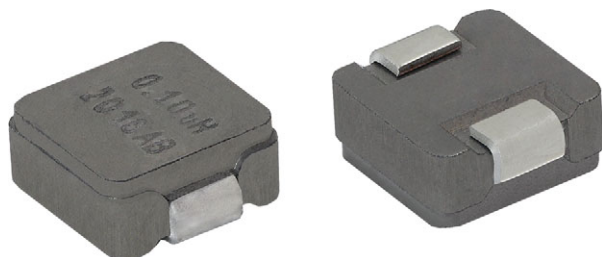


Commercial Inductors, Low Inductance Design, Ultra Low DCR, Options for High Temperature 155 °C or High Saturation Rating



FEATURES

- Size: 6.65 mm x 6.65 mm x 3.0 mm
- Core material options for high temperature or high saturation rating
- Magnetically shielded construction
- Ideal for high frequency switching converters with high current load demands
- Patented coil design achieves ultra low DCR and robust design
- Handles high transient in-rush currents without saturation
- 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
(5-2008)

LINKS TO ADDITIONAL RESOURCES



APPLICATIONS

- Multiphase DC/DC converters for microprocessors
- High current LC filters
- LiDAR boost inductor for laser diode with GaN FETs
- Energy storage inductor for high frequency, low voltage converters (12 V to 1 V)

STANDARD ELECTRICAL SPECIFICATIONS

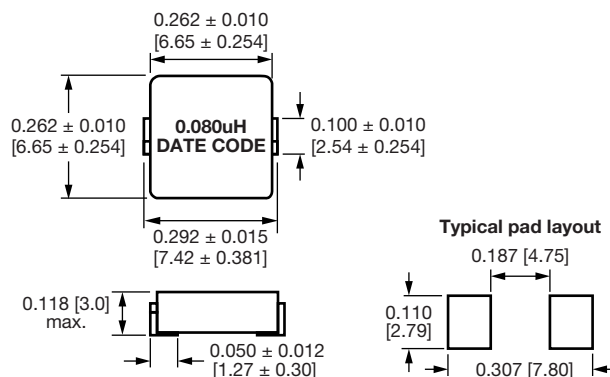
PART NUMBER	L ₀ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. AT 25 °C (mΩ)	DCR MAX. AT 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. ⁽²⁾ (A)		SRF TYP (MHz)
					20 % DROP	30 % DROP	
					BEST SATURATION		
IHSR2525CZER80NM01	0.080	0.62	0.65	45	62	87	315
HIGHEST TEMPERATURE RATING (155 °C)							
IHSR2525CZER56NM51	0.056	0.38	0.40	58	45	64	535
IHSR2525CZERR10M51	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 +125 °C (for -01 models) and up to +155 °C (for -51 models)
- ⁽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 % and 30 %, respectively

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

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

DIMENSIONS in inches [millimeters]

DESCRIPTION

IHSR2525CZ-01	0.080 μH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

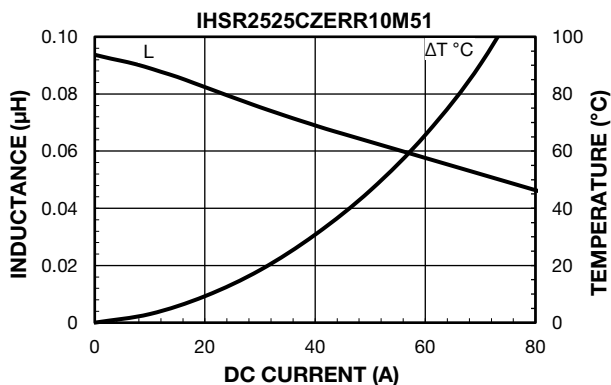
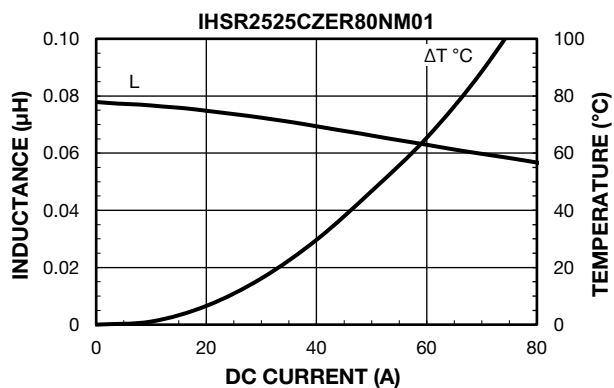
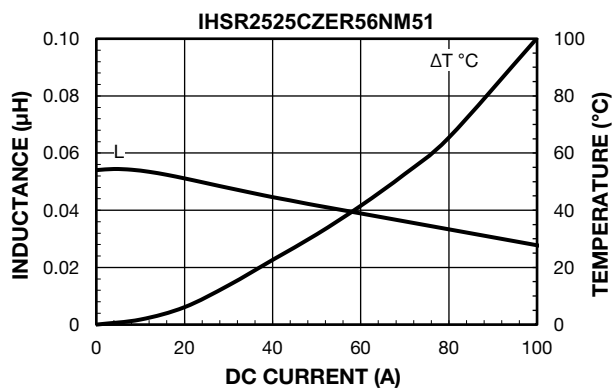
I H S R	2 5 2 5 C Z	E R	8 0 N	M	0 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		ER = tape and reel	80N = 0.080 μ H	M = ± 20 %	

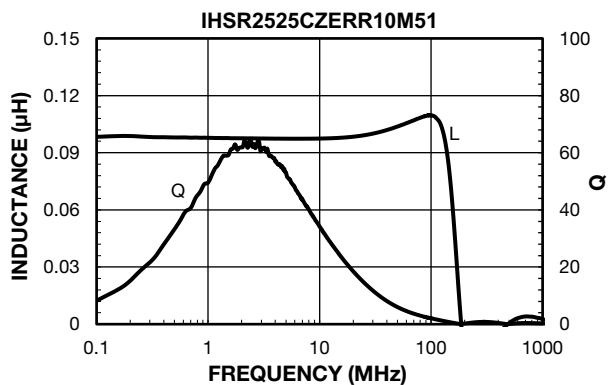
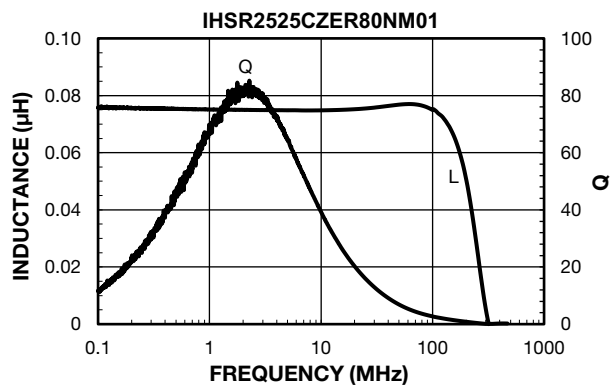
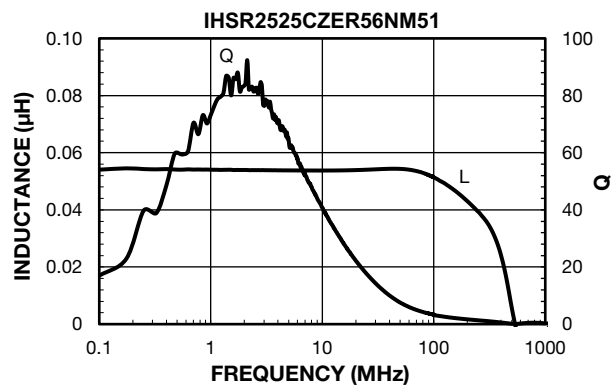
Note

- For additional packaging details see ["Packaging Methods"](#)



PERFORMANCE GRAPHS



PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY




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