



**THE DATASHEET OF  
IMCH1812ER3R3K**



## 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) <sup>(1)</sup> |
|                                    |        | L & Q            |        |                |              |                                      |
| 1.0                                | ± 10 % | 7.96             | 10     | 200            | 0.11         | 1050                                 |
| 1.2                                | ± 10 % | 7.96             | 10     | 160            | 0.12         | 1000                                 |
| 1.5                                | ± 10 % | 7.96             | 10     | 130            | 0.15         | 950                                  |
| 1.8                                | ± 10 % | 7.96             | 10     | 100            | 0.16         | 900                                  |
| 2.2                                | ± 10 % | 7.96             | 10     | 60.0           | 0.18         | 850                                  |
| 2.7                                | ± 10 % | 7.96             | 10     | 60.0           | 0.20         | 800                                  |
| 3.3                                | ± 10 % | 7.96             | 10     | 45.0           | 0.22         | 750                                  |
| 3.9                                | ± 10 % | 7.90             | 10     | 40.0           | 0.24         | 700                                  |
| 4.7                                | ± 10 % | 7.96             | 10     | 35.0           | 0.3          | 650                                  |
| 5.6                                | ± 10 % | 7.96             | 10     | 30.0           | 0.3          | 650                                  |
| 6.8                                | ± 10 % | 7.96             | 10     | 28.0           | 0.4          | 600                                  |
| 8.2                                | ± 10 % | 7.96             | 10     | 25.0           | 0.4          | 600                                  |
| 10                                 | ± 10 % | 2.52             | 10     | 22.0           | 0.5          | 550                                  |
| 12                                 | ± 10 % | 2.52             | 10     | 21.0           | 0.6          | 500                                  |
| 15                                 | ± 10 % | 2.52             | 10     | 20.0           | 0.7          | 450                                  |
| 18                                 | ± 10 % | 2.52             | 10     | 19.0           | 0.8          | 400                                  |
| 22                                 | ± 10 % | 2.52             | 10     | 18.0           | 0.9          | 370                                  |
| 27                                 | ± 10 % | 2.52             | 10     | 16.0           | 1.2          | 330                                  |
| 33                                 | ± 10 % | 2.52             | 10     | 14.0           | 1.4          | 300                                  |
| 39                                 | ± 10 % | 2.52             | 10     | 12.0           | 1.6          | 280                                  |
| 47                                 | ± 10 % | 2.52             | 10     | 11.5           | 1.9          | 260                                  |
| 56                                 | ± 10 % | 2.52             | 10     | 11.0           | 2.2          | 240                                  |
| 68                                 | ± 10 % | 2.52             | 10     | 10.0           | 2.6          | 220                                  |
| 82                                 | ± 10 % | 2.52             | 10     | 9.0            | 3.5          | 200                                  |
| 100                                | ± 10 % | 0.796            | 20     | 8.0            | 4.0          | 180                                  |
| 120                                | ± 10 % | 0.796            | 20     | 6.5            | 4.5          | 160                                  |
| 150                                | ± 10 % | 0.796            | 20     | 7.0            | 6.5          | 140                                  |
| 180                                | ± 10 % | 0.796            | 20     | 5.5            | 7.5          | 120                                  |
| 220                                | ± 10 % | 0.796            | 20     | 5.5            | 9            | 120                                  |
| 270                                | ± 10 % | 0.796            | 20     | 5.0            | 11           | 100                                  |
| 330                                | ± 10 % | 0.796            | 20     | 4.0            | 13           | 90                                   |

**Note**

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

**FEATURES**

- Molded construction provides superior strength and moisture resistance
- Tape and reel packaging for automatic handling, 500/reel, EIA-481
- Compatible with vapor phase, infrared and wave soldering methods
- Compliant to RoHS Directive 2002/95/EC


**RoHS**  
COMPLIANT

**ELECTRICAL SPECIFICATIONS**
**Inductance Range:** 1 μH to 330 μH

**Inductance Tolerance:** ± 10 %

**Operating Temperature:** - 40 °C to + 85 °C

**Storage Temperature:** - 40 °C to + 100 °C

**TEST EQUIPMENT**

- L & Q: H/P 4285A
- SRF: H/P 4286A
- DCR: H/P 34401

**DIMENSIONS** in inches [millimeters]

| A                            | B                            | C                            |
|------------------------------|------------------------------|------------------------------|
| 0.177 ± 0.012<br>[4.5 ± 0.3] | 0.126 ± 0.012<br>[3.2 ± 0.3] | 0.126 ± 0.012<br>[3.2 ± 0.3] |
| D                            | E                            |                              |
| 0.055 ± 0.016<br>[1.4 ± 0.4] | 0.035 ± 0.008<br>[0.9 ± 0.2] |                              |

**PART MARKING**

- Inductance value

**DESCRIPTION**

|                  |                  |                      |              |                               |
|------------------|------------------|----------------------|--------------|-------------------------------|
| <b>IMCH-1812</b> | <b>22 μH</b>     | <b>± 10 %</b>        | <b>ER</b>    | <b>e3</b>                     |
| MODEL            | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

**GLOBAL PART NUMBER**

|                |   |   |   |      |   |   |   |              |   |                  |   |   |      |
|----------------|---|---|---|------|---|---|---|--------------|---|------------------|---|---|------|
| I              | M | C | H | 1    | 8 | 1 | 2 | E            | R | 2                | 2 | 0 | K    |
| PRODUCT FAMILY |   |   |   | SIZE |   |   |   | PACKAGE CODE |   | INDUCTANCE VALUE |   |   | TOL. |



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