# Shielded, Low-Profile, SMD Ferrite Power Inductors


## FEATURES

- 4.0 mm x 4.0 mm x 1.8 mm max. SMD package
- Low profile inductors from 0.33 µH to 330 µH
- Wirewound ferrite core encapsulated with iron embedded epoxy for magnetic shielding
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

## LINKS TO ADDITIONAL RESOURCES

Product Page

## APPLICATIONS

- DC/DC power supplies
- Noise suppression and filtering
- Portable and hand held devices
- HDD and SSD storage

## STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER | $L_0$ INDUCTANCE (µH) | INDUCTANCE TOLERANCE (%) | DCR TYP. 25 °C (mΩ) | DCR MAX. 25 °C (mΩ) | HEAT RATING CURRENT DC TYP. $I_{DC}$ (A) (1) | SATURATION CURRENT DC TYP. $I_{SAT}$ (A) (2) | SRF MIN. (MHz) |
|---|---|---|---|---|---|---|---|
| IFSC1616AHERR33N01 | 0.33 | 30 | 12 | 16 | 4.7 | 8 | 230 |
| IFSC1616AHERR47N01 | 0.47 | 30 | 17 | 20 | 4 | 7.2 | 220 |
| IFSC1616AHER1R0N01 | 1 | 30 | 27 | 32 | 3.7 | 4.8 | 90 |
| IFSC1616AHER1R5N01 | 1.5 | 30 | 31 | 37 | 3.3 | 4.3 | 70 |
| IFSC1616AHER2R2M01 | 2.2 | 20 | 42 | 50 | 2.9 | 3.4 | 60 |
| IFSC1616AHER3R3M01 | 3.3 | 20 | 55 | 66 | 2.5 | 2.9 | 45 |
| IFSC1616AHER4R7M01 | 4.7 | 20 | 70 | 84 | 2.1 | 2.2 | 35 |
| IFSC1616AHER6R8M01 | 6.8 | 20 | 98 | 118 | 1.7 | 1.8 | 30 |
| IFSC1616AHER100M01 | 10 | 20 | 150 | 180 | 1.5 | 1.5 | 25 |
| IFSC1616AHER150M01 | 15 | 20 | 210 | 252 | 1.2 | 1.2 | 18 |
| IFSC1616AHER220M01 | 22 | 20 | 290 | 348 | 1 | 1.1 | 15 |
| IFSC1616AHER330M01 | 33 | 20 | 460 | 552 | 0.82 | 0.9 | 12 |
| IFSC1616AHER470M01 | 47 | 20 | 620 | 744 | 0.66 | 0.7 | 11 |
| IFSC1616AHER680M01 | 68 | 20 | 810 | 972 | 0.6 | 0.62 | 7.1 |
| IFSC1616AHER101M01 | 100 | 20 | 1200 | 1560 | 0.47 | 0.57 | 5.2 |
| IFSC1616AHER151M01 | 150 | 20 | 2600 | 3120 | 0.33 | 0.47 | 5.1 |
| IFSC1616AHER221M01 | 220 | 20 | 3200 | 3840 | 0.29 | 0.38 | 4.2 |
| IFSC1616AHER331M01 | 330 | 20 | 4900 | 5880 | 0.23 | 0.31 | 3.2 |

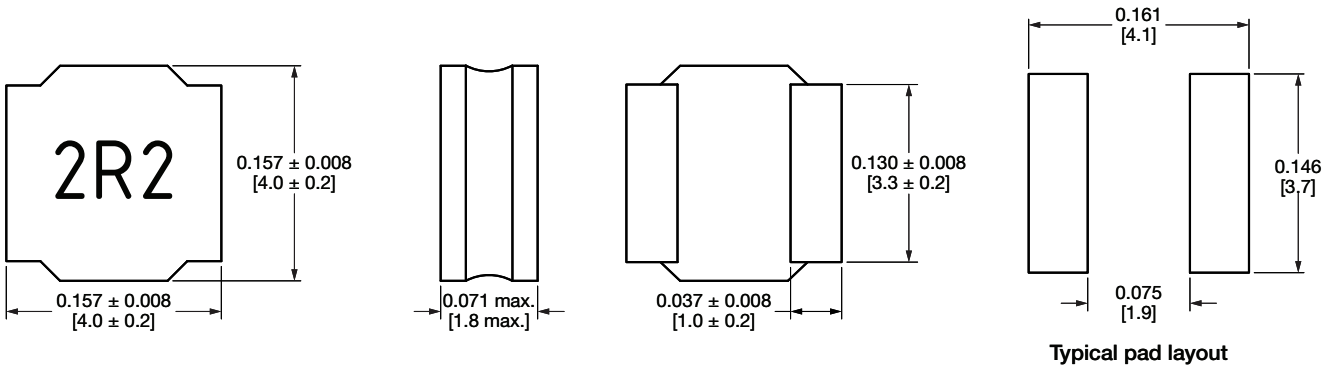
**Notes**

- All test data is referenced to 25 °C ambient
- Test condition: 100 kHz, 1 V
- Operating temperature range -40 °C to +125 °C
- Resistance to solder heat: 260 °C for 5 s (2 times max. through reflow)

(1) DC current (A) that will cause an approximate ΔT of 40 °C

(2) DC current (A) that will cause $L_0$ to drop approximately 30 %

## DIMENSIONS in inches [millimeters]




Typical pad layout

## DESCRIPTION

| IFSC1616AH-01 | 2.2 µH | ± 30 % | ER | e3 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

| I F S C | 1 6 1 6 A H | E R | 2 R 2 | M | 0 1 |
|---|---|---|---|---|---|
| PRODUCT FAMILY | SIZE | PACKAGE CODE | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | SERIES |
| | | **ER** = tape and reel | **2R2** = 2.2 µH | **M** = ± 20 %<br>**N** = ± 30 % | |

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