

Vishay Dale

# **Monolithic Chip Inductors**



#### **MECHANICAL SPECIFICATIONS**

Solderability: 90 % coverage after 5 s dip in 235 °C solder following 60 s preheat at 120 °C to 150 °C and type R flux dip Resistance to Solder Heat: 10 s in 260 °C solder, after

preheat and flux per above Termination: 100 % Sn

Terminal Strength: 0.1 kg for 30 s

Beam Strength: 2.5 kg

**DESCRIPTION** ILSB-1206

3.3 µH

#### **FEATURES**

- · High reliability
- Surface mountable
- Magnetically self shielded

 Nickel barrier plating virtually eliminates silver migration

Material categorization: for definitions of

HALOGEN FREE

compliance please see www.vishay.com/doc?99912

#### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature: -55 °C to +125 °C

Thermal Shock: -40 °C to +85 °C

Humidity: 90 % RH at 40 °C, 1000 h at full rated current

Load Life: 85 °C for 1000 h at full rated current

| STANDARD ELECTRICAL SPECIFICATIONS |      |                                  |                     |      |             |             |                     |  |  |  |  |
|------------------------------------|------|----------------------------------|---------------------|------|-------------|-------------|---------------------|--|--|--|--|
| INDUCTANCE                         |      | THICKNESS "D"                    | TEST FREQ.<br>(MHz) | Q    | SRF<br>MIN. | DCR<br>MAX. | RATED<br>DC CURRENT |  |  |  |  |
| (µH)                               | TOL. | (INCHES [mm])                    | L AND Q             | MIN. | (MHz)       | (Ω)         | (mA)                |  |  |  |  |
| 0.047                              | 20 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 50                  | 20   | 368         | 0.15        | 300                 |  |  |  |  |
| 0.068                              | 20 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 50                  | 20   | 322         | 0.25        | 300                 |  |  |  |  |
| 0.10                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 271         | 0.25        | 250                 |  |  |  |  |
| 0.12                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 253         | 0.30        | 250                 |  |  |  |  |
| 0.15                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 230         | 0.30        | 250                 |  |  |  |  |
| 0.18                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 213         | 0.40        | 250                 |  |  |  |  |
| 0.22                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 196         | 0.40        | 250                 |  |  |  |  |
| 0.27                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 173         | 0.50        | 250                 |  |  |  |  |
| 0.33                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 20   | 167         | 0.60        | 250                 |  |  |  |  |
| 0.39                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 25   | 156         | 0.50        | 200                 |  |  |  |  |
| 0.47                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 25   | 144         | 0.60        | 200                 |  |  |  |  |
| 0.68                               | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 25                  | 25   | 121         | 0.80        | 150                 |  |  |  |  |
| 1.0                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 87          | 0.40        | 100                 |  |  |  |  |
| 1.2                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 75          | 0.50        | 100                 |  |  |  |  |
| 1.5                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 69          | 0.50        | 50                  |  |  |  |  |
| 1.8                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 64          | 0.50        | 50                  |  |  |  |  |
| 2.2                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 58          | 0.50        | 50                  |  |  |  |  |
| 3.3                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 48          | 0.70        | 50                  |  |  |  |  |
| 3.9                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 44          | 0.80        | 50                  |  |  |  |  |
| 4.7                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 10                  | 45   | 41          | 0.90        | 50                  |  |  |  |  |
| 5.6                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 4                   | 45   | 37          | 0.70        | 25                  |  |  |  |  |
| 6.8                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 4                   | 45   | 34          | 0.80        | 25                  |  |  |  |  |
| 8.2                                | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 4                   | 45   | 30          | 0.90        | 25                  |  |  |  |  |
| 10                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 2                   | 45   | 28          | 1.00        | 25                  |  |  |  |  |
| 12                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 2                   | 45   | 26          | 1.05        | 15                  |  |  |  |  |
| 15                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 1                   | 45   | 22          | 0.70        | 5                   |  |  |  |  |
| 18                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 1                   | 45   | 21          | 0.70        | 5                   |  |  |  |  |
| 22                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 1                   | 35   | 19          | 0.90        | 5                   |  |  |  |  |
| 27                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 1                   | 35   | 17          | 0.90        | 5                   |  |  |  |  |
| 33                                 | 10 % | $0.043 \pm 0.012 [1.10 \pm 0.3]$ | 1                   | 35   | 15          | 1.05        | 5                   |  |  |  |  |

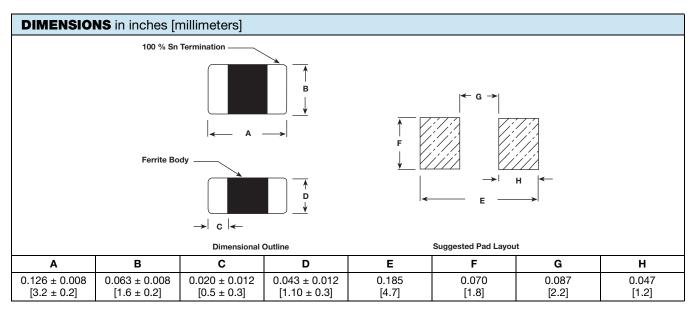
| MODEL       | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FF    | REE STANDARD |
|-------------|------------------|----------------------|--------------|------------------------|--------------|
| GLOBAL PART | NUMBER           |                      |              |                        |              |
| PRODUC      | S B 1            | 2 0 6<br>SIZE        | PACKAGE CODE | 3 R 3 INDUCTANCE VALUE | TOL.         |

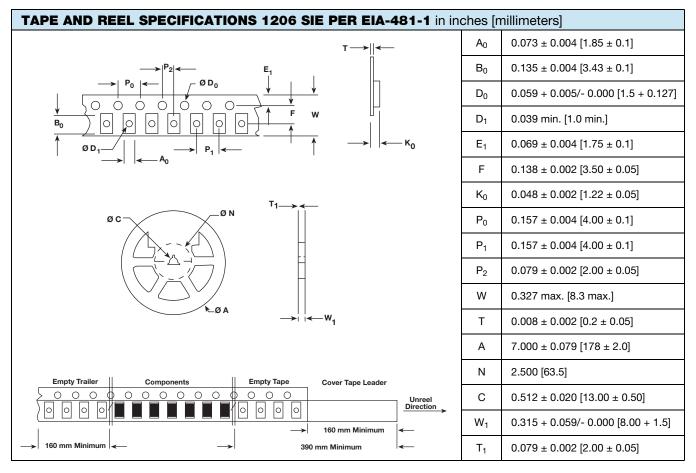
ER

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± 10 %









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