

Automotive Inductors, Ultra Low DCR, High Temperature (155 °C) Series



LINKS TO ADDITIONAL RESOURCES



STANDARD ELECTRICAL SPECIFICATIONS						
L ₀ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μ H)	DCR ± 5 % AT 25 °C (m Ω)		HEAT RATING CURRENT DC (A) ⁽¹⁾	SATURATION CURRENT DC (A)		SRF TYP. (MHz)
	TYP.	MAX.		TYP.	TYP. ⁽²⁾	
0.056	0.38	0.40	58	45	64	535
0.100	0.97	1.02	46	31	46	186

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

(1) DC current (A) that will cause an approximate ΔT of 40 °C
(2) DC current (A) that will cause L₀ to drop approximately 20 %
(3) DC current (A) that will cause L₀ to drop approximately 30 %

FEATURES

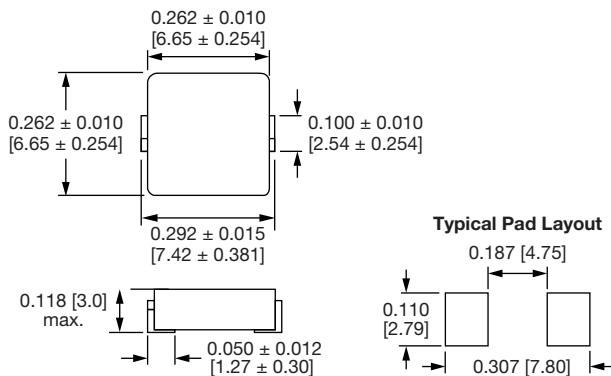
- High temperature rating, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 10 MHz. Filter inductor applications up the SRF (see Standard Electrical Specifications table)
- Lowest DCR/ μ H, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- IHSR design; PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(S-2008)

APPLICATIONS

- Engine and transmission control units
- Multiphase DC/DC converters for ADAS microprocessors
- DC/DC converters for entertainment / navigation systems
- Noise suppression for motors
- Windshield wipers, power seats, power mirrors, heating and ventilation blowers, HID lighting

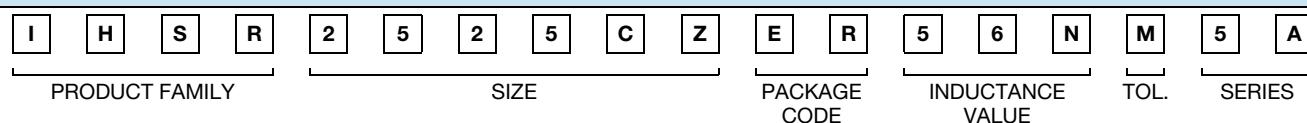
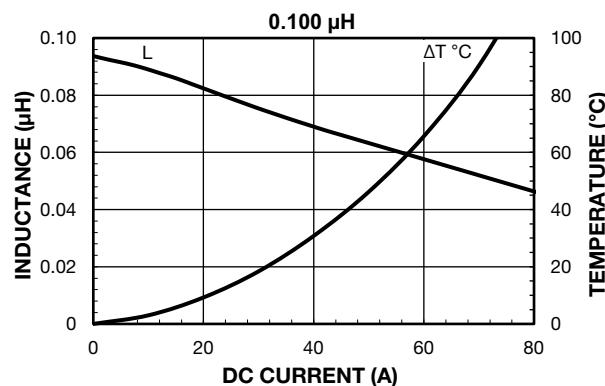
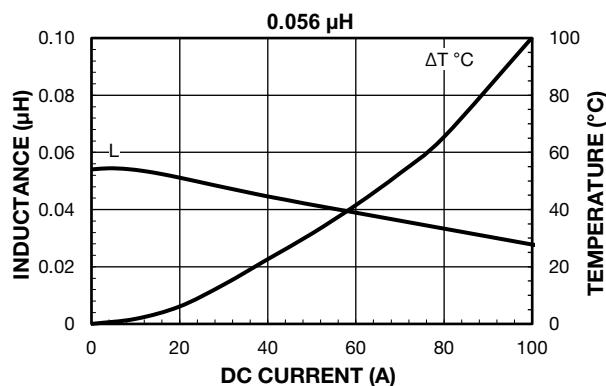
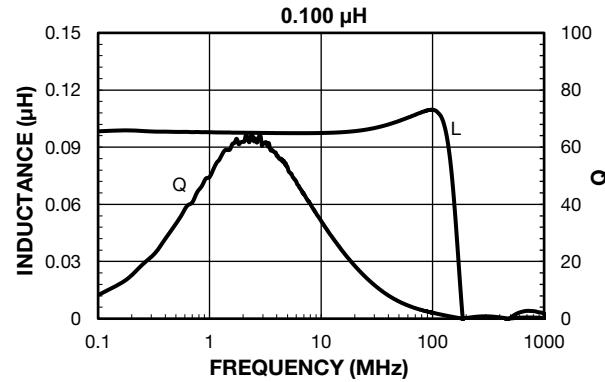
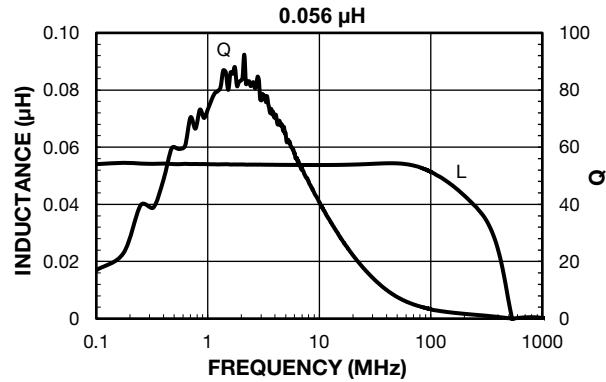
DIMENSIONS in inches [millimeters]


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

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

DESCRIPTION

MODEL	0.056 μ H	INDUCTANCE VALUE	$\pm 20\%$	INDUCTANCE TOLERANCE	ER	e3
					PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

PERFORMANCE GRAPHS

PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY


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