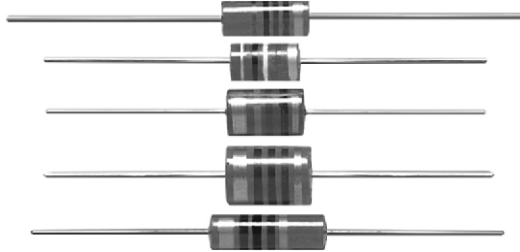


Inductors, Commercial, Molded, Axial Leaded



FEATURES

- High Q and SRF
- Non standard tolerances are also available in all types
- Maximum protection with minimum size as a result of full encapsulation in a thermo-setting mineral filled plastic jacket
- Assured uniformity of product, a result of stringent quality control and inspection procedures at every production stage
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT

| INDUCTANCE RANGE | | | | |
|------------------|------------------------------------|--------|---------------|--|
| MODEL | INDUCTANCE RANGE (μH) | | CORE MATERIAL | MAXIMUM OPERATING TEMPERATURE ($^{\circ}\text{C}$) |
| | MIN. | MAX. | | |
| IM-10-22 | 0.47 | 4.7 | Phenolic | + 125 |
| | 5.6 | 39 | Iron | + 105 |
| | 1100 | 3600 | Iron | + 105 |
| IM-10-28 | 1.2 | 18 | Phenolic | + 125 |
| | 22 | 120 | Iron | + 105 |
| IM-10-31 | 180 | 390 | Iron | + 105 |
| IM-10-37 | 470 | 1000 | Iron | + 105 |
| IM-10-46 | 1500 | 10 000 | Iron | + 105 |

| DIMENSIONS in inches [millimeters] | | | |
|------------------------------------|--|--|--|
| | | | |
| MODEL | A (DIA.) | B | C (TYP.) |
| IM-10-22 | 0.560 \pm 0.010 [14.22 \pm 0.254] | #22 AWG 0.025 \pm 0.002 [0.635 \pm 0.051] (0.47 μH thru 39 μH) #21 AWG 0.028 \pm 0.002 [0.711 \pm 0.051] (1100 μH thru 3600 μH) | 0.220 \pm 0.010 [5.59 \pm 0.254] |
| IM-10-28 | 0.940 \pm 0.010 [23.88 \pm 0.254] | #21 AWG 0.028 \pm 0.002 [0.711 \pm 0.051] | 0.280 \pm 0.010 [7.11 \pm 0.254] |
| IM-10-31 | 0.560 \pm 0.010 [14.22 \pm 0.254] | #21 AWG 0.028 \pm 0.002 [0.711 \pm 0.051] | 0.310 \pm 0.010 [7.87 \pm 0.254] |
| IM-10-37 | 0.625 \pm 0.010 [15.88 \pm 0.254] | #21 AWG 0.028 \pm 0.002 [0.711 \pm 0.051] | 0.375 \pm 0.010 [9.52 \pm 0.254] |
| IM-10-46 | 0.687 \pm 0.010 [17.45 \pm 0.254] | #21 AWG 0.028 \pm 0.002 [0.711 \pm 0.051] | 0.468 \pm 0.010 [11.89 \pm 0.254] |

| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | | |
|------------------------------------|------------------------|----------|-------------------|--------|------------------------|----------------|-----------------------|-----------------------|
| MODEL | IND. (μH) | TOL. (%) | PREVIOUS PART NO. | Q MIN. | TEST FREQUENCY Q (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) |
| IM-10-22 | 0.47 | \pm 10 | 4412-1K | 65 | 25 | 300 | 0.06 | 1970 |
| IM-10-22 | 0.56 | \pm 10 | 4412-2K | 65 | 25 | 270 | 0.07 | 1850 |
| IM-10-22 | 0.68 | \pm 10 | 4412-3K | 65 | 25 | 240 | 0.08 | 1700 |
| IM-10-22 | 0.82 | \pm 10 | 4412-4K | 65 | 25 | 220 | 0.11 | 1450 |
| IM-10-22 | 1.0 | \pm 10 | 4412-5K | 65 | 25 | 200 | 0.14 | 1290 |
| IM-10-22 | 1.2 | \pm 10 | 4412-6K | 40 | 7.9 | 180 | 0.19 | 1120 |
| IM-10-22 | 1.5 | \pm 10 | 4412-7K | 40 | 7.9 | 160 | 0.28 | 925 |
| IM-10-22 | 1.8 | \pm 10 | 4412-8K | 40 | 7.9 | 150 | 0.37 | 790 |
| IM-10-22 | 2.2 | \pm 10 | 4412-9K | 40 | 7.9 | 135 | 0.50 | 680 |
| IM-10-22 | 2.7 | \pm 10 | 4412-10K | 40 | 7.9 | 120 | 0.65 | 600 |
| IM-10-22 | 3.3 | \pm 10 | 4412-11K | 40 | 7.9 | 105 | 1.00 | 480 |
| IM-10-22 | 3.9 | \pm 10 | 4412-12K | 40 | 7.9 | 100 | 1.20 | 440 |
| IM-10-22 | 4.7 | \pm 10 | 4412-13K | 40 | 7.9 | 90 | 1.80 | 360 |

PHENOLIC CORE

IM-10-22, IM-10-28, IM-10-31, IM-10-37, IM-10-46



Vishay Dale

Inductors, Commercial, Molded, Axial Leaded

| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | | | |
|------------------------------------|-----------|----------|-------------------|--------|------------------------|----------------|--------------|-----------------------|--|
| MODEL | IND. (μH) | TOL. (%) | PREVIOUS PART NO. | Q MIN. | TEST FREQUENCY Q (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) | |
| IM-10-22 | 5.6 | ± 10 | 4422-1K | 35 | 7.9 | 55 | 0.13 | 885 | |
| IM-10-22 | 6.8 | ± 10 | 4422-2K | 35 | 7.9 | 50 | 0.20 | 710 | |
| IM-10-22 | 8.2 | ± 10 | 4422-3K | 35 | 7.9 | 44 | 0.22 | 680 | |
| IM-10-22 | 10 | ± 10 | 4422-4K | 35 | 7.9 | 42 | 0.26 | 625 | |
| IM-10-22 | 12 | ± 10 | 4422-5K | 45 | 2.5 | 34 | 0.45 | 465 | |
| IM-10-22 | 15 | ± 10 | 4422-6K | 45 | 2.5 | 32 | 0.52 | 442 | |
| IM-10-22 | 18 | ± 10 | 4422-7K | 50 | 2.5 | 28 | 0.70 | 380 | |
| IM-10-22 | 22 | ± 10 | 4422-8K | 60 | 2.5 | 24 | 1.00 | 326 | |
| IM-10-22 | 27 | ± 10 | 4422-9K | 60 | 2.5 | 22 | 1.30 | 275 | |
| IM-10-22 | 33 | ± 10 | 4422-10K | 60 | 2.5 | 20 | 1.50 | 258 | |
| IM-10-22 | 39 | ± 10 | 4422-11K | 70 | 2.5 | 18 | 2.00 | 224 | |
| IM-10-22 | 1100 | ± 5 | 1312-20J | 60 | 0.25 | 2.8 | 21.0 | 78 | |
| IM-10-22 | 1200 | ± 5 | 1312-21J | 60 | 0.25 | 2.7 | 22.0 | 76 | |
| IM-10-22 | 1300 | ± 5 | 1312-22J | 60 | 0.25 | 2.6 | 23.0 | 75 | |
| IM-10-22 | 1500 | ± 5 | 1312-23J | 65 | 0.25 | 2.4 | 25.0 | 72 | |
| IM-10-22 | 1600 | ± 5 | 1312-24J | 65 | 0.25 | 2.3 | 26.0 | 70 | |
| IM-10-22 | 1800 | ± 5 | 1312-25J | 65 | 0.25 | 2.2 | 28.0 | 68 | |
| IM-10-22 | 2000 | ± 5 | 1312-26J | 65 | 0.25 | 2.1 | 29.0 | 67 | |
| IM-10-22 | 2200 | ± 5 | 1312-27J | 70 | 0.25 | 2.0 | 30.0 | 66 | |
| IM-10-22 | 2400 | ± 5 | 1312-28J | 70 | 0.25 | 1.9 | 31.0 | 64 | |
| IM-10-22 | 2700 | ± 5 | 1312-29J | 70 | 0.25 | 1.8 | 33.0 | 62 | |
| IM-10-22 | 3000 | ± 5 | 1312-30J | 70 | 0.25 | 1.7 | 35.0 | 61 | |
| IM-10-22 | 3300 | ± 5 | 1312-31J | 70 | 0.25 | 1.6 | 38.0 | 58 | |
| IM-10-22 | 3600 | ± 5 | 1312-32J | 70 | 0.25 | 1.5 | 40.0 | 57 | |
| IM-10-28 | 1.2 | ± 10 | 4414-1K | 60 | 7.9 | 170 | 0.075 | 2400 | |
| IM-10-28 | 1.5 | ± 10 | 4414-2K | 60 | 7.9 | 160 | 0.090 | 2150 | |
| IM-10-28 | 1.8 | ± 10 | 4414-3K | 60 | 7.9 | 140 | 0.135 | 1750 | |
| IM-10-28 | 2.2 | ± 10 | 4414-4K | 60 | 7.9 | 125 | 0.160 | 1600 | |
| IM-10-28 | 2.7 | ± 10 | 4414-5K | 60 | 7.9 | 115 | 0.220 | 1350 | |
| IM-10-28 | 3.3 | ± 10 | 4414-6K | 60 | 7.9 | 100 | 0.305 | 1150 | |
| IM-10-28 | 3.9 | ± 10 | 4414-7K | 60 | 7.9 | 95 | 0.450 | 955 | |
| IM-10-28 | 4.7 | ± 10 | 4414-8K | 60 | 7.9 | 90 | 0.560 | 860 | |
| IM-10-28 | 5.6 | ± 10 | 4414-9K | 60 | 7.9 | 80 | 0.745 | 745 | |
| IM-10-28 | 6.8 | ± 10 | 4414-10K | 60 | 7.9 | 75 | 1.05 | 635 | |
| IM-10-28 | 8.2 | ± 10 | 4414-11K | 60 | 7.9 | 68 | 1.40 | 550 | |
| IM-10-28 | 10 | ± 10 | 4414-12K | 60 | 7.9 | 60 | 1.90 | 460 | |
| IM-10-28 | 12 | ± 10 | 4414-13K | 40 | 2.5 | 53 | 2.65 | 395 | |
| IM-10-28 | 15 | ± 10 | 4414-14K | 40 | 2.5 | 50 | 3.25 | 355 | |
| IM-10-28 | 18 | ± 10 | 4414-15K | 40 | 2.5 | 45 | 4.15 | 315 | |
| IM-10-28 | 22 | ± 10 | 4424-1K | 50 | 2.5 | 24 | 0.295 | 725 | |
| IM-10-28 | 27 | ± 10 | 4424-2K | 45 | 2.5 | 22 | 0.350 | 660 | |
| IM-10-28 | 33 | ± 10 | 4424-3K | 60 | 2.5 | 19 | 0.550 | 525 | |
| IM-10-28 | 39 | ± 10 | 4424-4K | 55 | 2.5 | 18 | 0.650 | 485 | |
| IM-10-28 | 47 | ± 10 | 4424-5K | 65 | 2.5 | 16 | 1.00 | 390 | |
| IM-10-28 | 56 | ± 10 | 4424-6K | 65 | 2.5 | 14 | 1.15 | 360 | |
| IM-10-28 | 68 | ± 10 | 4424-7K | 75 | 2.5 | 13 | 1.85 | 285 | |
| IM-10-28 | 82 | ± 10 | 4424-8K | 75 | 2.5 | 12 | 2.10 | 265 | |
| IM-10-28 | 100 | ± 10 | 4424-9K | 75 | 2.5 | 12 | 2.50 | 245 | |
| IM-10-28 | 120 | ± 10 | 4424-10K | 95 | 0.79 | 10 | 4.10 | 195 | |
| IM-10-31 | 180 | ± 10 | 31A181K | 80 | 0.79 | 6 | 5.5 | 148 | |
| IM-10-31 | 220 | ± 10 | 31A221K | 80 | 0.79 | 5.5 | 5.9 | 145 | |
| IM-10-31 | 270 | ± 10 | 31A271K | 80 | 0.79 | 5.1 | 6.6 | 138 | |
| IM-10-31 | 330 | ± 10 | 31A331K | 75 | 0.79 | 4.2 | 7.8 | 122 | |
| IM-10-31 | 390 | ± 10 | 31A391K | 75 | 0.79 | 3.9 | 8.7 | 118 | |
| IM-10-37 | 470 | ± 10 | 37A471K | 80 | 0.79 | 3.7 | 9.0 | 125 | |
| IM-10-37 | 560 | ± 10 | 37A561K | 80 | 0.79 | 3.5 | 10.0 | 118 | |
| IM-10-37 | 680 | ± 10 | 37A681K | 75 | 0.79 | 3.2 | 11.2 | 112 | |
| IM-10-37 | 820 | ± 10 | 37A821K | 75 | 0.79 | 3.0 | 13.0 | 105 | |
| IM-10-37 | 1000 | ± 10 | 37A102K | 70 | 0.79 | 2.7 | 14.5 | 95 | |
| IM-10-46 | 1500 | ± 10 | 46A152K | 85 | 0.25 | 2.2 | 22.0 | 84 | |
| IM-10-46 | 2200 | ± 10 | 46A222K | 85 | 0.25 | 1.8 | 27.0 | 76 | |
| IM-10-46 | 2700 | ± 10 | 46A272K | 85 | 0.25 | 1.6 | 32.0 | 69 | |
| IM-10-46 | 5100 | ± 10 | 46A512K | 70 | 0.25 | 1.0 | 66.0 | 48 | |
| IM-10-46 | 10 000 | ± 10 | 46A103K | 70 | 0.25 | 0.8 | 70.0 | 47 | |



IM-10-22, IM-10-28, IM-10-31, IM-10-37, IM-10-46

Inductors, Commercial, Molded, Axial Leaded

Vishay Dale

MARKING

- Color coded, see packaging

ORDERING INFORMATION

IM-10-22
MODEL

22 μ H
INDUCTANCE
VALUE

$\pm 10\%$
INDUCTANCE
TOLERANCE

EZ
PACKAGE
CODE

e2
JEDEC LEAD (Pb)-FREE
STANDARD

GLOBAL PART NUMBER

I **M** **1** **0**
MODEL

E **Z**
PACKAGE
CODE

2 **2** **0**
INDUCTANCE
VALUE

K
INDUCTANCE
TOLERANCE

2 **2**
SERIES



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