Low Profile, High Current IHLP® Inductors

Manufactured under one or more of the following:
US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.
Several foreign patents, and other patents pending.

FEATURES

- High temperature rating, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 1 MHz to 2 Mhz. Filter inductor applications up the SRF (see Standard Electrical Specifications table).
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free
RoHS COMPLIANT
HALOGEN FREE
GREEN (5-2008)

APPLICATIONS

- PDA/notebook/desktop/server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

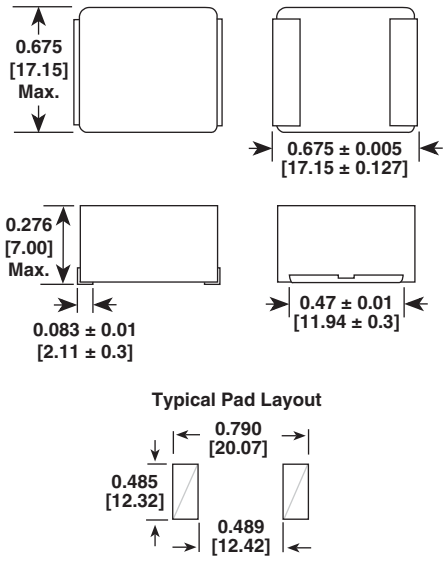
STANDARD ELECTRICAL SPECIFICATIONS

L_0 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) (3)	SATURATION CURRENT DC TYP. (A) (4)	SRF TYP. (MHz)
0.47	0.89	0.95	65.0	76.0	52.3
1.0	1.36	1.46	53.0	42.0	35.5
2.2	2.25	2.41	38.5	38.0	19.8
3.3	3.06	3.27	32.2	32.0	16.5
4.7	4.89	5.23	24.0	26.0	14.0
10.0	10.20	10.91	16.0	20.0	7.70
15.0	15.85	16.96	12.5	13.0	8.55
22.0	21.28	22.27	11.7	11.0	5.97
33.0	36.2	38.9	8.8	9.4	4.43
47.0	52.7	56.4	7.25	7.0	3.72

Notes

(1) All test data is referenced to 25 °C ambient
(2) Operating temperature range -55 °C to +155 °C
(3) DC current (A) that will cause an approximate ΔT of 40 °C
(4) DC current (A) that will cause L_0 to drop approximately 20 %
(5) 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.
(6) Maximum recommended operating voltage (across inductor) = 200 V

DIMENSIONS in inches [millimeters]



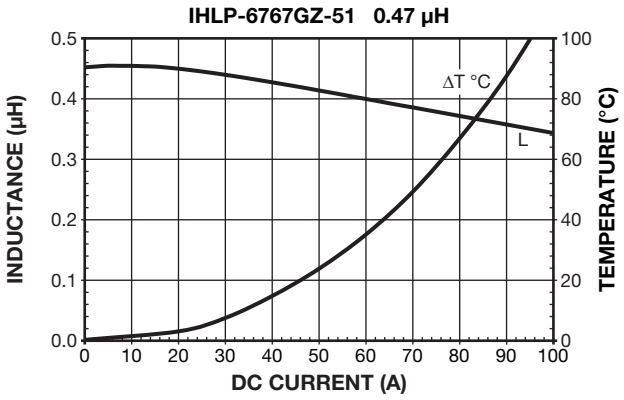
DESCRIPTION

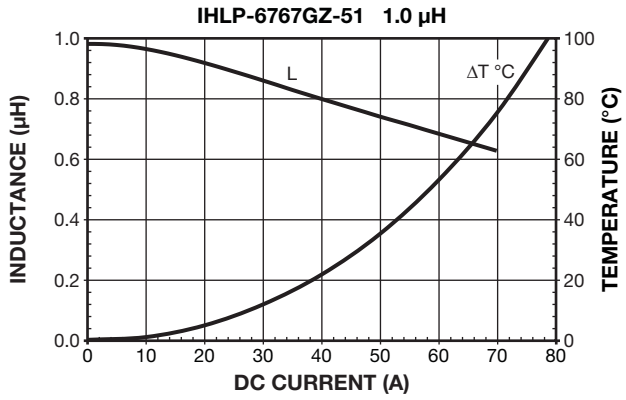
IHLP-6767GZ-51	2.2 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

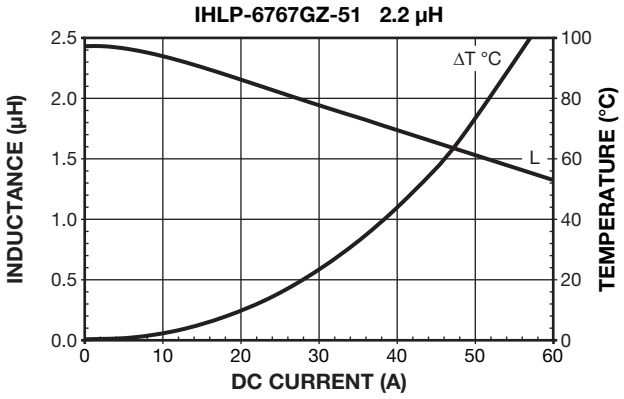
GLOBAL PART NUMBER

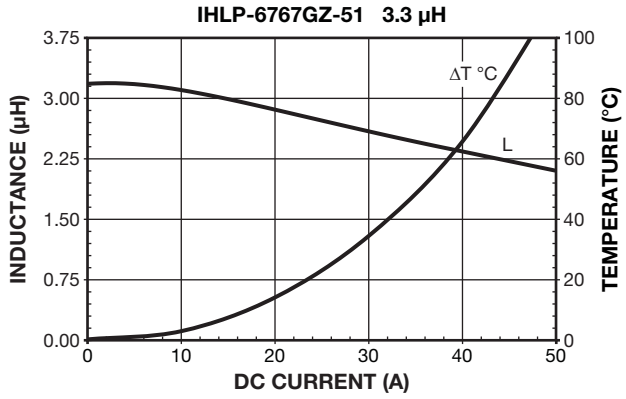
I	H	L	P	6	7	6	7	G	Z	E	R	2	R	2	M	5	1
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

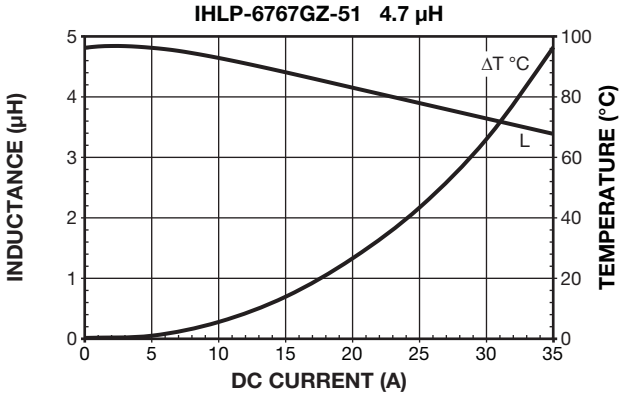
PERFORMANCE GRAPHS

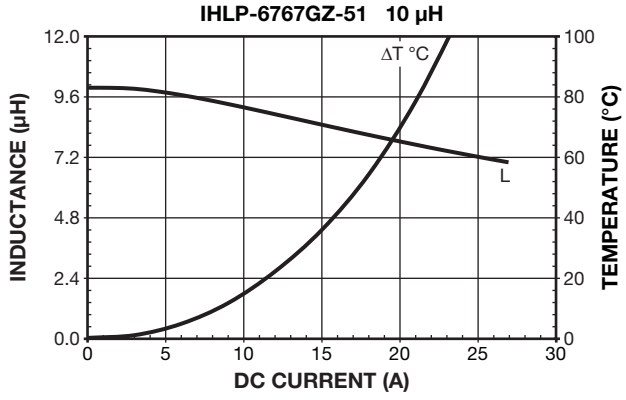












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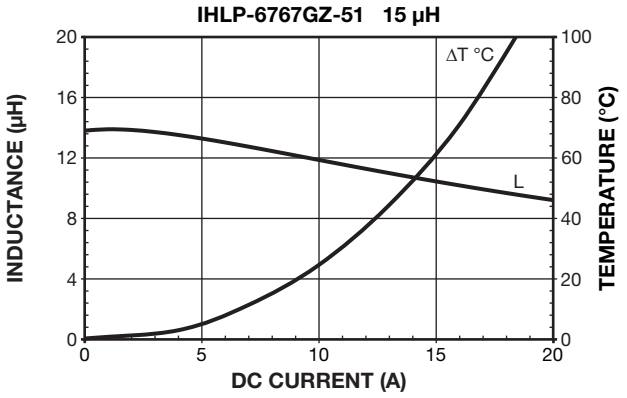
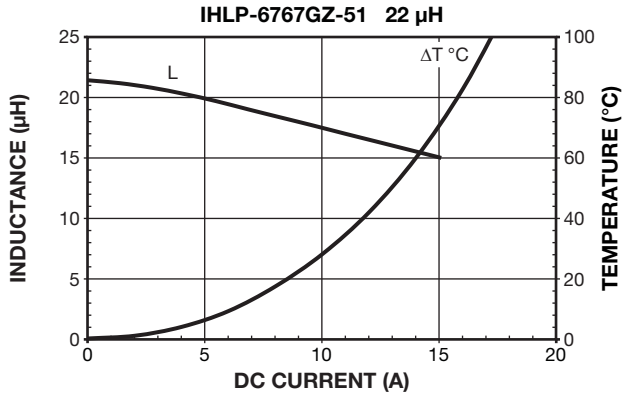
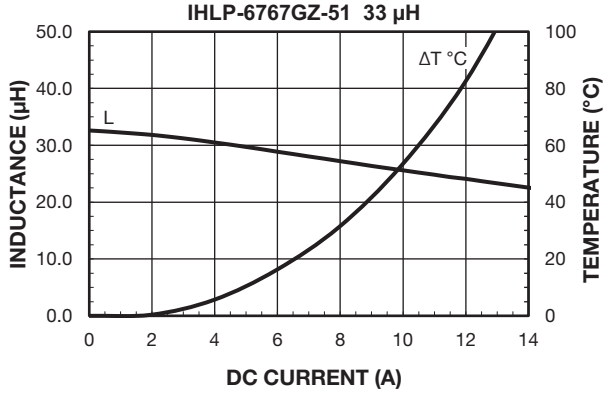
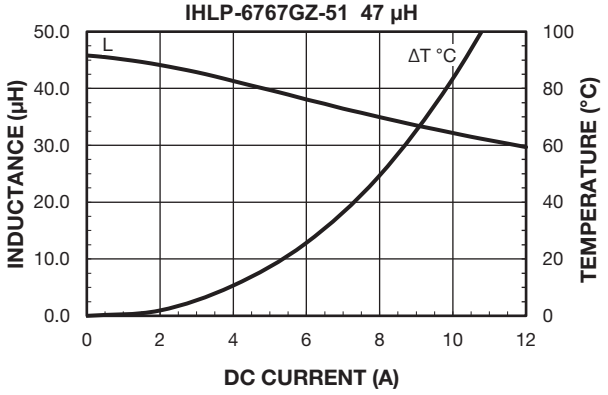
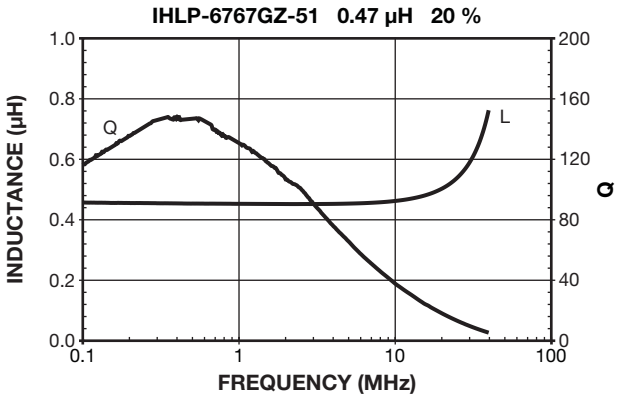


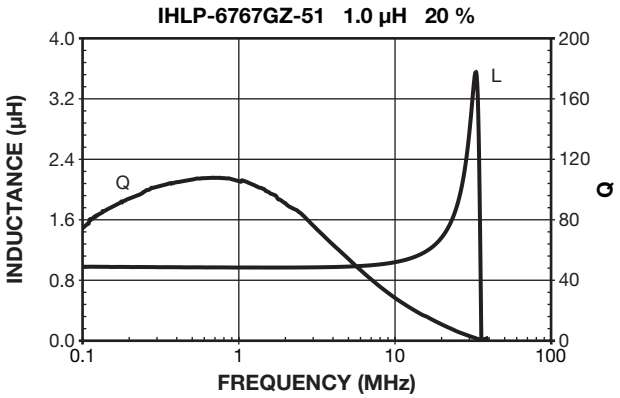


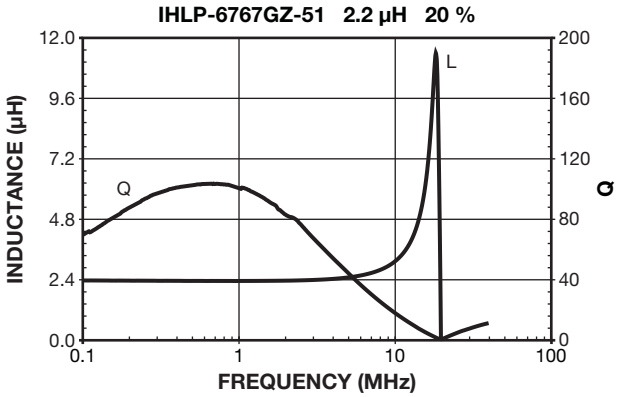


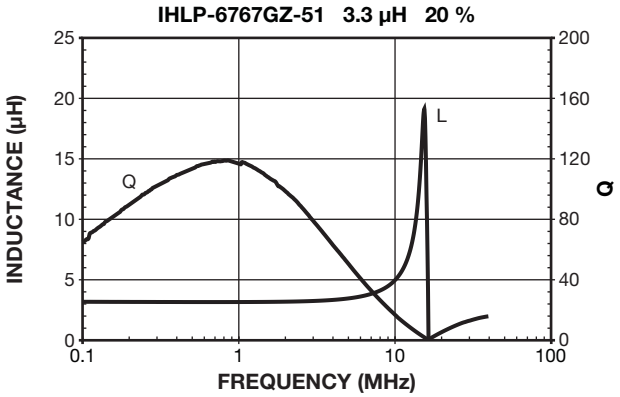


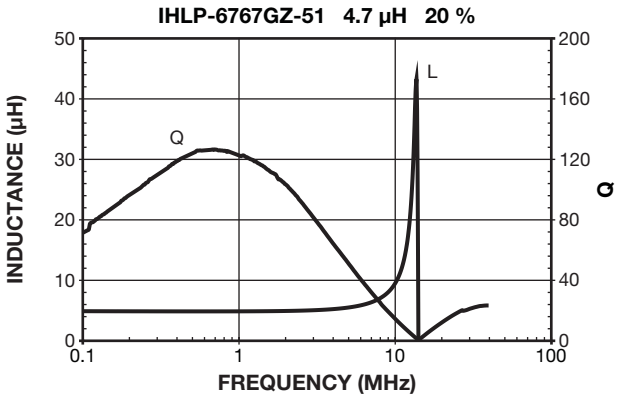
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY

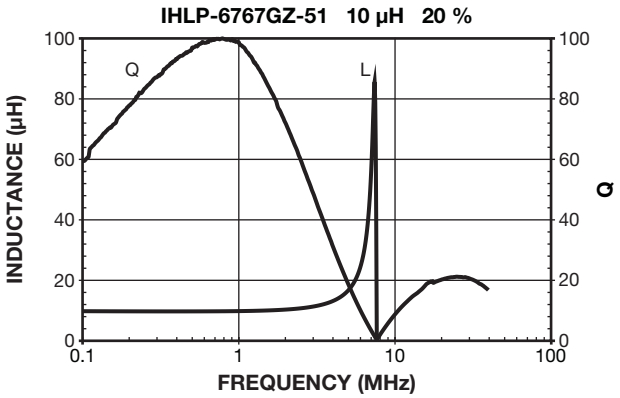












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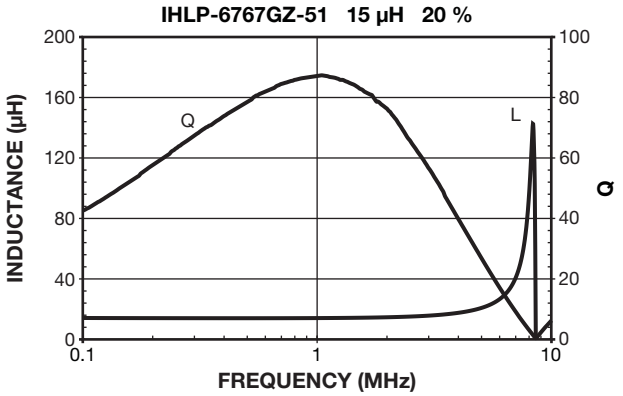

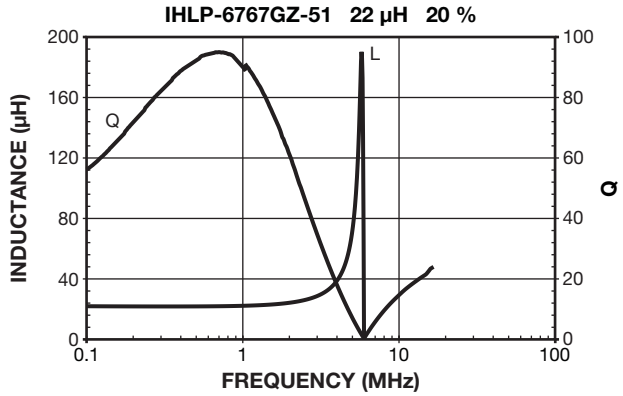

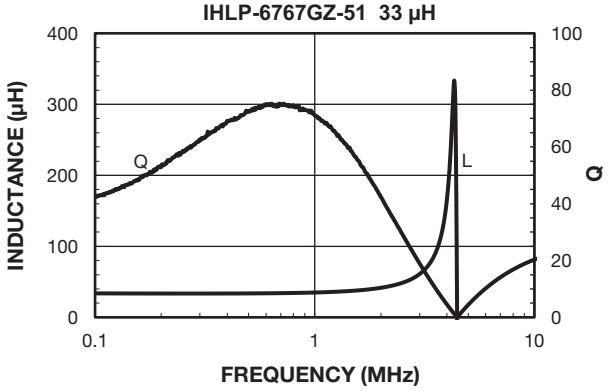

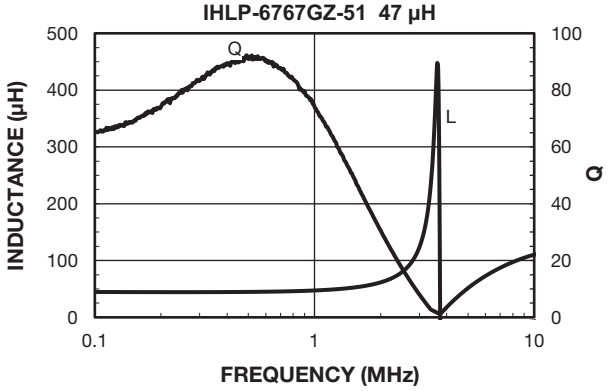

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