



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Low-Profile, High-Current Coupled Inductor



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.

STANDARD ELECTRICAL SPECIFICATIONS					
	L_0 INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A (μ H)	DCR NOM. (m Ω)	DCR MAX. 25 °C (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽³⁾	SATURATION CURRENT DC TYP. (A) ⁽⁴⁾
L ₁₋₂	10	90.6	97.0	4.3	8.0
L ₃₋₄	10	86.0	92.0	4.2	9.0
L ₁₋₄ (L ₂₋₃ shorted)	36	176.0	189.0	2.9	4.0
L ₁₋₃ (L ₂₋₄ shorted)	1.0	176.0	189.0	2.9	See note ⁽⁶⁾
L _{Common Mode} (1-3 and 2-4 shorted)	10	33.0	34.6	7.5	7.5
L _{Differential Mode} (1-4 and 2-3 shorted)	0.0	33.0	34.6	7.5	See note ⁽⁶⁾

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) In this configuration, current flowing opposite directions through coils cancels and the 1.0 μ H inductance is very stable with varying current. Observe the heat rating current to avoid excessive temperature rise in this configuration.
- (7) Maximum recommended operating voltage = 50 V.

FEATURES

- High temperature, up to 155 °C
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/ μ H in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Coupling is > 90 % - optimized for SEPIC converters
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

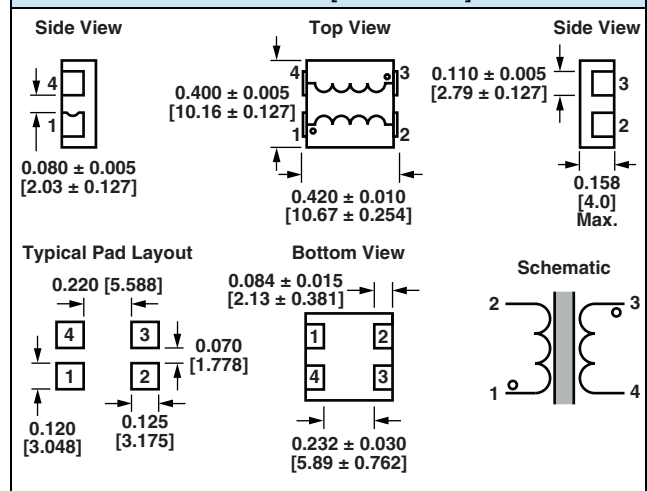
 AUTOMOTIVE
GRADE

RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- SEPIC converters
- DC/DC converters
- Common mode applications
- LED lighting

DIMENSIONS in inches [millimeters]

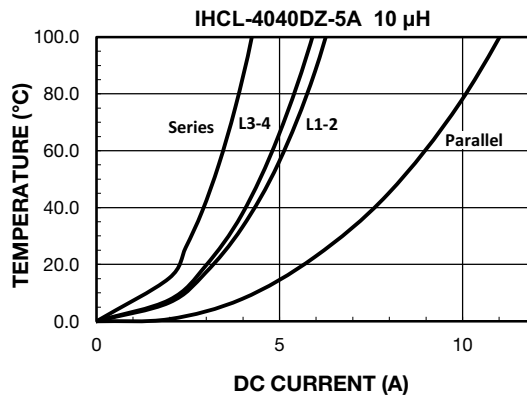
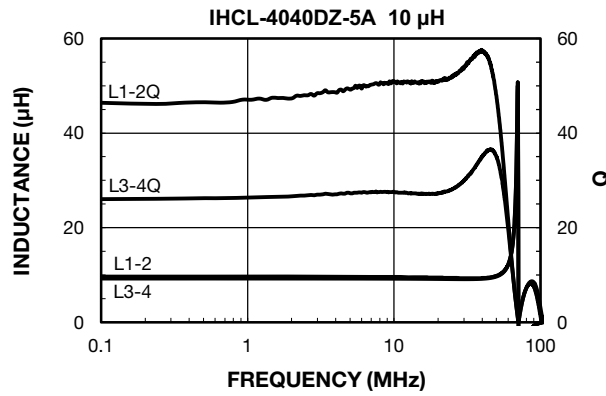
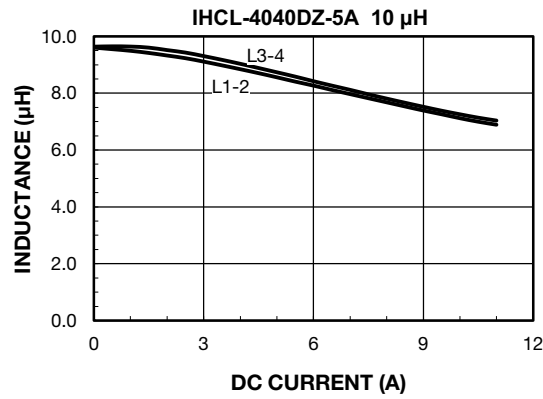


DESCRIPTION				
IHCL-4040DZ-5A	10 μ H	$\pm 20\%$	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER																	
I	H	C	L	4	0	4	0	D	Z	E	R	1	0	0	M	5	A
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES			



PERFORMANCE GRAPHS





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