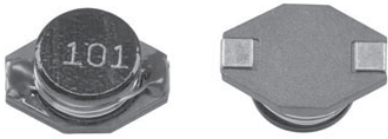


**IDC-5020**

Vishay Dale

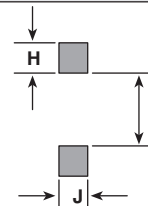
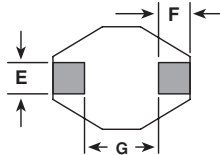
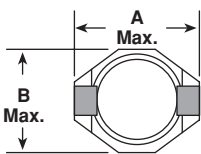
**High Current, Surface Mount Inductor****FEATURES**

- High energy storage.
- Low resistance.
- Tape and reel packaging for automatic handling.

**ELECTRICAL SPECIFICATIONS****Inductance Range:** 1.0 $\mu$ H to 1000 $\mu$ H, tested at 1.0Vrms.**Inductance Tolerance:** 20%, tighter tolerances available upon request.**Operating Temperature:** - 40°C to + 125°C.**Resistance to Solder Heat:** 260°C for 10 seconds.**MATERIALS****Core:** Ferrite.**Wire:** Enamelled copper wire.**Base:** LCP.**Terminal:** Nickel bronze.**Adhesive:** Epoxy resin.**STANDARD ELECTRICAL SPECIFICATIONS**

| INDUCTANCE<br>( $\mu$ H) | TOLERANCE  | TEST<br>FREQUENCY<br>L<br>(KHz) | DCR<br>MAX.<br>(Ohms) | Isat<br>(Amps) | Irms<br>(Amps) |
|--------------------------|------------|---------------------------------|-----------------------|----------------|----------------|
| 1.0                      | $\pm 20\%$ | 100                             | 0.009                 | 9.0            | 6.8            |
| 1.5                      | $\pm 20\%$ | 100                             | 0.010                 | 8.0            | 6.4            |
| 2.2                      | $\pm 20\%$ | 100                             | 0.012                 | 7.0            | 6.1            |
| 3.3                      | $\pm 20\%$ | 100                             | 0.015                 | 6.4            | 5.4            |
| 4.7                      | $\pm 20\%$ | 100                             | 0.018                 | 5.4            | 4.8            |
| 6.8                      | $\pm 20\%$ | 100                             | 0.027                 | 4.6            | 4.4            |
| 10                       | $\pm 20\%$ | 100                             | 0.038                 | 3.8            | 3.9            |
| 15                       | $\pm 20\%$ | 100                             | 0.046                 | 3.0            | 3.1            |
| 22                       | $\pm 20\%$ | 100                             | 0.085                 | 2.6            | 2.7            |
| 33                       | $\pm 20\%$ | 100                             | 0.10                  | 2.0            | 2.1            |
| 47                       | $\pm 20\%$ | 100                             | 0.14                  | 1.6            | 1.8            |
| 68                       | $\pm 20\%$ | 100                             | 0.20                  | 1.4            | 1.5            |
| 100                      | $\pm 20\%$ | 100                             | 0.28                  | 1.2            | 1.3            |
| 150                      | $\pm 20\%$ | 100                             | 0.40                  | 1.0            | 1.0            |
| 220                      | $\pm 20\%$ | 100                             | 0.61                  | 0.8            | 0.8            |
| 330                      | $\pm 20\%$ | 100                             | 1.02                  | 0.6            | 0.6            |
| 470                      | $\pm 20\%$ | 100                             | 1.27                  | 0.5            | 0.5            |
| 680                      | $\pm 20\%$ | 100                             | 2.02                  | 0.4            | 0.4            |
| 1000                     | $\pm 20\%$ | 100                             | 3.00                  | 0.3            | 0.3            |

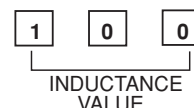
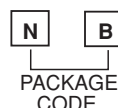
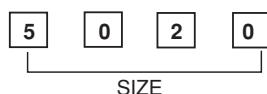
Inductance drop = 10% typ. at Isat

 $\Delta T = 15^\circ\text{C}$  typ. at Irms**DIMENSIONS** in inches [millimeters]

| A (Max.) | B (Max.) | D (Max.) | E      | F      | G      | H      | I      | J      |
|----------|----------|----------|--------|--------|--------|--------|--------|--------|
| 0.510    | 0.370    | 0.205    | 0.100  | 0.100  | 0.300  | 0.115  | 0.290  | 0.110  |
| [12.95]  | [9.40]   | [5.21]   | [2.54] | [2.54] | [7.62] | [2.92] | [7.37] | [2.79] |

**DESCRIPTION**

|          |                  |                      |
|----------|------------------|----------------------|
| IDC-5020 | 10 $\mu$ H       | $\pm 20\%$           |
| MODEL    | INDUCTANCE VALUE | INDUCTANCE TOLERANCE |

**SAP PART NUMBERING GUIDELINES (INTERNAL)**

See the end of this data book for conversion tables

www.DataSheet4U.com