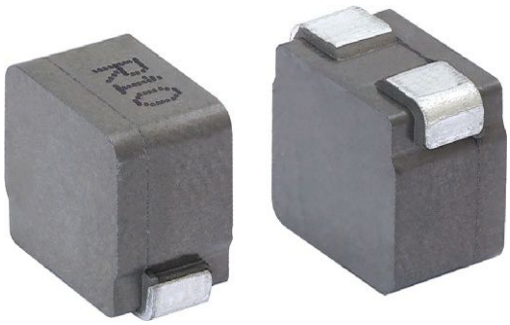
Ultra Low DCR Inductors, High Current, Vertical Mount Series



FEATURES

- High temperature rating, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 5 MHz. Filter inductor applications up to SRF (see "Standard Electrical Specificaitons" table)
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Inductance and saturation is extremely stable over full operating temperature
- Unique vertical mounting profile to optimize board space and utilize air flow for cooling
- **Patent pending**
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

L_0 INDUCTANCE AT 100 kHz, 0.25 V, 0 A (µH)	DCR AT 25 °C (mΩ)		HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A)		SRF TYP. (MHz)
	TYP.	MAX.		(2)	(3)	
0.10	0.130	0.143	112	140	183	212
0.15	0.130	0.143	112	82	112	126

Notes

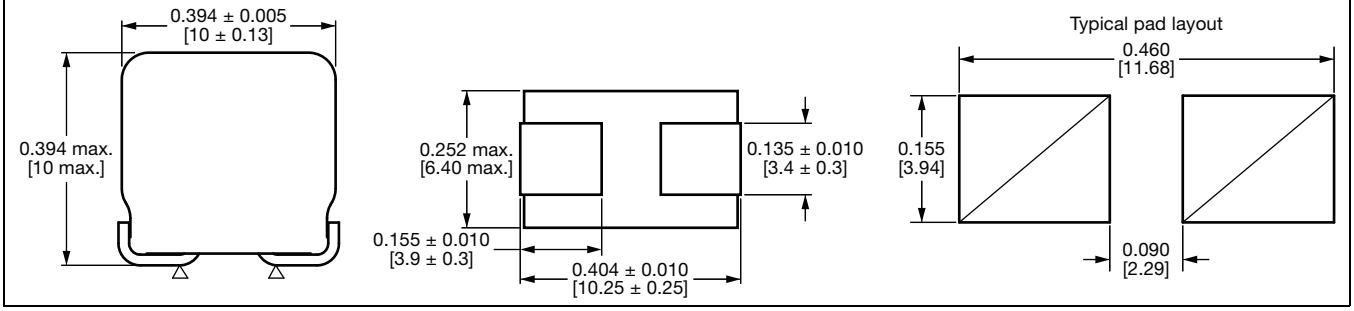
- All test data is referenced to 25 °C ambient
- Operating temperature range -40 °C to +155 °C
- The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions 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 L_0 to drop approximately 20 %
(3) DC current (A) that will cause L_0 to drop approximately 30 %

APPLICATIONS

- Desktop / server applications
- High current POL converters
- Low profile, high current power supplies
- DC/DC converters in distributed power systems
- DC/DC converter for field programmable gate array (FPGA)

DIMENSIONS in inches [millimeters]



Note

- DCR measured at locations indicated by "Δ" on drawing

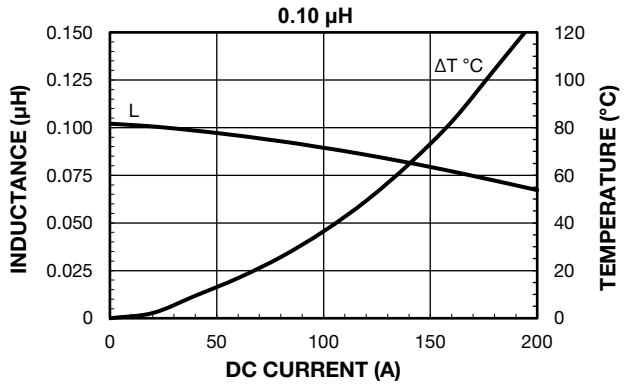
DESCRIPTION

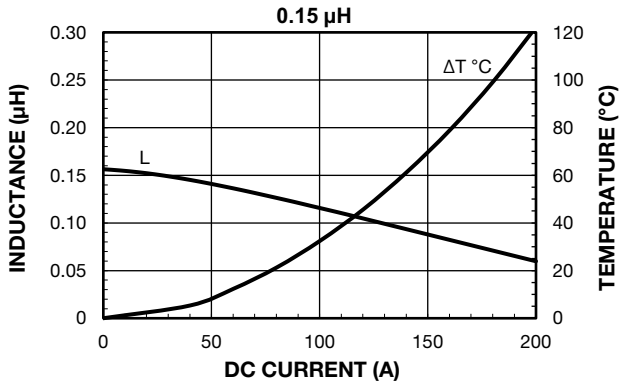
IHVR-4025JZ-3Z	0.10 µH	± 20 %	EZ	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

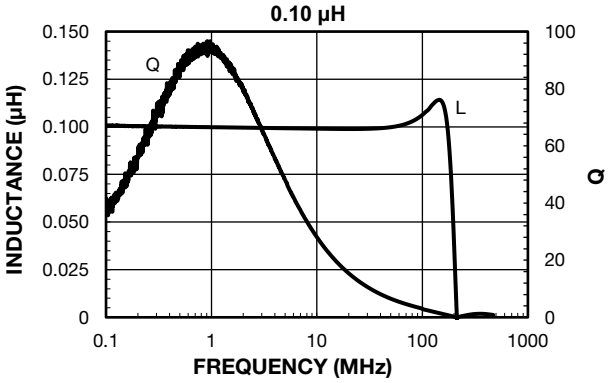
I	H	V	R	4	0	2	5	J	Z	E	Z	R	1	0	M	3	Z
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

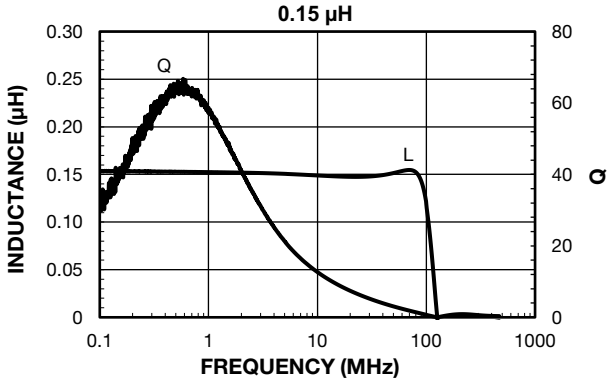
PERFORMANCE GRAPHS





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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