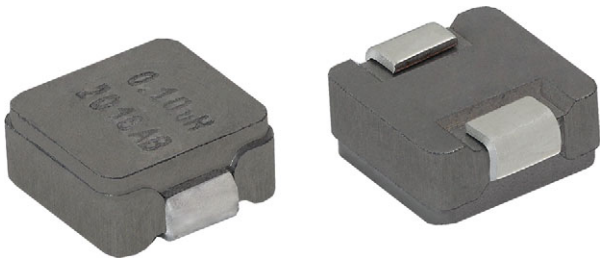
Automotive Inductors, Low Inductance Design, Ultra Low DCR, Options for High Temperature 155 °C or High Saturation Rating



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
- AEC-Q200 qualified
- IHSR design; PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

Product Page Design Tools

APPLICATIONS

- Multiphase DC/DC converters for ADAS 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) for automotive domain control units (DCU)

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							
IHSR2525CZER80NMA1	0.080	0.62	0.65	45	62	87	315
HIGHEST TEMPERATURE RATING (155 °C)							
IHSR2525CZER56NM5A	0.056	0.38	0.40	58	45	64	535
IHSR2525CZERR10M5A	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 -A1 models) and up to +155 °C (for -5A models)

(1) DC current (A) that will cause an approximate ΔT of 40 °C

(2) DC current (A) that will cause L_0 to drop approximately 20 % and 30 %, respectively

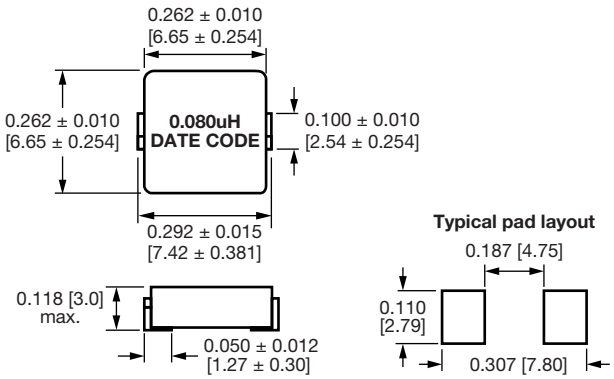
PATENT(S): www.vishay.com/patents

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

For technical questions, contact: magnetics@vishay.com

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DIMENSIONS in inches [millimeters]



DESCRIPTION

IHSR2525CZ-A1	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	A 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		ER = tape and reel	**80N** = 0.080 µH	**M** = ± 20 %	

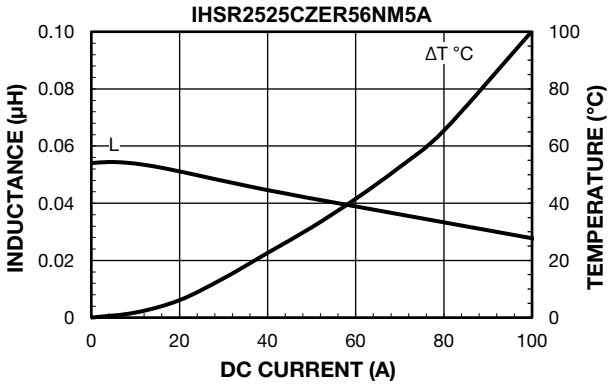
Note

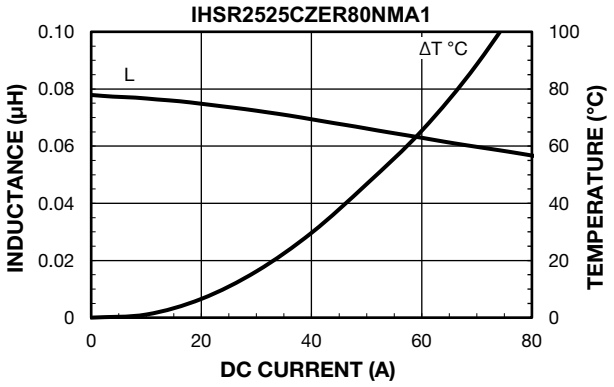
- For additional packaging details see "Packaging Methods"

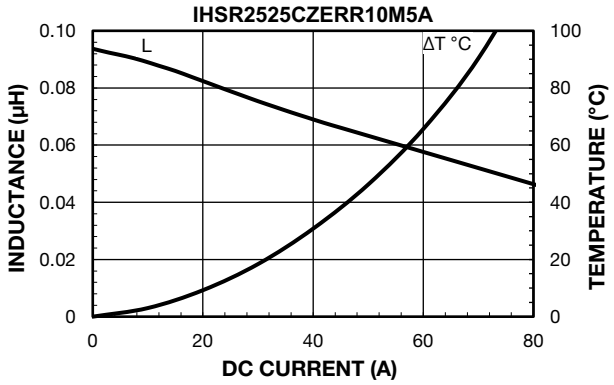
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PERFORMANCE GRAPHS



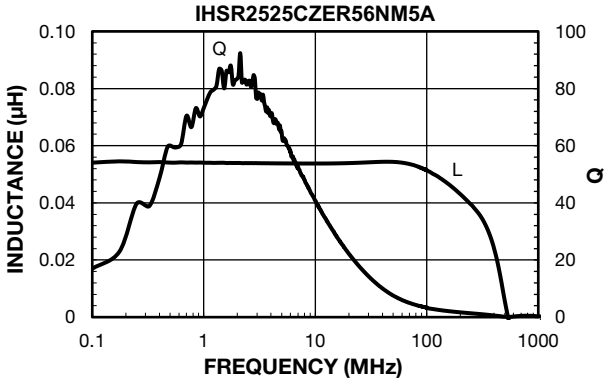


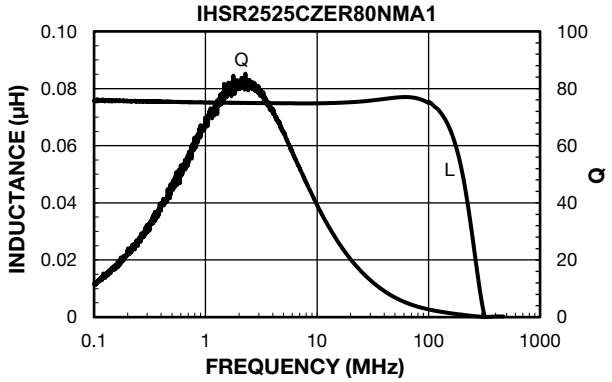


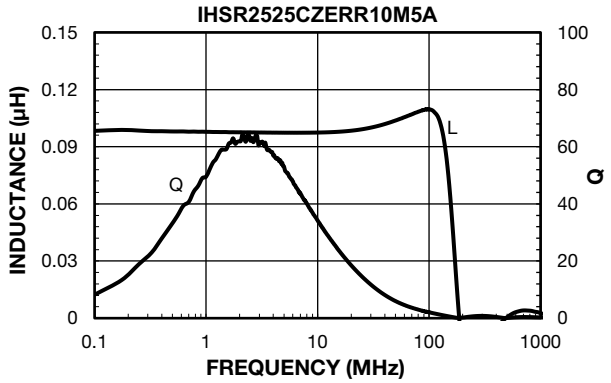
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