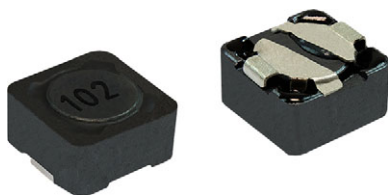


## Ferrite Power Inductor, Shielded Drum Core



### LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

### ELECTRICAL SPECIFICATIONS

#### Operating temperature:

-40 °C to +105 °C (temperature rise included)

#### Resistance to solder heat:

255 °C for 10 s (2 times max. through reflow)

### FEATURES

- 7.8 mm x 7.8 mm x 5.0 mm max. SMD package
- Shielded drum core ferrite construction to reduce leakage flux
- Inductance range: 1.0  $\mu$ H to 470  $\mu$ H
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### APPLICATIONS

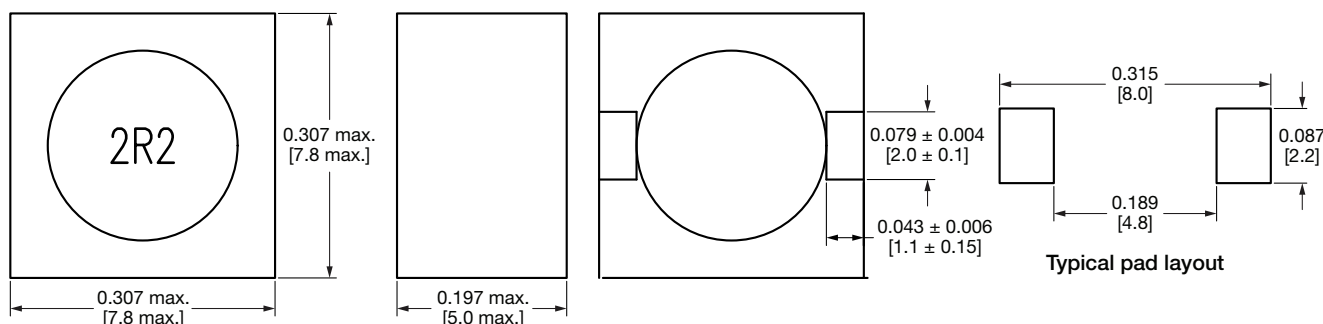
- DC/DC power supplies
- Noise suppression and filtering

### STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER      | L <sub>0</sub> INDUCTANCE<br>( $\mu$ H) | INDUCTANCE<br>TOLERANCE<br>(%) | DCR MAX.<br>(m $\Omega$ ) | HEAT RATING CURRENT<br>DC TYP.<br>(A) <sup>(1)</sup> | SATURATION CURRENT<br>DC TYP.<br>(A) <sup>(2)</sup> |
|------------------|-----------------------------------------|--------------------------------|---------------------------|------------------------------------------------------|-----------------------------------------------------|
| IFDC3030EZER1R0N | 1.0                                     | 30                             | 13                        | 9.00                                                 | 9.00                                                |
| IFDC3030EZER1R5N | 1.5                                     | 30                             | 14.5                      | 7.60                                                 | 7.60                                                |
| IFDC3030EZER2R2M | 2.2                                     | 20                             | 18                        | 6.50                                                 | 6.50                                                |
| IFDC3030EZER3R3M | 3.3                                     | 20                             | 24                        | 5.60                                                 | 5.60                                                |
| IFDC3030EZER3R6M | 3.6                                     | 20                             | 26                        | 5.00                                                 | 5.00                                                |
| IFDC3030EZER4R7M | 4.7                                     | 20                             | 30                        | 4.40                                                 | 4.40                                                |
| IFDC3030EZER6R8M | 6.8                                     | 20                             | 41                        | 3.00                                                 | 3.00                                                |
| IFDC3030EZER8R2M | 8.2                                     | 20                             | 48                        | 2.90                                                 | 2.90                                                |
| IFDC3030EZER100M | 10                                      | 20                             | 49                        | 1.84                                                 | 1.84                                                |
| IFDC3030EZER120M | 12                                      | 20                             | 58                        | 1.71                                                 | 1.71                                                |
| IFDC3030EZER150M | 15                                      | 20                             | 81                        | 1.47                                                 | 1.47                                                |
| IFDC3030EZER180M | 18                                      | 20                             | 91                        | 1.31                                                 | 1.31                                                |
| IFDC3030EZER220M | 22                                      | 20                             | 110                       | 1.23                                                 | 1.23                                                |
| IFDC3030EZER270M | 27                                      | 20                             | 150                       | 1.12                                                 | 1.12                                                |
| IFDC3030EZER330M | 33                                      | 20                             | 170                       | 0.96                                                 | 0.96                                                |
| IFDC3030EZER390M | 39                                      | 20                             | 230                       | 0.91                                                 | 0.91                                                |
| IFDC3030EZER470M | 47                                      | 20                             | 260                       | 0.88                                                 | 0.88                                                |
| IFDC3030EZER560M | 56                                      | 20                             | 350                       | 0.75                                                 | 0.75                                                |
| IFDC3030EZER680M | 68                                      | 20                             | 380                       | 0.69                                                 | 0.69                                                |
| IFDC3030EZER101M | 100                                     | 20                             | 610                       | 0.60                                                 | 0.60                                                |
| IFDC3030EZER121M | 120                                     | 20                             | 660                       | 0.52                                                 | 0.52                                                |
| IFDC3030EZER151M | 150                                     | 20                             | 880                       | 0.46                                                 | 0.46                                                |
| IFDC3030EZER181M | 180                                     | 20                             | 980                       | 0.42                                                 | 0.42                                                |
| IFDC3030EZER221M | 220                                     | 20                             | 1170                      | 0.36                                                 | 0.36                                                |
| IFDC3030EZER271M | 270                                     | 20                             | 1640                      | 0.34                                                 | 0.34                                                |
| IFDC3030EZER331M | 330                                     | 20                             | 1860                      | 0.32                                                 | 0.32                                                |
| IFDC3030EZER391M | 390                                     | 20                             | 2850                      | 0.29                                                 | 0.29                                                |
| IFDC3030EZER471M | 470                                     | 20                             | 3010                      | 0.36                                                 | 0.36                                                |

#### Notes

- All test data is referenced to 25 °C ambient
- Test condition: 100 kHz, 0.3 V for 8.2  $\mu$ H and below, and 1 kHz, 0.3 V for 10  $\mu$ H and above
- Storage condition: -40 °C to +105 °C (on board); and -10 °C to +40 °C and < 70 % RH (in component packaging)
- (1) DC current (A) that will result in  $\Delta$ T no greater than 40 °C
- (2) DC current (A) that will result in L<sub>0</sub> drop no greater than 35 %

**DIMENSIONS** in inches [millimeters]

**DESCRIPTION**

|                   |                              |                              |              |                                |
|-------------------|------------------------------|------------------------------|--------------|--------------------------------|
| <b>IFDC3030EZ</b> | <b>2.2 <math>\mu</math>H</b> | <b><math>\pm 20\%</math></b> | <b>ER</b>    | <b>e3</b>                      |
| MODEL             | INDUCTANCE VALUE             | INDUCTANCE TOLERANCE         | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

**GLOBAL PART NUMBER**

|                |                    |                              |                                    |                                                                      |
|----------------|--------------------|------------------------------|------------------------------------|----------------------------------------------------------------------|
| <b>I F D C</b> | <b>3 0 3 0 E Z</b> | <b>E R</b>                   | <b>2 R 2</b>                       | <b>M</b>                                                             |
| PRODUCT FAMILY | SIZE               | PACKAGE CODE                 | INDUCTANCE VALUE                   | INDUCTANCE TOLERANCE                                                 |
|                |                    | <b>ER =</b><br>tape and reel | <b>2R2 = 2.2 <math>\mu</math>H</b> | <b>M = <math>\pm 20\%</math></b><br><b>N = <math>\pm 30\%</math></b> |



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