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Vishay Dale

# IHLP® Automotive Inductors, High Temperature (155 °C) Series





#### **DESIGN SUPPORT TOOLS** click logo to get started



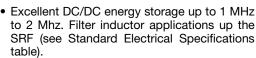
STANDARD ELECTRICAL SPECIFICATIONS					
L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) (2)	SRF TYP. (MHz)
0.22	3.95	4.23	18	11	190
0.33	4.9	5.34	16	9.8	117
0.47	6.02	6.44	14.5	8.7	94.8
0.68	9.1	9.74	11.3	8.2	77.7
1	11.5	12.1	10.8	8	60.7
1.5	18	19.8	7.9	7.1	49.2
2.2	24.7	26	6.6	6.3	39.8
3.3	44.0	47.0	5.3	5.5	33.4
4.7	72.8	78.3	4.1	3.7	23.8
6.8	104	111	3.2	2.2	18.8
10	132	138	2.8	1.6	15.9
15	195	208	2.4	1.6	14.1

#### Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- 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
- Rated operating voltage (across inductor) = 50 V
- DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- (2) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %

#### **FEATURES**

- High temperature, up to 155 °C
- Shielded construction



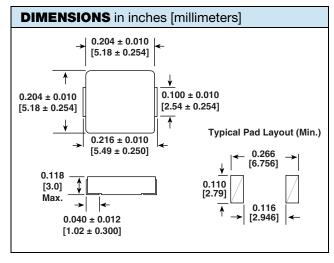


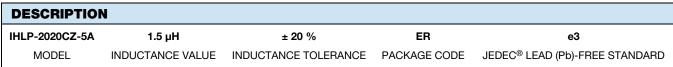
RoHS COMPLIANT

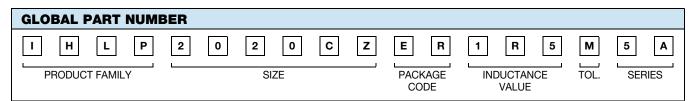
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- IHLP design. PATENT(S): <a href="https://www.vishay.com/patents">www.vishay.com/patents</a>
- Material categorization: for definitions of compliance please see <a href="https://www.vishav.com/doc?99912">www.vishav.com/doc?99912</a>

#### **APPLICATIONS**

- · Engine and transmission control units
- · Diesel injection drivers
- DC/DC converter for entertainment / navigation systems
- Noise suppression for motors: windshield wipers / power seats / power mirrors / heating and ventilation blower / HID lighting
- LED drivers



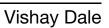




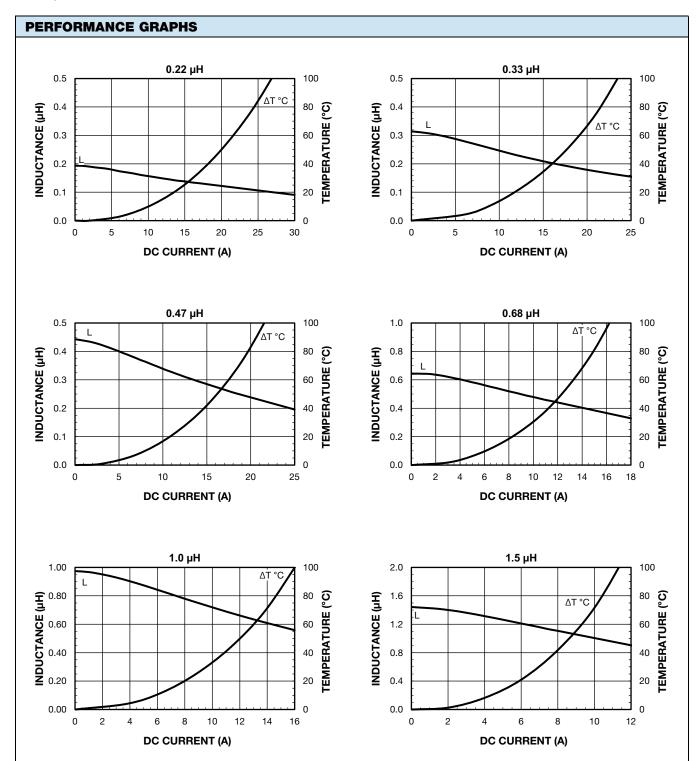
PATENT(S): www.vishay.com/patents

Revision: 29-Sep-17

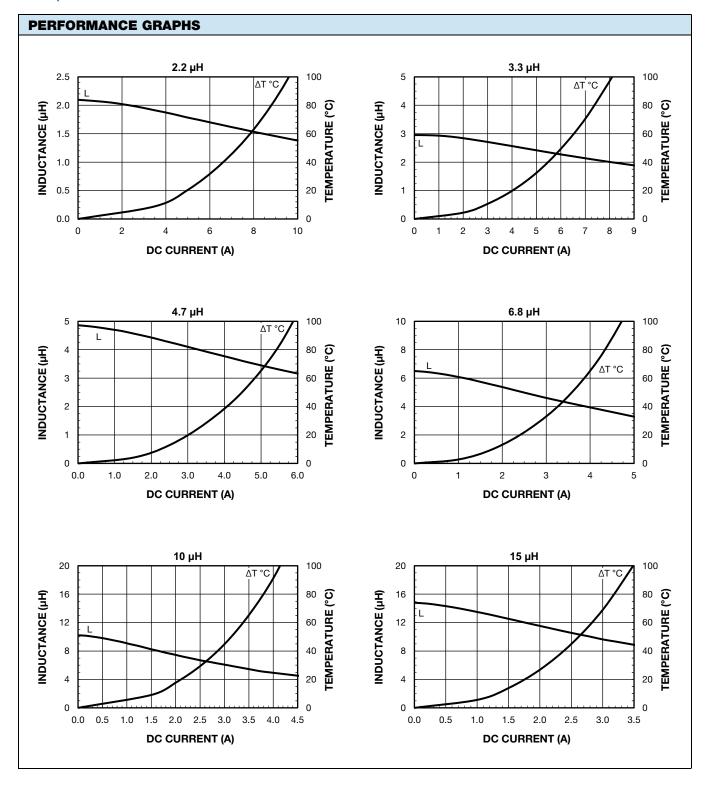
This Vishay product is protected by one or more United States and international patents.



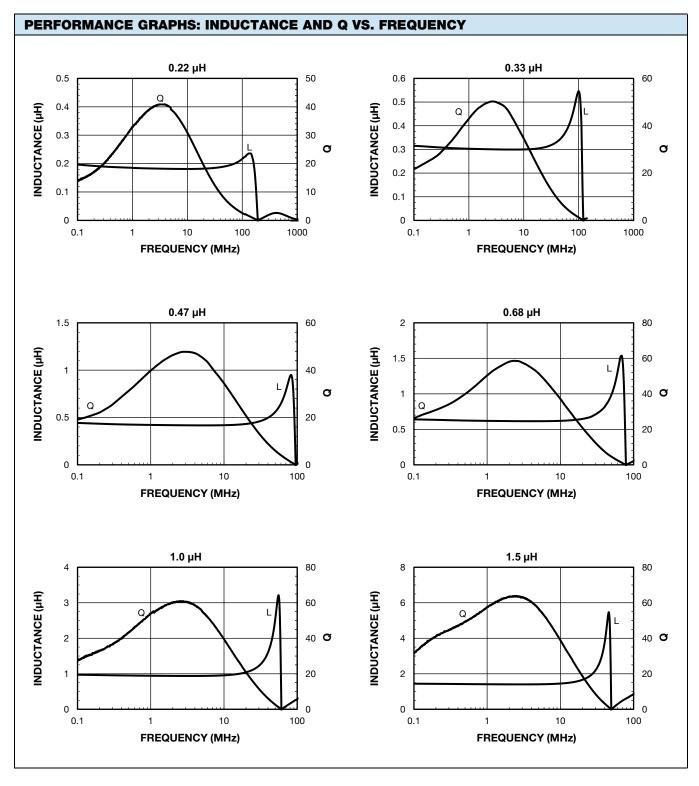




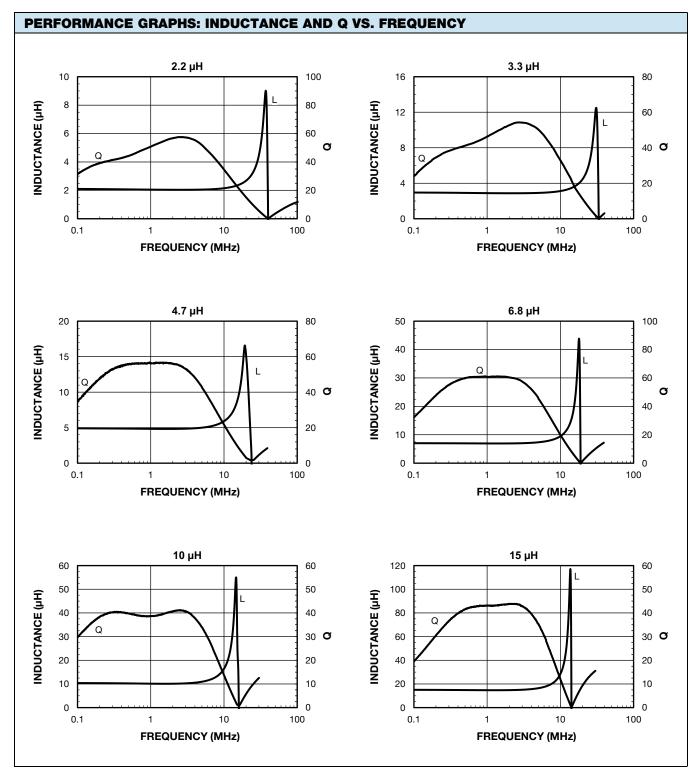














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