



**THE DATASHEET OF
IMC0805ERR27J01**



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

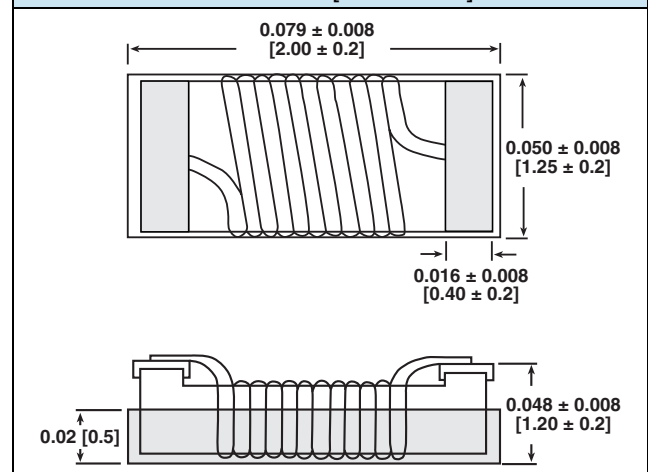
Inductance and Tolerance: 0.3 nH for 2.2 nH to 4.7 nH, ± 5 % for 5.6 nH to 10 000 nH

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

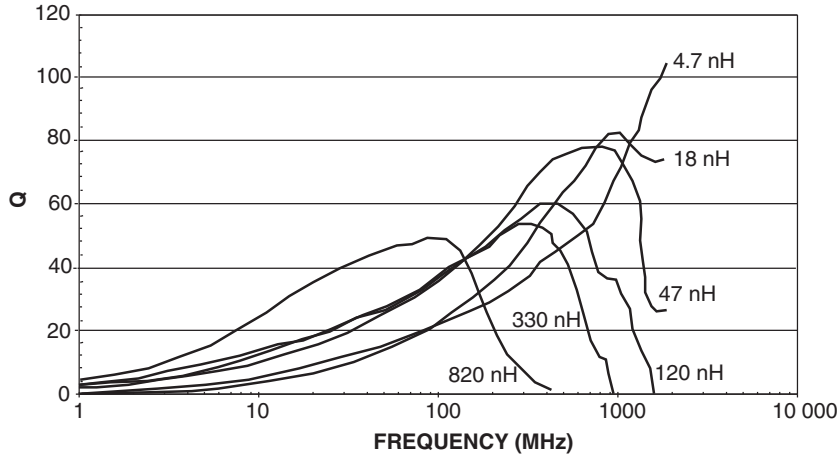
⁽¹⁾ For parts within 2.2 nH to 390 nH please use e4 for JEDEC lead (Pb)-free standard. For parts within 470 nH to 10 000 nH please use e3 for JEDEC lead (Pb)-free standard.

GLOBAL PART NUMBER

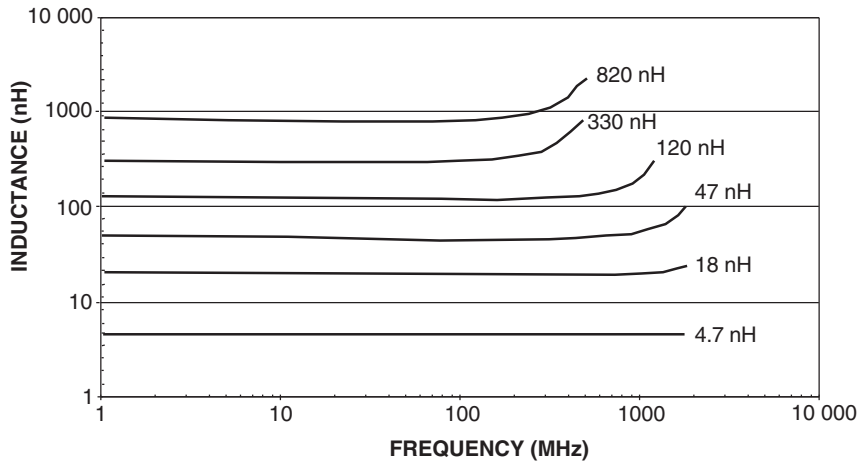
| | | | | | | | | | | | | | | |
|----------------|---|---|------|---|---|--------------|---|------------------|---|---|------|--------|---|---|
| I | M | C | 0 | 8 | 0 | 5 | E | R | 1 | 0 | N | J | 0 | 1 |
| PRODUCT FAMILY | | | SIZE | | | PACKAGE CODE | | INDUCTANCE VALUE | | | TOL. | SERIES | | |

PERFORMANCE GRAPHS (IMC-0805-01)

Q VS. FREQUENCY

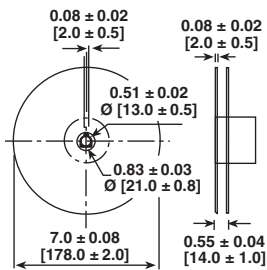


INDUCTANCE VS. FREQUENCY

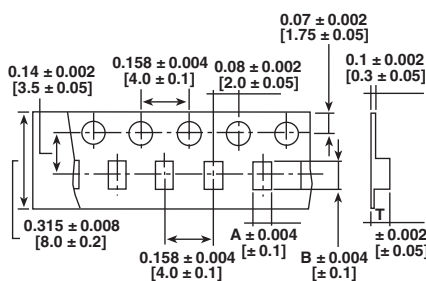


TAPE AND REEL SPECIFICATIONS in inches [millimeters]

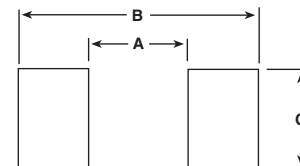
REEL DIMENSIONS



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] |



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View IMC0805ERR27J01 on WIN SOURCE](#)

 [Vishay Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management