Automotive Inductors, High Temperature (155 °C) Series



FEATURES

- High temperature rating, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 5 MHz
- 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
- **Patent pending**
- 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

Calculators

APPLICATIONS

- High current load EMI filters (12 V / 140 A or 48 V / 140 A)
- LIDAR boost inductor for laser diode with GaN MOSFETs
- 48 V / 12 V (> 250 kHz; 5 kW) buck-boost inductor for multiphase converters (bi-directional)
- Excellent BLDC LC filter inductor up to 140 A (EPS; super chargers)
- Optimized filter and storage inductor for high ambient temperature applications up to 85 °C with operating 155 °C
- Excellent storage inductor up to 1 MHz switching frequency (low voltage 12 V to 5 V)
- EMI filter for 12 V / 48 V vacuum less braking (BLDC)

STANDARD ELECTRICAL SPECIFICATIONS

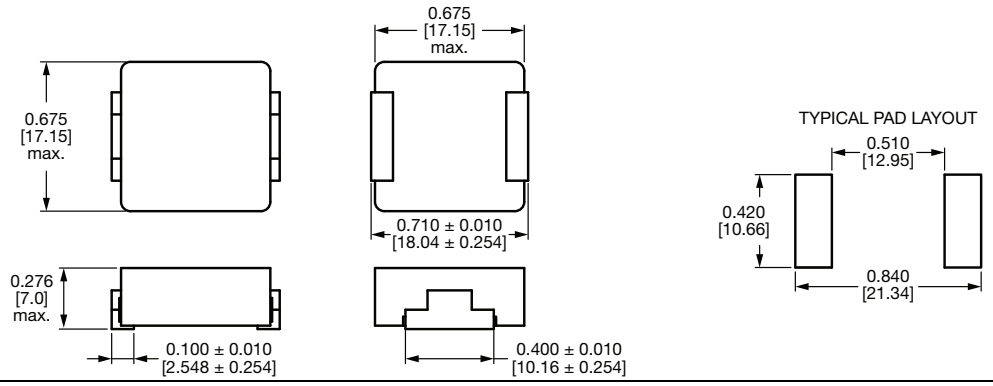
L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH)	DCR AT 25 °C (mΩ)	HEAT RATING CURRENT DC (A)		SATURATION CURRENT DC (A)	
	TYP.	TYP. (1)	TYP. (2)	TYP. (3)	TYP. (4)
0.22	0.24	100	141	107	155

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 an approximate ΔT of 80 °C
(3) DC current (A) that will cause L_0 to drop approximately 20 %
(4) DC current (A) that will cause L_0 to drop approximately 30 %

DIMENSIONS in inches [millimeters]



For technical questions, contact: magnetics@vishay.com

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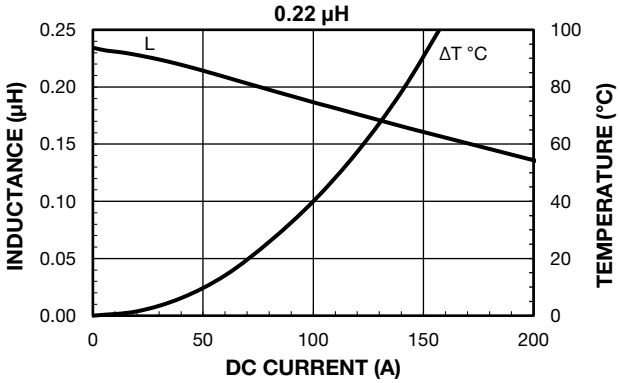
DESCRIPTION

IHSR-6767GZ-5A	0.12 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

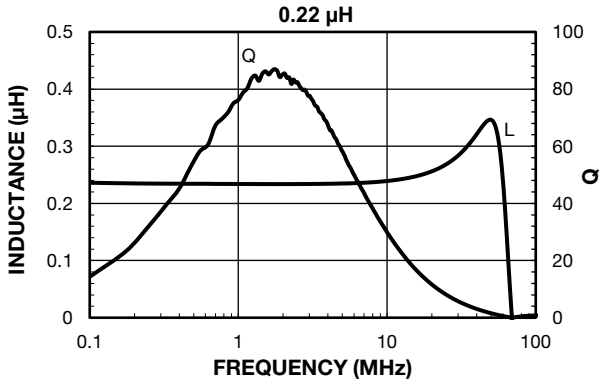
GLOBAL PART NUMBER

I	H	S	R	6	7	6	7	G	Z	E	R	R	1	2	M	5	A
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

PERFORMANCE GRAPHS



PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



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