



**THE DATASHEET OF
IMC1210ER220J**



Wirewound, Surface Mount Molded Inductors



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | |
|------------------------------------|------|------------------|--------|----------------|--------------|--------------------------------------|
| IND. (μH) | TOL. | TEST FREQ. (MHz) | Q MIN. | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽¹⁾ |
| | | L & Q | | | | |
| 0.010 | 20 % | 50 | 30 | 1000 | 0.13 | 734 |
| 0.012 | 20 % | 50 | 30 | 1000 | 0.14 | 707 |
| 0.015 | 20 % | 50 | 30 | 1000 | 0.16 | 661 |
| 0.018 | 20 % | 50 | 30 | 1000 | 0.18 | 624 |
| 0.022 | 20 % | 50 | 30 | 1000 | 0.20 | 592 |
| 0.027 | 20 % | 50 | 30 | 1000 | 0.22 | 564 |
| 0.033 | 20 % | 50 | 30 | 1000 | 0.24 | 540 |
| 0.039 | 20 % | 50 | 30 | 1000 | 0.27 | 530 |
| 0.047 | 20 % | 50 | 30 | 1000 | 0.30 | 483 |
| 0.056 | 20 % | 50 | 30 | 1000 | 0.33 | 470 |
| 0.068 | 20 % | 50 | 30 | 1000 | 0.36 | 450 |
| 0.082 | 20 % | 50 | 30 | 900 | 0.40 | 450 |
| 0.10 | 20 % | 50 | 30 | 700 | 0.44 | 450 |
| 0.12 | 20 % | 25.2 | 30 | 500 | 0.22 | 584 |
| 0.15 | 20 % | 25.2 | 30 | 450 | 0.25 | 548 |
| 0.18 | 20 % | 25.2 | 30 | 400 | 0.28 | 518 |
| 0.22 | 20 % | 25.2 | 30 | 350 | 0.32 | 484 |
| 0.27 | 20 % | 25.2 | 30 | 320 | 0.36 | 456 |
| 0.33 | 20 % | 25.2 | 30 | 300 | 0.40 | 453 |
| 0.39 | 20 % | 25.2 | 30 | 250 | 0.45 | 450 |
| 0.47 | 20 % | 25.2 | 30 | 220 | 0.50 | 450 |
| 0.56 | 20 % | 25.2 | 30 | 180 | 0.55 | 450 |
| 0.68 | 20 % | 25.2 | 30 | 160 | 0.60 | 450 |
| 0.82 | 20 % | 25.2 | 30 | 140 | 0.67 | 450 |
| 1.0 | 10 % | 7.96 | 30 | 120 | 0.70 | 400 |
| 1.2 | 10 % | 7.96 | 30 | 100 | 0.75 | 390 |
| 1.5 | 10 % | 7.96 | 30 | 85 | 0.85 | 370 |
| 1.8 | 10 % | 7.96 | 30 | 80 | 0.90 | 350 |
| 2.2 | 10 % | 7.96 | 30 | 75 | 1.0 | 320 |
| 2.7 | 10 % | 7.96 | 30 | 70 | 1.1 | 290 |
| 3.3 | 10 % | 7.96 | 30 | 60 | 1.2 | 260 |
| 3.9 | 10 % | 7.96 | 30 | 55 | 1.3 | 250 |
| 4.7 | 10 % | 7.96 | 30 | 50 | 1.5 | 224 |
| 5.6 | 10 % | 7.96 | 30 | 45 | 1.6 | 217 |
| 6.8 | 10 % | 7.96 | 30 | 40 | 1.8 | 204 |
| 8.2 | 10 % | 7.96 | 30 | 38 | 2.0 | 194 |
| 10 | 10 % | 2.52 | 30 | 33 | 2.1 | 189 |
| 12 | 10 % | 2.52 | 30 | 30 | 2.5 | 173 |
| 15 | 10 % | 2.52 | 30 | 21 | 2.8 | 164 |
| 18 | 10 % | 2.52 | 30 | 20 | 3.3 | 151 |
| 22 | 10 % | 2.52 | 30 | 19 | 3.7 | 145 |
| 27 | 10 % | 2.52 | 30 | 18 | 5.0 | 122 |
| 33 | 10 % | 2.52 | 30 | 16 | 6.0 | 112 |
| 39 | 10 % | 2.52 | 30 | 15 | 7.0 | 104 |
| 47 | 10 % | 2.52 | 30 | 14 | 9.0 | 91 |
| 56 | 10 % | 2.52 | 30 | 12 | 10.0 | 87 |
| 68 | 10 % | 2.52 | 30 | 11 | 11.0 | 83 |
| 82 | 10 % | 2.52 | 30 | 10 | 12.0 | 79 |
| 100 | 10 % | 0.796 | 20 | 9 | 14.0 | 73 |
| 120 | 10 % | 0.796 | 15 | 8 | 11.0 | 70 |
| 150 | 10 % | 0.796 | 15 | 6.5 | 15.0 | 65 |
| 180 | 10 % | 0.796 | 15 | 6 | 17.0 | 60 |
| 220 | 10 % | 0.796 | 15 | 6 | 21.0 | 50 |

Note

(1) Rated DC current based on the maximum temperature rise, not to exceed 40 °C at +85 °C ambient

FEATURES

- Printed marking
- Molded construction provides superior strength and moisture resistance
- Compatible with vapor phase and infrared reflow soldering
- Tape and reel packaging for automatic handling, 2000/reel, EIA-481
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

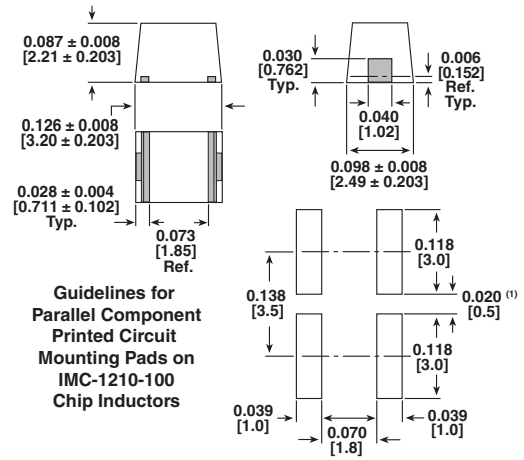
ELECTRICAL SPECIFICATIONS

Inductance range: 0.01 μH to 220 μH
Special tolerances available upon request
Operating temperature: -55 °C to +125 °C
Coilform material: Non-magnetic from 0.01 μH to 0.10 μH
 Powdered iron from 0.12 μH to 100 μH
 Ferrite from 120 μH to 220 μH

TEST EQUIPMENT

- HP4342A Q meter with Vishay Dale test fixture or equivalent
- HP4191A RF impedance analyzer (for SRF measurements)
- Wheatstone bridge

DIMENSIONS in inches [millimeters]



Note
 (1) Recommended spacing between components

PART MARKING

- Vishay Dale
- Inductance value
- Date code

| DESCRIPTION | | | | |
|-------------|------------------|----------------------|--------------|--------------------------------|
| IMC-1210 | 10 μH | ± 10 % | ER | e3 |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

| GLOBAL PART NUMBER | | | | |
|--------------------|---|---|------------------|--------------|
| I | M | C | 1 2 1 0 | E R 1 0 0 K |
| PRODUCT FAMILY | | | SIZE | PACKAGE CODE |
| | | | INDUCTANCE VALUE | TOL. |



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