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Vishay Dale

# IHLP® Automotive Inductors, Low DCR 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)
1.0	7.6	8.0	12.5	9.5
2.2	15.7	16.5	9.0	7.0
3.3	24.8	26.0	7.0	6.5
4.7	31.8	33.4	6.0	4.0
6.8	44.6	46.8	5.5	4.0
8.2	52.3	54.9	5.0	4.0
10	67.8	71.2	4.0	3.5
22	128.9	135.0	2.9	2.5

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +125 °C
- 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
- Rated operating voltage (across inductor) = 50 V
- DC current (A) that will cause an approximate ΔT of 40 °C
- (2) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %

#### **FEATURES**

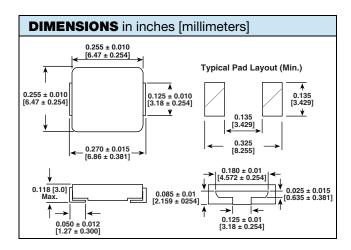
- · Shielded construction
- Frequency range up to 1.0 MHz
- Lowest DCR/µH, in this package size
- · Powered iron composition provides soft saturation
- · Handles high transient current spikes without
- RoHS COMPLIANT HALOGEN FREE

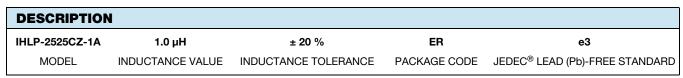
AUTOMOTIVE

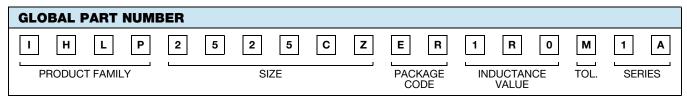
- hard saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- IHLP design. PATENT(S): <a href="https://www.vishav.com/patents">www.vishav.com/patents</a>
- · Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

#### **APPLICATIONS**

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



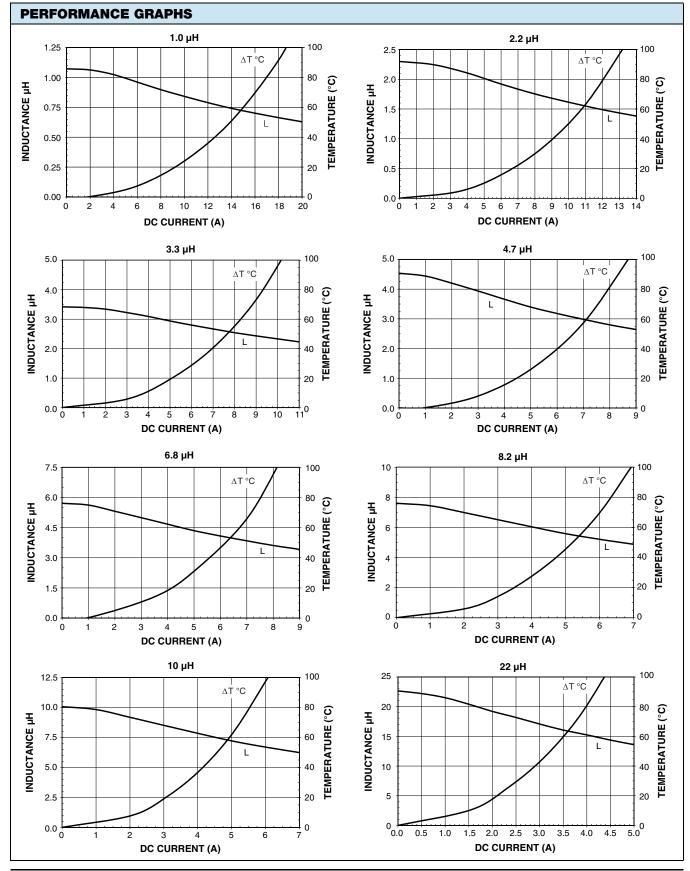




PATENT(S): www.vishay.com/patents

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