

# **Excellent Integrated System Limited**

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Vishay/Dale IFSC1111AZER1R5M01

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**Distributor of Vishay/Dale: Excellent Integrated System Limited** Datasheet of IFSC1111AZER1R5M01 - FIXED IND 1.5UH 1.45A 75 MOHM Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com



www.vishay.com

## IFSC-1111AZ-01

Vishay Dale

# Low Profile, High Current Inductors



| STANDARD ELECTRICAL SPECIFICATIONS   |                      |      |  |      |   |      |  |
|--|----------------------|------|--|------|---|------|--|
| L <sub>0</sub><br>INDUCTANCE<br>± 20 %<br>AT 100 kHz,<br>0.25 V, 0 A<br>(µH) | DCR<br>25 °C<br>(mΩ) |      | HEAT<br>RATING<br>CURRENT<br>DC<br>I <sub>DC</sub><br>(A) <sup>(3)</sup> |      | SATURATION<br>CURRENT<br>DC<br>I <sub>SAT</sub><br>(A) <sup>(4)</sup> |      |  |
| (µr)   | TYP.                 | MAX. | TYP.   | MAX. | TYP.  | MAX. |  |
| 1.0  | 63                   | 76   | 2.60   | 2.34 | 2.90  | 2.60 |  |
| 1.5  | 65                   | 78   | 1.90   | 1.71 | 1.80  | 1.62 |  |
| 2.2  | 89                   | 107  | 1.70   | 1.53 | 1.60  | 1.44 |  |
| 3.3  | 109                  | 131  | 1.55   | 1.40 | 1.25  | 1.13 |  |
| 4.7  | 166                  | 199  | 1.30   | 1.17 | 1.00  | 0.90 |  |
| 6.8  | 249                  | 299  | 1.05   | 0.95 | 0.85  | 0.75 |  |
| 10.0   | 365                  | 438  | 0.85   | 0.77 | 0.75  | 0.68 |  |
| 15.0   | 672                  | 807  | 0.72   | 0.64 | 0.58  | 0.52 |  |
| 22.0   | 708                  | 850  | 0.60   | 0.55 | 0.47  | 0.43 |  |
| 33.0   | 1360                 | 1632 | 0.50   | 0.45 | 0.38  | 0.34 |  |
| 47.0   | 1750                 | 2275 | 0.30   | 0.27 | 0.33  | 0.30 |  |

#### Notes

- <sup>(1)</sup> All test data is referenced to 25 °C ambient
- <sup>(2)</sup> Operating temperature range -55 °C to +125 °C
- $^{(3)}$  DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- $^{(4)}\,$  DC current (A) that will cause  $L_0$  to drop approximately 30 %
- (5) The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

#### **FEATURES**

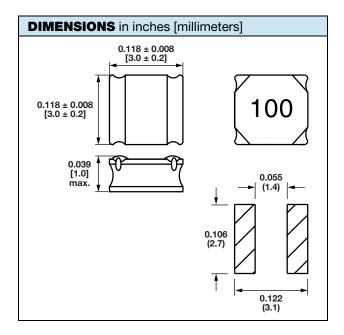
- Shielded construction
- Frequency range up to 5.0 MHz
- Handles high transient current spikes without COMPLIANT saturation HALOGEN



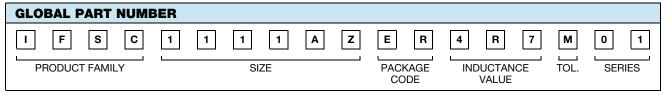
• Material categorization: for definitions of FREE compliance please see www.vishay.com/doc?99912

#### **APPLICATIONS**

- PDA/notebook/desktop/server applications
- High current POL converters
- · Low profile, high current power supplies
- · Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for field programmable gate array (FPGA)



| DESCRIPTION    |                  |                      |              |  |  |  |  |  |
|----------------|------------------|----------------------|--------------|--|--|--|--|--|
| IFSC-1111AZ-01 | 4.7 μH           | ± 20 %               | ER           | e3   |  |  |  |  |
| MODEL          | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD |  |  |  |  |
|                |                  |                      |              |  |  |  |  |  |



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1 For technical questions, contact: magnetics@vishay.com

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