36 | 240 |
| | 270 | 1800 |
| IM-6 | 0.10 | 2.7 |
| | 3.3 | 27 |
| | 33 | 220 |
| | 270 | 1000 |
| IM-8 | 1100 | 3600 |
| IM-9 | 68 | 150 |
| IM-10 | 3900 | 10 000 |

DIMENSIONS in inches [millimeters]



| MODEL | | A (DIA.) | B | C (TYP.) | D (DIA.) |
|-------|------|--------------|---------------|--------------|----------------|
| IM-1 | Max. | 0.086 [2.18] | 0.210 [5.33] | 1.62 [41.15] | 0.0215 [0.546] |
| | Min. | 0.070 [1.78] | 0.190 [4.83] | 1.38 [35.05] | 0.0185 [0.470] |
| IM-2 | Max. | 0.105 [2.67] | 0.260 [6.60] | 1.63 [41.40] | 0.0215 [0.546] |
| | Min. | 0.085 [2.16] | 0.240 [6.10] | 1.25 [31.75] | 0.0185 [0.470] |
| IM-4 | Max. | 0.165 [4.19] | 0.385 [9.78] | 1.63 [41.40] | 0.027 [0.686] |
| | Min. | 0.145 [3.68] | 0.365 [9.27] | 1.25 [31.75] | 0.023 [0.584] |
| IM-6 | Max. | 0.200 [5.08] | 0.450 [11.43] | 1.63 [41.40] | 0.027 [0.686] |
| | Min. | 0.180 [4.57] | 0.430 [10.92] | 1.25 [31.75] | 0.023 [0.584] |
| IM-8 | Max. | 0.225 [5.72] | 0.570 [14.48] | 1.63 [41.40] | 0.030 [0.762] |
| | Min. | 0.205 [5.21] | 0.550 [13.97] | 1.25 [31.75] | 0.026 [0.660] |
| IM-9 | Max. | 0.260 [6.60] | 0.570 [14.48] | 1.63 [41.40] | 0.027 [0.686] |
| | Min. | 0.240 [6.10] | 0.550 [13.97] | 1.25 [31.75] | 0.023 [0.584] |
| IM-10 | Max. | 0.250 [6.35] | 0.750 [19.05] | 1.63 [41.40] | 0.034 [0.864] |
| | Min. | 0.230 [5.84] | 0.730 [18.54] | 1.25 [31.75] | 0.030 [0.762] |



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|-----------|----------|--------|------------------------------|-------------------------------|--------------|--------------------------------------|
| MODEL | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY L AND Q (MHz) | SRF MIN. (MHz) ⁽¹⁾ | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽²⁾ |
| IM-1 | 0.10 | ± 10 | 35 | 25.0 | 680.0 | 0.13 | 895 |
| IM-1 | 0.12 | ± 10 | 35 | 25.0 | 650.0 | 0.15 | 835 |
| IM-1 | 0.15 | ± 10 | 35 | 25.0 | 560.0 | 0.18 | 760 |
| IM-1 | 0.18 | ± 10 | 35 | 25.0 | 540.0 | 0.21 | 705 |
| IM-1 | 0.22 | ± 10 | 30 | 25.0 | 500.0 | 0.25 | 645 |
| IM-1 | 0.27 | ± 10 | 30 | 25.0 | 440.0 | 0.38 | 525 |
| IM-1 | 0.33 | ± 10 | 25 | 25.0 | 410.0 | 0.49 | 460 |
| IM-1 | 0.39 | ± 10 | 25 | 25.0 | 380.0 | 0.59 | 420 |
| IM-1 | 0.47 | ± 10 | 25 | 25.0 | 340.0 | 0.62 | 410 |
| IM-1 | 0.56 | ± 10 | 40 | 25.0 | 250.0 | 0.18 | 510 |
| IM-1 | 0.68 | ± 10 | 40 | 25.0 | 215.0 | 0.20 | 485 |
| IM-1 | 0.82 | ± 10 | 40 | 25.0 | 200.0 | 0.22 | 465 |
| IM-1 | 1.0 | ± 10 | 40 | 25.0 | 190.0 | 0.25 | 435 |
| IM-1 | 1.2 | ± 10 | 35 | 7.9 | 170.0 | 0.28 | 410 |
| IM-1 | 1.5 | ± 10 | 40 | 7.9 | 150.0 | 0.49 | 310 |
| IM-1 | 1.8 | ± 10 | 40 | 7.9 | 135.0 | 0.56 | 290 |
| IM-1 | 2.2 | ± 10 | 45 | 7.9 | 130.0 | 0.72 | 257 |
| IM-1 | 2.7 | ± 10 | 45 | 7.9 | 110.0 | 0.85 | 236 |
| IM-1 | 3.3 | ± 10 | 45 | 7.9 | 100.0 | 1.2 | 198 |
| IM-1 | 3.9 | ± 10 | 50 | 7.9 | 95.0 | 1.5 | 178 |
| IM-1 | 4.7 | ± 10 | 55 | 7.9 | 88.0 | 2.1 | 150 |
| IM-1 | 5.6 | ± 10 | 55 | 7.9 | 78.0 | 2.8 | 130 |
| IM-1 | 6.8 | ± 10 | 55 | 7.9 | 69.0 | 3.2 | 122 |
| IM-1 | 8.2 | ± 10 | 45 | 7.9 | 52.0 | 4.4 | 104 |
| IM-1 | 10.0 | ± 10 | 45 | 7.9 | 47.0 | 5.2 | 95 |
| IM-1 | 12.0 | ± 10 | 40 | 2.5 | 31.0 | 3.0 | 126 |
| IM-1 | 15.0 | ± 10 | 40 | 2.5 | 26.0 | 3.4 | 118 |
| IM-1 | 18.0 | ± 10 | 40 | 2.5 | 23.0 | 3.8 | 112 |
| IM-1 | 22.0 | ± 10 | 45 | 2.5 | 20.0 | 4.3 | 105 |
| IM-1 | 27.0 | ± 10 | 45 | 2.5 | 17.0 | 4.7 | 100 |
| IM-1 | 33.0 | ± 10 | 45 | 2.5 | 15.0 | 5.2 | 95 |
| IM-1 | 39.0 | ± 10 | 45 | 2.5 | 13.5 | 6.8 | 83.5 |
| IM-1 | 47.0 | ± 10 | 45 | 2.5 | 12.5 | 8.2 | 76 |
| IM-1 | 56.0 | ± 10 | 45 | 2.5 | 11.5 | 10.0 | 69 |
| IM-1 | 68.0 | ± 10 | 45 | 2.5 | 10.5 | 11.5 | 64 |
| IM-1 | 82.0 | ± 10 | 45 | 2.5 | 10.0 | 16.0 | 54.5 |
| IM-1 | 100.0 | ± 10 | 45 | 2.5 | 9.5 | 17.5 | 52 |
| IM-2 | 0.027 | ± 20 | 40 | 25.0 | 875.0 | 0.03 | 2200 |
| IM-2 | 0.033 | ± 10 | 40 | 25.0 | 850.0 | 0.035 | 2000 |
| IM-2 | 0.039 | ± 10 | 40 | 25.0 | 825.0 | 0.04 | 1900 |
| IM-2 | 0.047 | ± 10 | 40 | 25.0 | 800.0 | 0.045 | 1800 |
| IM-2 | 0.056 | ± 10 | 40 | 25.0 | 775.0 | 0.05 | 1700 |
| IM-2 | 0.068 | ± 10 | 40 | 25.0 | 750.0 | 0.06 | 1500 |
| IM-2 | 0.082 | ± 10 | 40 | 25.0 | 725.0 | 0.07 | 1400 |
| IM-2 | 0.10 | ± 10 | 40 | 25.0 | 680.0 | 0.08 | 1350 |
| IM-2 | 0.12 | ± 10 | 40 | 25.0 | 640.0 | 0.09 | 1270 |
| IM-2 | 0.15 | ± 10 | 38 | 25.0 | 600.0 | 0.10 | 1200 |
| IM-2 | 0.18 | ± 10 | 35 | 25.0 | 550.0 | 0.12 | 1105 |
| IM-2 | 0.22 | ± 10 | 33 | 25.0 | 510.0 | 0.14 | 1025 |
| IM-2 | 0.27 | ± 10 | 33 | 25.0 | 430.0 | 0.16 | 960 |
| IM-2 | 0.33 | ± 10 | 30 | 25.0 | 410.0 | 0.22 | 815 |
| IM-2 | 0.39 | ± 10 | 30 | 25.0 | 365.0 | 0.30 | 700 |
| IM-2 | 0.47 | ± 10 | 30 | 25.0 | 330.0 | 0.35 | 650 |
| IM-2 | 0.56 | ± 10 | 30 | 25.0 | 300.0 | 0.50 | 545 |
| IM-2 | 0.68 | ± 10 | 28 | 25.0 | 275.0 | 0.60 | 495 |
| IM-2 | 0.82 | ± 10 | 28 | 25.0 | 250.0 | 0.85 | 415 |
| IM-2 | 1.0 | ± 10 | 25 | 25.0 | 230.0 | 1.0 | 385 |

PHENOLIC CORE

IRON CORE

PHENOLIC CORE

Notes

⁽¹⁾ Measured with full length lead

⁽²⁾ Rated DC current based on maximum temperature rise as shown in table



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|-----------|----------|--------|------------------------------|-------------------------------|--------------|--------------------------------------|
| MODEL | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY L AND Q (MHz) | SRF MIN. (MHz) ⁽¹⁾ | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽²⁾ |
| IM-2 | 1.2 | ± 10 | 25 | 7.9 | 150.0 | 0.18 | 590 |
| IM-2 | 1.5 | ± 10 | 28 | 7.9 | 140.0 | 0.22 | 535 |
| IM-2 | 1.8 | ± 10 | 30 | 7.9 | 125.0 | 0.30 | 455 |
| IM-2 | 2.2 | ± 10 | 30 | 7.9 | 115.0 | 0.40 | 395 |
| IM-2 | 2.7 | ± 10 | 37 | 7.9 | 100.0 | 0.55 | 355 |
| IM-2 | 3.3 | ± 10 | 45 | 7.9 | 90.0 | 0.85 | 270 |
| IM-2 | 3.9 | ± 10 | 45 | 7.9 | 80.0 | 1.0 | 250 |
| IM-2 | 4.7 | ± 10 | 45 | 7.9 | 75.0 | 1.2 | 230 |
| IM-2 | 5.6 | ± 10 | 50 | 7.9 | 65.0 | 1.8 | 185 |
| IM-2 | 6.8 | ± 10 | 50 | 7.9 | 60.0 | 2.0 | 175 |
| IM-2 | 8.2 | ± 10 | 55 | 7.9 | 55.0 | 2.7 | 155 |
| IM-2 | 10.0 | ± 10 | 55 | 7.9 | 50.0 | 3.7 | 130 |
| IM-2 | 12.0 | ± 10 | 45 | 2.5 | 40.0 | 2.7 | 155 |
| IM-2 | 15.0 | ± 10 | 40 | 2.5 | 35.0 | 2.8 | 150 |
| IM-2 | 18.0 | ± 10 | 50 | 2.5 | 30.0 | 3.1 | 145 |
| IM-2 | 22.0 | ± 10 | 50 | 2.5 | 25.0 | 3.3 | 140 |
| IM-2 | 27.0 | ± 10 | 50 | 2.5 | 20.0 | 3.5 | 135 |
| IM-2 | 33.0 | ± 10 | 45 | 2.5 | 24.0 | 3.4 | 130 |
| IM-2 | 39.0 | ± 10 | 45 | 2.5 | 22.0 | 3.6 | 125 |
| IM-2 | 47.0 | ± 10 | 45 | 2.5 | 20.0 | 4.5 | 110 |
| IM-2 | 56.0 | ± 10 | 45 | 2.5 | 18.0 | 5.7 | 100 |
| IM-2 | 68.0 | ± 10 | 50 | 2.5 | 15.0 | 6.7 | 92 |
| IM-2 | 82.0 | ± 10 | 50 | 2.5 | 14.0 | 7.3 | 88 |
| IM-2 | 100.0 | ± 10 | 50 | 2.5 | 13.0 | 8 | 84 |
| IM-2 | 120.0 | ± 10 | 30 | 0.79 | 12.0 | 13 | 66 |
| IM-2 | 150.0 | ± 10 | 30 | 0.79 | 11.0 | 15 | 61 |
| IM-2 | 180.0 | ± 10 | 30 | 0.79 | 10.0 | 17 | 57 |
| IM-2 | 220.0 | ± 10 | 30 | 0.79 | 9.0 | 21 | 52 |
| IM-2 | 270.0 | ± 10 | 30 | 0.79 | 8.0 | 25 | 47 |
| IM-2 | 330.0 | ± 10 | 30 | 0.79 | 7.0 | 28 | 45 |
| IM-2 | 390.0 | ± 10 | 30 | 0.79 | 6.5 | 35 | 40 |
| IM-2 | 470.0 | ± 10 | 30 | 0.79 | 6.0 | 42 | 36 |
| IM-2 | 560.0 | ± 10 | 30 | 0.79 | 5.0 | 46 | 35 |
| IM-2 | 680.0 | ± 10 | 30 | 0.79 | 4.0 | 60 | 30 |
| IM-2 | 820.0 | ± 10 | 30 | 0.79 | 3.8 | 65 | 29 |
| IM-2 | 1000.0 | ± 10 | 30 | 0.79 | 3.4 | 72 | 28 |
| IM-4 | 0.15 | ± 20 | 50 | 25 | 525.0 | 0.03 | 2450 |
| IM-4 | 0.22 | ± 20 | 50 | 25 | 450.0 | 0.055 | 1810 |
| IM-4 | 0.33 | ± 20 | 45 | 25 | 360.0 | 0.09 | 1400 |
| IM-4 | 0.47 | ± 20 | 45 | 25 | 310.0 | 0.12 | 1225 |
| IM-4 | 0.56 | ± 10 | 50 | 25 | 280.0 | 0.135 | 1150 |
| IM-4 | 0.68 | ± 10 | 50 | 25 | 250.0 | 0.15 | 1100 |
| IM-4 | 0.82 | ± 10 | 50 | 25 | 220.0 | 0.22 | 900 |
| IM-4 | 1.0 | ± 10 | 50 | 25 | 200.0 | 0.29 | 785 |
| IM-4 | 1.2 | ± 10 | 33 | 7.9 | 180.0 | 0.42 | 650 |
| IM-4 | 1.5 | ± 10 | 33 | 7.9 | 160.0 | 0.50 | 600 |
| IM-4 | 1.8 | ± 10 | 33 | 7.9 | 150.0 | 0.65 | 525 |
| IM-4 | 2.2 | ± 10 | 33 | 7.9 | 135.0 | 0.95 | 435 |
| IM-4 | 2.7 | ± 10 | 33 | 7.9 | 120.0 | 1.20 | 385 |
| IM-4 | 3.3 | ± 10 | 33 | 7.9 | 110.0 | 2.0 | 300 |
| IM-4 | 3.9 | ± 10 | 33 | 7.9 | 100.0 | 2.30 | 280 |
| IM-4 | 4.7 | ± 10 | 33 | 7.9 | 90.0 | 2.60 | 260 |
| IM-4 | 5.6 | ± 10 | 45 | 7.9 | 60.0 | 0.32 | 495 |
| IM-4 | 6.8 | ± 10 | 50 | 7.9 | 55.0 | 0.50 | 395 |
| IM-4 | 8.2 | ± 10 | 50 | 7.9 | 50.0 | 0.60 | 360 |
| IM-4 | 10.0 | ± 10 | 55 | 7.9 | 45.0 | 0.90 | 290 |
| IM-4 | 12.0 | ± 10 | 65 | 2.5 | 42.0 | 1.10 | 265 |
| IM-4 | 15.0 | ± 10 | 65 | 2.5 | 40.0 | 1.40 | 240 |

Notes

- (1) Measured with full length lead
- (2) Rated DC current based on maximum temperature rise as shown in table



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|-----------|----------|--------|------------------------------|-------------------------------|--------------|--------------------------------------|
| MODEL | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY L AND Q (MHz) | SRF MIN. (MHz) ⁽¹⁾ | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽²⁾ |
| IM-4 | 18.0 | ± 10 | 75 | 2.5 | 34.0 | 2.25 | 185 |
| IM-4 | 22.0 | ± 10 | 75 | 2.5 | 30.0 | 2.50 | 175 |
| IM-4 | 27.0 | ± 10 | 60 | 2.5 | 25.0 | 2.60 | 170 |
| IM-4 | 33.0 | ± 10 | 65 | 2.5 | 19.0 | 3.0 | 165 |
| IM-4 | 36.0 | ± 5 | 60 | 2.5 | 15.5 | 2.50 | 180 |
| IM-4 | 39.0 | ± 5 | 60 | 2.5 | 14.5 | 2.60 | 176 |
| IM-4 | 43.0 | ± 5 | 60 | 2.5 | 13.7 | 2.70 | 172 |
| IM-4 | 47.0 | ± 5 | 55 | 2.5 | 13.0 | 2.75 | 170 |
| IM-4 | 51.0 | ± 5 | 55 | 2.5 | 12.7 | 2.85 | 167 |
| IM-4 | 56.0 | ± 5 | 55 | 2.5 | 12.0 | 3.00 | 164 |
| IM-4 | 62.0 | ± 5 | 55 | 2.5 | 11.5 | 3.15 | 160 |
| IM-4 | 68.0 | ± 5 | 55 | 2.5 | 11.0 | 3.30 | 156 |
| IM-4 | 75.0 | ± 5 | 55 | 2.5 | 10.5 | 3.70 | 147 |
| IM-4 | 82.0 | ± 5 | 50 | 2.5 | 10.3 | 3.90 | 143 |
| IM-4 | 91.0 | ± 5 | 50 | 2.5 | 10.0 | 4.30 | 136 |
| IM-4 | 100.0 | ± 5 | 50 | 2.5 | 9.5 | 4.50 | 133 |
| IM-4 | 110.0 | ± 5 | 60 | 0.79 | 8.9 | 4.90 | 128 |
| IM-4 | 120.0 | ± 5 | 65 | 0.79 | 8.7 | 5.20 | 124 |
| IM-4 | 130.0 | ± 5 | 65 | 0.79 | 8.5 | 5.45 | 121 |
| IM-4 | 150.0 | ± 5 | 65 | 0.79 | 8.0 | 6.05 | 114 |
| IM-4 | 160.0 | ± 5 | 65 | 0.79 | 7.5 | 6.40 | 111 |
| IM-4 | 180.0 | ± 5 | 65 | 0.79 | 7.0 | 6.75 | 108 |
| IM-4 | 200.0 | ± 5 | 65 | 0.79 | 6.5 | 7.10 | 106 |
| IM-4 | 220.0 | ± 5 | 65 | 0.79 | 6.2 | 7.45 | 103 |
| IM-4 | 240.0 | ± 5 | 65 | 0.79 | 5.9 | 7.80 | 101 |
| IM-4 | 270.0 | ± 5 | 65 | 0.79 | 5.7 | 11.0 | 129 |
| IM-4 | 300.0 | ± 5 | 65 | 0.79 | 5.4 | 11.5 | 125 |
| IM-4 | 330.0 | ± 5 | 65 | 0.79 | 5.1 | 12.0 | 123 |
| IM-4 | 360.0 | ± 5 | 65 | 0.79 | 4.8 | 15.5 | 108 |
| IM-4 | 390.0 | ± 5 | 65 | 0.79 | 4.5 | 16.3 | 105 |
| IM-4 | 430.0 | ± 5 | 65 | 0.79 | 4.2 | 17.1 | 102 |
| IM-4 | 470.0 | ± 5 | 65 | 0.79 | 3.9 | 17.9 | 100 |
| IM-4 | 510.0 | ± 5 | 65 | 0.79 | 3.7 | 18.8 | 98 |
| IM-4 | 560.0 | ± 5 | 65 | 0.79 | 3.5 | 24.7 | 85 |
| IM-4 | 620.0 | ± 5 | 65 | 0.79 | 3.3 | 25.9 | 83 |
| IM-4 | 680.0 | ± 5 | 55 | 0.79 | 3.1 | 27.2 | 81 |
| IM-4 | 750.0 | ± 5 | 55 | 0.79 | 2.9 | 28.6 | 79 |
| IM-4 | 820.0 | ± 5 | 55 | 0.79 | 2.7 | 30.0 | 77 |
| IM-4 | 910.0 | ± 5 | 55 | 0.79 | 2.5 | 31.5 | 76 |
| IM-4 | 1000.0 | ± 5 | 55 | 0.79 | 2.3 | 33.1 | 74 |
| IM-4 | 1100.0 | ± 5 | 30 | 0.25 | 2.1 | 43.5 | 64 |
| IM-4 | 1200.0 | ± 5 | 30 | 0.25 | 2.0 | 45.7 | 63 |
| IM-4 | 1300.0 | ± 5 | 30 | 0.25 | 1.9 | 49.0 | 61 |
| IM-4 | 1500.0 | ± 5 | 30 | 0.25 | 1.8 | 52.5 | 59 |
| IM-4 | 1600.0 | ± 5 | 30 | 0.25 | 1.7 | 54.0 | 58 |
| IM-4 | 1800.0 | ± 5 | 30 | 0.25 | 1.6 | 56.7 | 56 |
| IM-6 | 0.10 | ± 20 | 55 | 25.0 | 510.0 | 0.020 | 3600 |
| IM-6 | 0.12 | ± 20 | 55 | 25.0 | 510.0 | 0.025 | 3300 |
| IM-6 | 0.15 | ± 20 | 55 | 25.0 | 510.0 | 0.030 | 3000 |
| IM-6 | 0.18 | ± 20 | 55 | 25.0 | 450.0 | 0.030 | 2900 |
| IM-6 | 0.22 | ± 20 | 50 | 25.0 | 415.0 | 0.035 | 2800 |
| IM-6 | 0.27 | ± 20 | 50 | 25.0 | 380.0 | 0.050 | 2400 |
| IM-6 | 0.33 | ± 20 | 50 | 25.0 | 350.0 | 0.065 | 2000 |
| IM-6 | 0.39 | ± 20 | 50 | 25.0 | 320.0 | 0.080 | 1800 |
| IM-6 | 0.47 | ± 20 | 50 | 25.0 | 300.0 | 0.085 | 1700 |
| IM-6 | 0.56 | ± 10 | 50 | 25.0 | 270.0 | 0.125 | 1450 |

IRON CORE

PHENOLIC CORE

Notes

- ⁽¹⁾ Measured with full length lead
- ⁽²⁾ Rated DC current based on maximum temperature rise as shown in table



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | | |
|------------------------------------|-----------|----------|--------|------------------------------|-------------------------------|--------------|--------------------------------------|---------------|
| MODEL | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY L AND Q (MHz) | SRF MIN. (MHz) ⁽¹⁾ | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽²⁾ | |
| IM-6 | 0.68 | ± 10 | 45 | 25.0 | 250.0 | 0.150 | 1300 | PHENOLIC CORE |
| IM-6 | 0.82 | ± 10 | 40 | 25.0 | 210.0 | 0.205 | 1100 | |
| IM-6 | 1.0 | ± 10 | 40 | 25.0 | 200.0 | 0.290 | 930 | |
| IM-6 | 1.2 | ± 10 | 30 | 7.9 | 180.0 | 0.400 | 785 | |
| IM-6 | 1.5 | ± 10 | 30 | 7.9 | 170.0 | 0.485 | 700 | |
| IM-6 | 1.8 | ± 10 | 30 | 7.9 | 150.0 | 0.740 | 580 | |
| IM-6 | 2.2 | ± 10 | 30 | 7.9 | 140.0 | 0.970 | 505 | |
| IM-6 | 2.7 | ± 10 | 30 | 7.9 | 120.0 | 1.20 | 460 | |
| IM-6 | 3.3 | ± 10 | 30 | 7.9 | 70.0 | 0.140 | 990 | IRON CORE |
| IM-6 | 3.9 | ± 10 | 30 | 7.9 | 65.0 | 0.155 | 870 | |
| IM-6 | 4.7 | ± 10 | 30 | 7.9 | 60.0 | 0.210 | 745 | |
| IM-6 | 5.6 | ± 10 | 30 | 7.9 | 50.0 | 0.280 | 645 | |
| IM-6 | 6.8 | ± 10 | 30 | 7.9 | 50.0 | 0.375 | 560 | |
| IM-6 | 8.2 | ± 10 | 30 | 7.9 | 48.0 | 0.440 | 540 | |
| IM-6 | 10.0 | ± 10 | 30 | 7.9 | 42.0 | 0.605 | 440 | |
| IM-6 | 12.0 | ± 10 | 50 | 2.5 | 36.0 | 1.05 | 370 | |
| IM-6 | 15.0 | ± 10 | 55 | 2.5 | 30.0 | 1.20 | 310 | |
| IM-6 | 18.0 | ± 10 | 60 | 2.5 | 30.0 | 1.95 | 255 | |
| IM-6 | 22.0 | ± 10 | 60 | 2.5 | 24.0 | 2.20 | 240 | |
| IM-6 | 27.0 | ± 10 | 65 | 2.5 | 22.0 | 2.75 | 205 | |
| IM-6 | 33.0 | ± 10 | 75 | 2.5 | 20.0 | 3.5 | 185 | |
| IM-6 | 39.0 | ± 10 | 75 | 2.5 | 18.0 | 3.8 | 176 | |
| IM-6 | 47.0 | ± 10 | 75 | 2.5 | 16.0 | 4.0 | 170 | |
| IM-6 | 56.0 | ± 10 | 75 | 2.5 | 15.0 | 4.4 | 164 | |
| IM-6 | 68.0 | ± 10 | 75 | 2.5 | 12.0 | 4.7 | 156 | |
| IM-6 | 82.0 | ± 10 | 75 | 2.5 | 10.0 | 5.3 | 143 | |
| IM-6 | 100.0 | ± 10 | 65 | 2.5 | 8.0 | 6.0 | 133 | |
| IM-6 | 120.0 | ± 10 | 65 | 0.79 | 6.0 | 5.0 | 124 | |
| IM-6 | 150.0 | ± 10 | 65 | 0.79 | 5.4 | 5.8 | 118 | |
| IM-6 | 180.0 | ± 10 | 65 | 0.79 | 5.0 | 6.6 | 114 | |
| IM-6 | 220.0 | ± 10 | 65 | 0.79 | 4.7 | 7.4 | 112 | |
| IM-6 | 270.0 | ± 5 | 65 | 0.79 | 5.6 | 8.2 | 110 | |
| IM-6 | 300.0 | ± 5 | 65 | 0.79 | 5.3 | 8.7 | 107 | |
| IM-6 | 330.0 | ± 5 | 65 | 0.79 | 5.0 | 9.1 | 105 | |
| IM-6 | 360.0 | ± 5 | 65 | 0.79 | 4.7 | 9.6 | 102 | |
| IM-6 | 390.0 | ± 5 | 65 | 0.79 | 4.5 | 10.0 | 100 | |
| IM-6 | 430.0 | ± 5 | 65 | 0.79 | 4.3 | 10.6 | 97 | |
| IM-6 | 470.0 | ± 5 | 65 | 0.79 | 4.0 | 11.1 | 95 | |
| IM-6 | 510.0 | ± 5 | 65 | 0.79 | 3.8 | 11.6 | 93 | |
| IM-6 | 560.0 | ± 5 | 65 | 0.79 | 3.6 | 12.3 | 91 | |
| IM-6 | 620.0 | ± 5 | 60 | 0.79 | 3.5 | 13.0 | 88 | |
| IM-6 | 680.0 | ± 5 | 60 | 0.79 | 3.4 | 13.7 | 85 | |
| IM-6 | 750.0 | ± 5 | 60 | 0.79 | 3.3 | 14.4 | 83 | |
| IM-6 | 820.0 | ± 5 | 60 | 0.79 | 3.1 | 15.1 | 81 | |
| IM-6 | 910.0 | ± 5 | 60 | 0.79 | 2.9 | 15.8 | 79 | |
| IM-6 | 1000.0 | ± 5 | 60 | 0.79 | 2.8 | 16.5 | 78 | |
| IM-8 | 1100.0 | ± 5 | 60 | 0.25 | 2.8 | 21 | 78 | IRON CORE |
| IM-8 | 1200.0 | ± 5 | 60 | 0.25 | 2.7 | 22 | 76 | |
| IM-8 | 1300.0 | ± 5 | 60 | 0.25 | 2.6 | 23 | 75 | |
| IM-8 | 1500.0 | ± 5 | 65 | 0.25 | 2.4 | 25 | 72 | |
| IM-8 | 1600.0 | ± 5 | 65 | 0.25 | 2.3 | 26 | 70 | |
| IM-8 | 1800.0 | ± 5 | 65 | 0.25 | 2.2 | 28 | 68 | |
| IM-8 | 2000.0 | ± 5 | 65 | 0.25 | 2.1 | 29 | 67 | |

Notes

- (1) Measured with full length lead
- (2) Rated DC current based on maximum temperature rise as shown in table



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|-----------|----------|--------|------------------------------|-------------------------------|--------------|--------------------------------------|
| MODEL | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY L AND Q (MHz) | SRF MIN. (MHz) ⁽¹⁾ | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽²⁾ |
| IM-8 | 2200.0 | ± 5 | 70 | 0.25 | 2.0 | 30 | 66 |
| IM-8 | 2400.0 | ± 5 | 70 | 0.25 | 1.9 | 31 | 64 |
| IM-8 | 2700.0 | ± 5 | 70 | 0.25 | 1.8 | 33 | 62 |
| IM-8 | 3000.0 | ± 5 | 70 | 0.25 | 1.7 | 35 | 61 |
| IM-8 | 3300.0 | ± 5 | 70 | 0.25 | 1.6 | 38 | 58 |
| IM-8 | 3600.0 | ± 5 | 70 | 0.25 | 1.5 | 40 | 57 |
| IM-9 | 68.0 | ± 10 | 70 | 2.5 | 13.0 | 3.3 | 168 |
| IM-9 | 82.0 | ± 10 | 65 | 2.5 | 11.7 | 3.5 | 162 |
| IM-9 | 100.0 | ± 10 | 65 | 2.5 | 10.7 | 3.8 | 155 |
| IM-9 | 120.0 | ± 10 | 75 | 0.79 | 9.3 | 4.7 | 142 |
| IM-9 | 150.0 | ± 10 | 75 | 0.79 | 8.3 | 5.3 | 132 |
| IM-10 | 3900.0 | ± 5 | 80 | 0.25 | 1.45 | 44 | 61 |
| IM-10 | 4300.0 | ± 5 | 80 | 0.25 | 1.40 | 46 | 59 |
| IM-10 | 4700.0 | ± 5 | 80 | 0.25 | 1.35 | 48 | 58 |
| IM-10 | 5000.0 | ± 5 | 80 | 0.25 | 1.30 | 50 | 57 |
| IM-10 | 5600.0 | ± 5 | 80 | 0.25 | 1.25 | 53 | 56 |
| IM-10 | 6200.0 | ± 5 | 80 | 0.25 | 1.20 | 56 | 54 |
| IM-10 | 6800.0 | ± 5 | 80 | 0.25 | 1.15 | 59 | 52 |
| IM-10 | 7500.0 | ± 5 | 80 | 0.25 | 1.10 | 62 | 51 |
| IM-10 | 8200.0 | ± 5 | 80 | 0.25 | 1.05 | 65 | 50 |
| IM-10 | 9100.0 | ± 5 | 80 | 0.25 | 1.00 | 68 | 49 |
| IM-10 | 10 000.0 | ± 5 | 80 | 0.25 | 0.95 | 72 | 47 |

Notes

⁽¹⁾ Measured with full length lead

⁽²⁾ Rated DC current based on maximum temperature rise as shown in table

| MAXIMUM TEMPERATURE RISE | | |
|--------------------------|--|-----------------------------|
| | | OPERATING TEMPERATURE RANGE |
| IM-1 | 0.10 μH to .47 μH = 35 °C at +90 °C ambient | -55 °C to +125 °C |
| | 0.56 μH to 1000 μH = 15 °C at +90 °C ambient | -55 °C to +105 °C |
| IM-2 | 0.027 μH to 1.0 μH = 35 °C at +90 °C ambient | -55 °C to +125 °C |
| | 1.2 μH to 27 μH = 15 °C at +90 °C ambient | -55 °C to +105 °C |
| | 33 μH to 1000 μH = 15 °C at +90 °C ambient | -55 °C to +105 °C |
| IM-4 | 0.15 μH to 4.7 μH = 35 °C at +90 °C ambient | -55 °C to +125 °C |
| | 5.6 μH to 33 μH = 15 °C at +90 °C ambient | -55 °C to +105 °C |
| | 36 μH to 240 μH = 15 °C at +90 °C ambient | -55 °C to +105 °C |
| | 270 μH to 1800 μH = 35 °C at +90 °C ambient | -55 °C to +125 °C |
| IM-6 | 0.1 μH to 2.7 μH = 35 °C at +90 °C ambient | -55 °C to +125 °C |
| | 3.3 μH to 1000 μH = 15 °C at +90 °C ambient | -55 °C to +105 °C |
| IM-8, IM-9, IM-10 | = 15 °C at +90 °C ambient | -55 °C to +105 °C |

| ORDERING INFORMATION | | | | |
|----------------------|------------------------|-----------------------------|-----------------|-----------------------------------|
| IM-2 MODEL | 10 μH INDUCTANCE VALUE | ± 10 % INDUCTANCE TOLERANCE | ER PACKAGE CODE | e2 JEDEC® LEAD (Pb)-FREE STANDARD |

| GLOBAL PART NUMBER | | | | | | | | | | | | | |
|---|---|---|---|---|--|---|---|---|---|---|---|---|---|
| <table border="1"> <tr> <td>I</td> <td>M</td> <td>0</td> <td>2</td> </tr> </table> <p>MODEL</p> | I | M | 0 | 2 | <table border="1"> <tr> <td>E</td> <td>R</td> </tr> </table> <p>PACKAGE CODE</p> | E | R | <table border="1"> <tr> <td>1</td> <td>0</td> <td>0</td> </tr> </table> <p>INDUCTANCE VALUE</p> | 1 | 0 | 0 | <table border="1"> <tr> <td>K</td> </tr> </table> <p>INDUCTANCE TOLERANCE</p> | K |
| I | M | 0 | 2 | | | | | | | | | | |
| E | R | | | | | | | | | | | | |
| 1 | 0 | 0 | | | | | | | | | | | |
| K | | | | | | | | | | | | | |



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