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Vishay Dale

# **High Current Through-Hole Inductor, High Temperature**



#### **FEATURES**

- High temperature, up to 155 °C
- · Shielded construction
- Frequency range up to 5.0 MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912">www.vishay.com/doc?99912</a>



AUTOMOTIVE GRADE

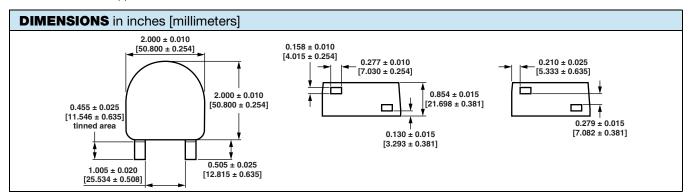
### **APPLICATIONS**

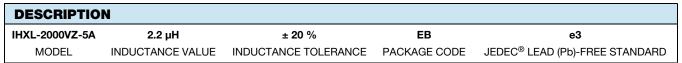
Automotive

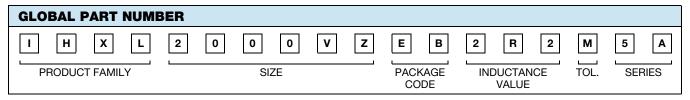
STANDARD ELECTRICAL SPECIFICATIONS						
L <sub>0</sub> INDUCTANCE ± 20 % AT 500 kHz, 2 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	HEAT RATING CURRENT DC TYP. (A) <sup>(4)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(5)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(6)</sup>
2.2	0.21	0.23	125	187	190	280

#### Notes

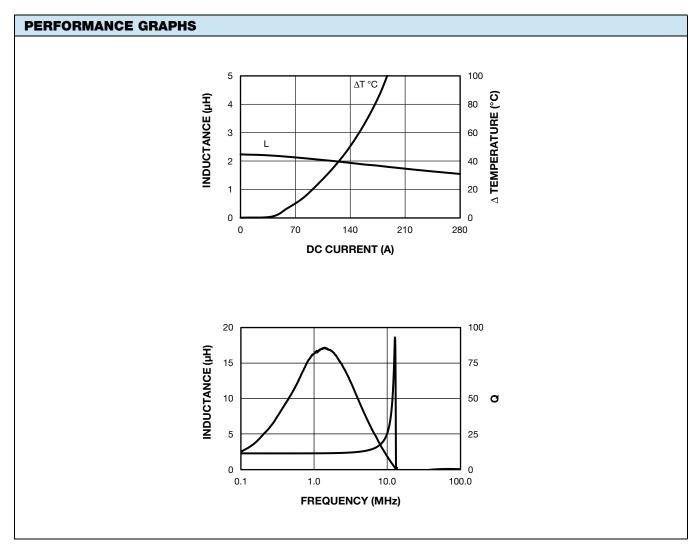
- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +155 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- $^{(4)}\,$  DC current (A) that will cause an approximate  $\Delta T$  of 100 °C
- 5) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
- (6) DC current (A) that will cause L<sub>0</sub> to drop approximately 30 %
- (7) The part temperature (ambient + temp. rise) should not exceed 155 °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







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### INTERACTIVE 3D MODEL

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- To enable the 3D content, go to "Options" in the yellow popup bar and click on "Trust this document one time only". Click then on the "?" box and the rotating part will be shown.
- For a long term solution, you can also do following:
  - Go to "Edit" → "Preferences" → "3D & Multimedia" → and mark "Enable playing of 3D content" → confirm with "OK"

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