# High Current, Surface Mount Inductors - Non-Shielded



## FEATURES

- High energy storage
- Low resistance
- Tape and reel packaging for automatic handling
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1.0 µH to 68 µH

**Inductance Tolerance:** 20 %

**Operating Temperature:** -40 °C to +125 °C (temperature rise included)#

**Storage Temperature:** -40 °C to +125 °C

**Resistance to Solder Heat:** 260 °C for 10 s

## MATERIALS

**Core:** ferrite

**Wire:** enamelled copper wire

**Terminals:** Ag and Sn / Ag / Cu

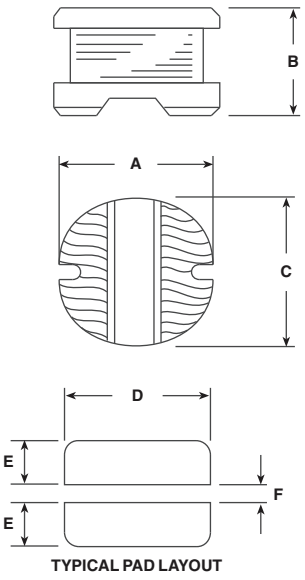
## STANDARD ELECTRICAL SPECIFICATIONS

| INDUCTANCE (µH) | TEST FREQUENCY L | DCR MAX. (Ω) | RATED DC CURRENT (A) (1) |
|---|---|---|---|
| 1.0 | 7.96 MHz | 0.033 | 3.80 |
| 1.4 | 7.96 MHz | 0.038 | 3.30 |
| 1.8 | 7.96 MHz | 0.042 | 2.91 |
| 2.2 | 7.96 MHz | 0.047 | 2.60 |
| 2.7 | 7.96 MHz | 0.052 | 2.43 |
| 3.3 | 7.96 MHz | 0.058 | 2.15 |
| 3.9 | 7.96 MHz | 0.076 | 1.98 |
| 4.7 | 7.96 MHz | 0.094 | 1.70 |
| 5.6 | 7.96 MHz | 0.101 | 1.60 |
| 6.8 | 7.96 MHz | 0.117 | 1.41 |
| 8.2 | 7.96 MHz | 0.132 | 1.26 |
| 10.0 | 2.52 MHz | 0.182 | 1.15 |
| 12.0 | 2.52 MHz | 0.210 | 1.05 |
| 15.0 | 2.52 MHz | 0.235 | 0.92 |
| 18.0 | 2.52 MHz | 0.338 | 0.84 |
| 22.0 | 2.52 MHz | 0.378 | 0.76 |
| 27.0 | 2.52 MHz | 0.522 | 0.71 |
| 33.0 | 2.52 MHz | 0.540 | 0.64 |
| 39.0 | 2.52 MHz | 0.587 | 0.59 |
| 47.0 | 2.52 MHz | 0.844 | 0.54 |
| 56.0 | 2.52 MHz | 0.937 | 0.50 |
| 68.0 | 2.52 MHz | 1.117 | 0.46 |

**Note**

(1) Rated Current: Value obtained when current flows and the temperature has risen 40 °C or when DC current flows and the initial value of inductance has fallen by 10 %, whichever is smaller

## DIMENSIONS in inches [millimeters]




TYPICAL PAD LAYOUT

| A | B | C |
|---|---|---|
| 0.178 ± 0.01 [4.5 ± 0.3] | 0.126 ± 0.01 [3.2 ± 0.3] | 0.158 ± 0.01 [4.0 ± 0.3] |
| **D** | **E** | **F** |
| 0.178 [4.5] | 0.069 [1.75] | 0.059 [1.5] |

## DESCRIPTION

| IDCP-1813 | 10 µH | ± 20 % | ER | e1 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

| I | D | C | P | 1 | 8 | 1 | 3 | E | R | 1 | 0 | 0 | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCT FAMILY | | | | SIZE | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | INDUCTANCE TOLERANCE |



For technical questions, contact: magnetics@vishay.com

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