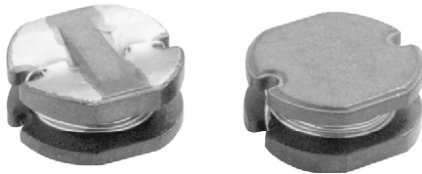


# High Current, Surface Mount Inductors - Non-Shielded



## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 10  $\mu$ H to 470  $\mu$ H

**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

| STANDARD ELECTRICAL SPECIFICATIONS |                  |                       |                                     |
|------------------------------------|------------------|-----------------------|-------------------------------------|
| INDUCTANCE ( $\mu$ H)              | TEST FREQUENCY L | DCR MAX. ( $\Omega$ ) | RATED DC CURRENT (A) <sup>(1)</sup> |
| 10.0                               | 2.52 MHz         | 0.07                  | 2.30                                |
| 12.0                               | 2.52 MHz         | 0.08                  | 2.00                                |
| 15.0                               | 2.52 MHz         | 0.09                  | 1.80                                |
| 18.0                               | 2.52 MHz         | 0.10                  | 1.60                                |
| 22.0                               | 2.52 MHz         | 0.11                  | 1.50                                |
| 27.0                               | 2.52 MHz         | 0.12                  | 1.30                                |
| 33.0                               | 2.52 MHz         | 0.13                  | 1.20                                |
| 39.0                               | 2.52 MHz         | 0.16                  | 1.10                                |
| 47.0                               | 2.52 MHz         | 0.18                  | 1.10                                |
| 56.0                               | 2.52 MHz         | 0.24                  | 0.94                                |
| 68.0                               | 2.52 MHz         | 0.28                  | 0.85                                |
| 82.0                               | 2.52 MHz         | 0.37                  | 0.78                                |
| 100.0                              | 1 kHz            | 0.43                  | 0.72                                |
| 120.0                              | 1 kHz            | 0.47                  | 0.66                                |
| 150.0                              | 1 kHz            | 0.64                  | 0.58                                |
| 180.0                              | 1 kHz            | 0.71                  | 0.51                                |
| 220.0                              | 1 kHz            | 0.96                  | 0.49                                |
| 270.0                              | 1 kHz            | 1.11                  | 0.42                                |
| 330.0                              | 1 kHz            | 1.26                  | 0.40                                |
| 390.0                              | 1 kHz            | 1.77                  | 0.36                                |
| 470.0                              | 1 kHz            | 1.96                  | 0.34                                |

**Note**

<sup>(1)</sup> 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

## 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](http://www.vishay.com/doc?99912)



**RoHS COMPLIANT**  
**HALOGEN FREE**

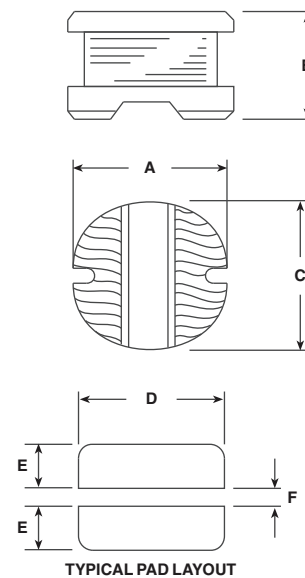
## MATERIALS

**Core:** ferrite

**Wire:** enamelled copper wire

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

## DIMENSIONS in inches [millimeters]



| A                           | B                           | C                           |
|-----------------------------|-----------------------------|-----------------------------|
| 0.307 ± 0.01<br>[7.8 ± 0.3] | 0.197 ± 0.02<br>[5.0 ± 0.5] | 0.276 ± 0.01<br>[7.0 ± 0.3] |
| D                           | E                           | F                           |
| 0.296 [7.5]                 | 0.118 [3.0]                 | 0.079 [2.0]                 |

## DESCRIPTION

| IDCP-3020 | 10 $\mu$ H       | ± 20 %               | ER           | e1                             |
|-----------|------------------|----------------------|--------------|--------------------------------|
| MODEL     | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

|                |   |   |   |      |   |   |   |              |   |                  |   |   |                      |
|----------------|---|---|---|------|---|---|---|--------------|---|------------------|---|---|----------------------|
| I              | D | C | P | 3    | 0 | 2 | 0 | E            | R | 1                | 0 | 0 | M                    |
| PRODUCT FAMILY |   |   |   | SIZE |   |   |   | PACKAGE CODE |   | INDUCTANCE VALUE |   |   | INDUCTANCE TOLERANCE |



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