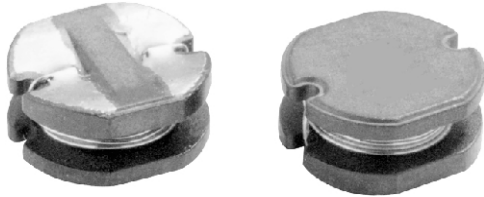


# High Current, Surface Mount Inductors - Non-Shielded



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



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

## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 10  $\mu$ H to 820  $\mu$ 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

## MATERIALS

**Core:** ferrite

**Wire:** enamelled copper wire

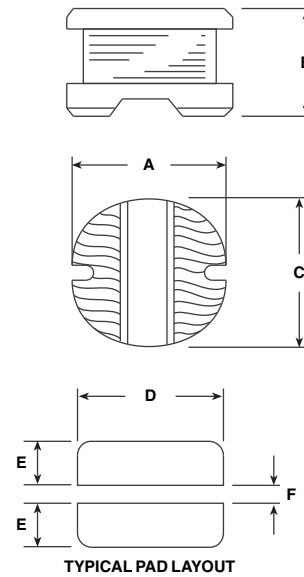
**Terminals:** Ni and Sn / Ag / Cu

| STANDARD ELECTRICAL SPECIFICATIONS |                  |                       |                                     |
|------------------------------------|------------------|-----------------------|-------------------------------------|
| INDUCTANCE ( $\mu$ H)              | TEST FREQUENCY L | DCR MAX. ( $\Omega$ ) | RATED DC CURRENT (A) <sup>(1)</sup> |
| 10.0                               | 2.52 MHz         | 0.06                  | 2.60                                |
| 12.0                               | 2.52 MHz         | 0.07                  | 2.45                                |
| 15.0                               | 2.52 MHz         | 0.08                  | 2.27                                |
| 18.0                               | 2.52 MHz         | 0.09                  | 2.15                                |
| 22.0                               | 2.52 MHz         | 0.10                  | 1.95                                |
| 27.0                               | 2.52 MHz         | 0.11                  | 1.76                                |
| 33.0                               | 2.52 MHz         | 0.12                  | 1.50                                |
| 39.0                               | 2.52 MHz         | 0.14                  | 1.37                                |
| 47.0                               | 2.52 MHz         | 0.17                  | 1.28                                |
| 56.0                               | 2.52 MHz         | 0.19                  | 1.17                                |
| 68.0                               | 2.52 MHz         | 0.22                  | 1.11                                |
| 82.0                               | 2.52 MHz         | 0.25                  | 1.00                                |
| 100.0                              | 1 kHz            | 0.35                  | 0.97                                |
| 120.0                              | 1 kHz            | 0.40                  | 0.89                                |
| 150.0                              | 1 kHz            | 0.47                  | 0.78                                |
| 180.0                              | 1 kHz            | 0.63                  | 0.72                                |
| 220.0                              | 1 kHz            | 0.73                  | 0.66                                |
| 270.0                              | 1 kHz            | 0.97                  | 0.57                                |
| 330.0                              | 1 kHz            | 1.15                  | 0.52                                |
| 390.0                              | 1 kHz            | 1.30                  | 0.48                                |
| 470.0                              | 1 kHz            | 1.48                  | 0.42                                |
| 560.0                              | 1 kHz            | 1.90                  | 0.33                                |
| 680.0                              | 1 kHz            | 2.25                  | 0.28                                |
| 820.0                              | 1 kHz            | 2.55                  | 0.24                                |

**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

## DIMENSIONS in inches [millimeters]



| A                            | B                           | C                           |
|------------------------------|-----------------------------|-----------------------------|
| 0.394 ± 0.02<br>[10.0 ± 0.4] | 0.213 ± 0.02<br>[5.4 ± 0.4] | 0.355 ± 0.02<br>[9.0 ± 0.4] |
| D                            | E                           | F                           |
| 0.374 [9.5]                  | 0.148 [3.75]                | 0.099 [2.5]                 |

| DESCRIPTION |                  |                      |              |                                |
|-------------|------------------|----------------------|--------------|--------------------------------|
| IDCP-3722   | 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                    |  |
| PRODUCT FAMILY     |   |   |                      |  |
| 3                  | 7 | 2 | 2                    |  |
| SIZE               |   |   |                      |  |
| E                  | R |   |                      |  |
| PACKAGE CODE       |   |   |                      |  |
| 1                  | 0 | 0 |                      |  |
| INDUCTANCE VALUE   |   |   |                      |  |
|                    |   |   | M                    |  |
|                    |   |   | INDUCTANCE TOLERANCE |  |



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