

# **High Current, Surface Mount Inductors - Non-Shielded**





#### **ELECTRICAL SPECIFICATIONS**

Inductance Range: 10 µH to 470 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

| STANDARD ELECTRICAL SPECIFICATIONS |                        |                 |   |  |  |  |  |
|------------------------------------|------------------------|-----------------|---|--|--|--|--|
| INDUCTANCE (µH)                    | TEST<br>FREQUENCY<br>L | DCR MAX.<br>(Ω) | RATED DC<br>CURRENT<br>(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

#### **FEATURES**

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



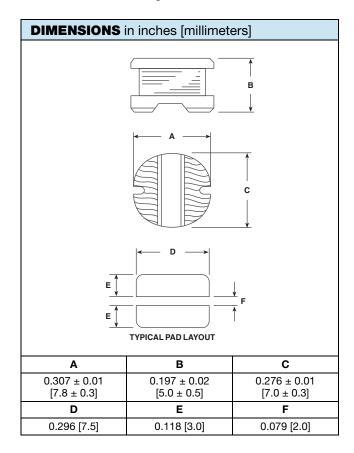
RoHS COMPLIANT

HALOGEN FREE

#### **MATERIALS**

Core: ferrite

Wire: enamelled copper wire Terminals: Ni and Sn / Ag / Cu



| DESCRIPTION |                  |                      |              |                                |  |  |  |
|-------------|------------------|----------------------|--------------|--------------------------------|--|--|--|
| IDCP-3020   | 10 μH            | ± 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<br>CODE | INDUCTANCE<br>VALUE | INDUCTANCE<br>TOLERANCE |

<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



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