



**THE DATASHEET OF
IMC0805ERR56J01**



Wirewound, Surface Mount Inductors



| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|----------------|------------------|------|--------|----------------|--------------|-----------------------|
| IND. (nH) | TOL. | TEST FREQ. (MHz) | | Q MIN. | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) |
| | | L | Q | | | | |
| 2.2 | 0.3 nH, 0.2 nH | 250 | 1000 | 50 | 6000 | 0.06 | 800 |
| 2.7 | 0.3 nH, 0.2 nH | 250 | 1000 | 35 | 6000 | 0.08 | 800 |
| 3.3 | 0.3 nH, 0.2 nH | 250 | 1000 | 60 | 6000 | 0.08 | 800 |
| 3.9 | 0.3 nH, 0.2 nH | 250 | 1000 | 60 | 6000 | 0.06 | 600 |
| 4.7 | 0.3 nH, 0.2 nH | 250 | 1000 | 60 | 5800 | 0.06 | 600 |
| 5.6 | 5 %, 2 % | 250 | 1000 | 60 | 5800 | 0.08 | 600 |
| 6.8 | 5 %, 2 % | 250 | 1000 | 60 | 5500 | 0.06 | 600 |
| 8.2 | 5 %, 2 % | 250 | 1000 | 60 | 5500 | 0.06 | 600 |
| 10 | 5 %, 2 % | 250 | 500 | 60 | 4800 | 0.08 | 600 |
| 12 | 5 %, 2 % | 250 | 500 | 60 | 4100 | 0.08 | 600 |
| 15 | 5 %, 2 % | 250 | 500 | 60 | 3600 | 0.08 | 600 |
| 18 | 5 %, 2 % | 250 | 500 | 60 | 3400 | 0.08 | 600 |
| 22 | 5 %, 2 % | 250 | 500 | 60 | 3300 | 0.10 | 600 |
| 27 | 5 %, 2 % | 250 | 500 | 60 | 2600 | 0.12 | 600 |
| 33 | 5 %, 2 % | 250 | 500 | 60 | 2400 | 0.15 | 500 |
| 39 | 5 %, 2 % | 250 | 500 | 60 | 2100 | 0.18 | 500 |
| 47 | 5 %, 2 % | 200 | 500 | 60 | 1700 | 0.15 | 500 |
| 56 | 5 %, 2 % | 200 | 500 | 60 | 1600 | 0.25 | 500 |
| 68 | 5 %, 2 % | 200 | 500 | 60 | 1450 | 0.27 | 500 |
| 82 | 5 %, 2 % | 150 | 500 | 60 | 1350 | 0.32 | 500 |
| 100 | 5 %, 2 % | 150 | 500 | 60 | 1200 | 0.43 | 500 |
| 120 | 5 %, 2 % | 150 | 250 | 50 | 1100 | 0.48 | 500 |
| 150 | 5 %, 2 % | 100 | 250 | 50 | 950 | 0.56 | 400 |
| 180 | 5 %, 2 % | 100 | 250 | 50 | 900 | 0.78 | 400 |
| 220 | 5 %, 2 % | 100 | 250 | 50 | 860 | 1.00 | 400 |
| 270 | 5 %, 2 % | 100 | 250 | 45 | 850 | 1.46 | 350 |
| 330 | 5 %, 2 % | 100 | 250 | 45 | 800 | 1.65 | 300 |
| 390 | 5 %, 2 % | 100 | 250 | 45 | 780 | 2.20 | 210 |
| 470 | 5 % | 25.2 | 100 | 45 | 375 | 0.95 | 500 |
| 560 | 5 % | 25.2 | 100 | 45 | 340 | 1.10 | 450 |
| 680 | 5 % | 25.2 | 100 | 35 | 188 | 1.20 | 400 |
| 820 | 5 % | 25.2 | 100 | 35 | 215 | 1.50 | 300 |
| 1000 | 5 % | 25.2 | 50 | 35 | 200 | 2.13 | 180 |
| 1200 | 5 % | 7.96 | 7.96 | 15 | 200 | 2.60 | 150 |
| 1500 | 5 % | 7.96 | 7.96 | 15 | 200 | 2.90 | 130 |
| 1800 | 5 % | 7.96 | 7.96 | 15 | 120 | 3.00 | 120 |
| 2200 | 5 % | 7.96 | 7.96 | 15 | 110 | 3.10 | 110 |
| 2700 | 5 % | 7.96 | 7.96 | 15 | 100 | 3.50 | 100 |
| 3300 | 5 % | 7.96 | 7.96 | 15 | 70 | 2.30 | 210 |
| 3900 | 5 % | 7.96 | 7.96 | 15 | 60 | 2.50 | 200 |
| 4700 | 5 % | 7.96 | 7.96 | 15 | 50 | 2.80 | 180 |
| 5600 | 5 % | 7.96 | 7.96 | 15 | 45 | 3.00 | 160 |
| 6800 | 5 % | 7.96 | 7.96 | 15 | 45 | 3.20 | 130 |
| 8200 | 5 % | 7.96 | 7.96 | 15 | 40 | 3.50 | 120 |
| 10 000 | 5 % | 2.52 | 2.52 | 10 | 40 | 5.00 | 80 |

FEATURES

- High self-resonant frequency values
- High Q values at higher frequencies
- Wirewound construction
- Compatible with vapor phase and infrared reflow soldering
- Tape and reel packaging for automatic handling, 2000/reel
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



RoHS
COMPLIANT
HALOGEN
FREE

ELECTRICAL SPECIFICATIONS

Inductance Range: 2.2 nH to 10 000 nH

Inductance and Tolerance: 0.3 nH for 2.2 nH to 4.7 nH, ± 5 % for 5.6 nH to 10 000 nH

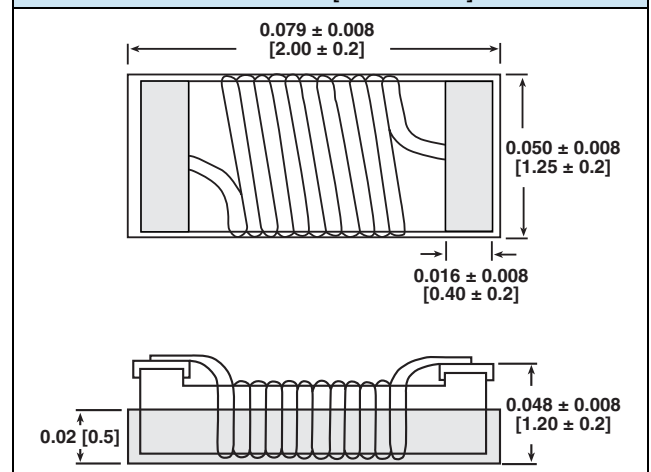
Operating Temperature: - 40 °C to + 125 °C

Core Material: Ceramic from 2.2 nH to 390 nH; Ferrite from 470 nH to 10 000 nH

TEST EQUIPMENT

- Inductance and Q measured on HP4286A (2.2 nH to 390 nH) and HP4285A (470 nH to 10 000 nH)
- SRF is measured on HP8753E
- DCR is measured on HP4338B

DIMENSIONS in inches [millimeters]



DESCRIPTION

| | | | | |
|--------------------|------------------|----------------------|--------------|-------------------------------|
| IMC-0805-01 | 10 nH | ± 5 % | ER | e4⁽¹⁾ |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

Note

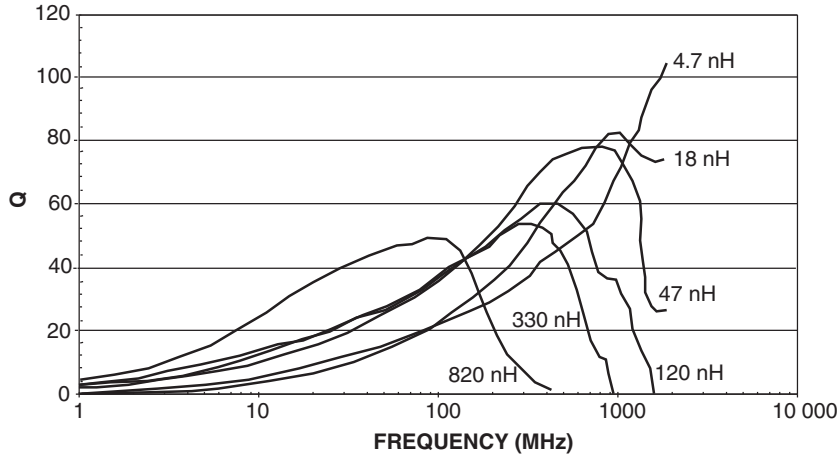
⁽¹⁾ For parts within 2.2 nH to 390 nH please use e4 for JEDEC lead (Pb)-free standard. For parts within 470 nH to 10 000 nH please use e3 for JEDEC lead (Pb)-free standard.

GLOBAL PART NUMBER

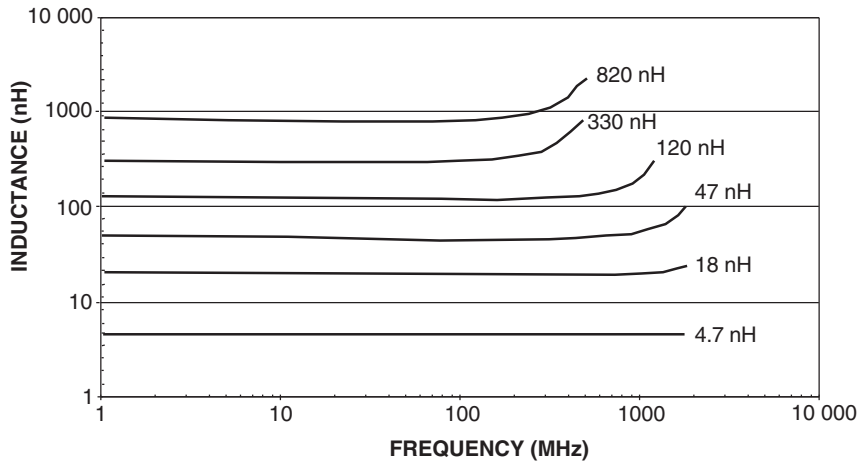
| | | | | | | | | | | | | | | |
|----------------|----------|----------|----------|----------|----------|--------------|----------|------------------|----------|----------|----------|----------|----------|----------|
| I | M | C | 0 | 8 | 0 | 5 | E | R | 1 | 0 | N | J | 0 | 1 |
| PRODUCT FAMILY | | | SIZE | | | PACKAGE CODE | | INDUCTANCE VALUE | | | TOL. | SERIES | | |

PERFORMANCE GRAPHS (IMC-0805-01)

Q VS. FREQUENCY

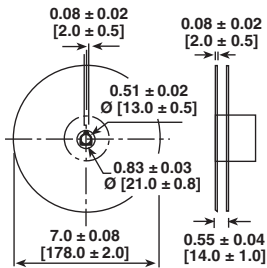


INDUCTANCE VS. FREQUENCY

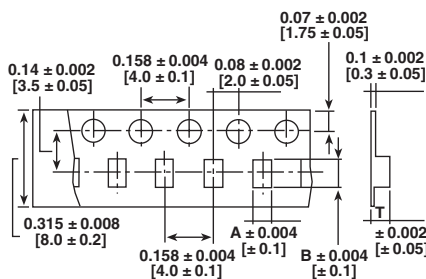


TAPE AND REEL SPECIFICATIONS in inches [millimeters]

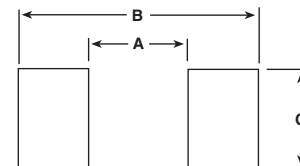
REEL DIMENSIONS



TAPE DIMENSIONS



RECOMMENDED PATTERN



| MODEL | UNITS PER REEL | MODEL | A | B | T | MODEL | A | B | C |
|-------------|----------------|-------------|----------------|----------------|----------------|-------------|-----------------|----------------|-----------------|
| IMC-0805-01 | 2000 | IMC-0805-01 | 0.055 [1.4] | 0.091 [2.3] | 0.055 [1.4] | IMC-0805-01 | 0.047 [1.20] | 0.102 [2.6] | 0.047 [1.20] |



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