

IHCL4040DZER2R7M5A Datasheet

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DiGi Electronics Part Number	IHCL4040DZER2R7M5A-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHCL4040DZER2R7M5A
Description	INDUCT ARRAY 2 COIL 2.7UH SMD
Detailed Description	Shielded 2 Coil Inductor Array Inductance - Connected in Series Inductance - Connected in Parallel DC Resistance (DCR) - Parallel Nonstandard

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Purchase and inquiry

Manufacturer Product Number:

IHCL4040DZER2R7M5A

Series:

IHCL

Number of Coils:

2

DC Resistance (DCR) - Parallel:

-

Shielding:

Shielded

Operating Temperature:

-55°C ~ 155°C

Package / Case:

Nonstandard

Height:

0.157" (4.00mm)

Manufacturer:

Vishay Dale

Product Status:

Active

Tolerance:

±20%

DC Resistance (DCR) - Series:

-

Ratings:

AEC-Q200

Mounting Type:

Surface Mount

Size / Dimension:

0.420" L x 0.400" W (10.67mm x 10.16mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



Low Profile, High Current Coupled Inductor



LINKS TO ADDITIONAL RESOURCES



STANDARD ELECTRICAL SPECIFICATIONS					
	L_0 INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A (μ H)	DCR NOM. 25 °C (m Ω)	DCR MAX. 25 °C (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾
L ₁₋₂	2.7	15.9	17.0	9.3	11.0
L ₃₋₄	2.7	16.7	17.9	8.5	11.0
L ₁₋₄ (L ₂₋₃ shorted)	10.8	32.6	34.9	6.0	2.7
L ₁₋₃ (L ₂₋₄ shorted)	0.1	32.6	34.9	6.0	See note ⁽³⁾
L _{Common Mode} (1-3 and 2-4 shorted)	2.7	7.6	8.1	13.25	5.7
L _{Differential Mode} (1-4 and 2-3 shorted)	0.1	7.6	8.1	13.25	See note ⁽³⁾

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
 - Rated operating voltage (across inductor) = 50 V
 - SEPIC operation can generate up to 2x the input or output voltage across the inductor. Please limit V_{IN} and V_{OUT} to 25 V max. for SEPIC operation
- (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) In this configuration, current flowing opposite directions through coils cancels and the 0.1 μ H inductance is very stable with varying current. Observe the heat rating current to avoid excessive temperature rise in this configuration

FEATURES

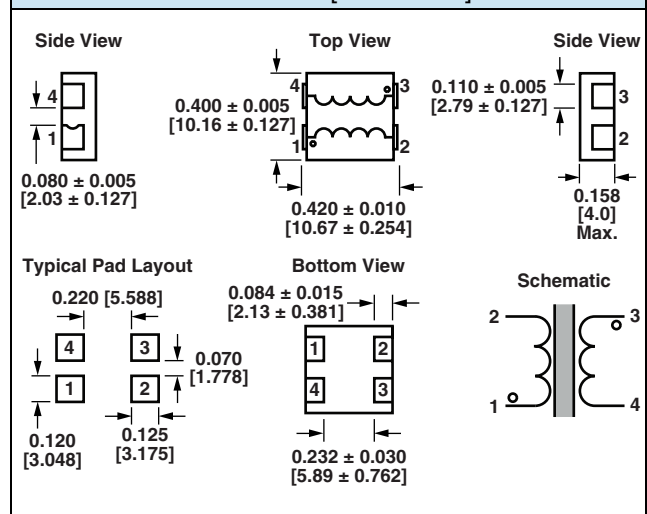
- High temperature, up to 155 °C
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/ μ H in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Coupling is > 90 % - optimized for SEPIC converters
- AEC-Q200 qualified
- IHCL design; PATENT(S): www.vishay.com/patents
- 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]



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

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


www.vishay.com
IHCL-4040DZ-5A 2.7 μ H

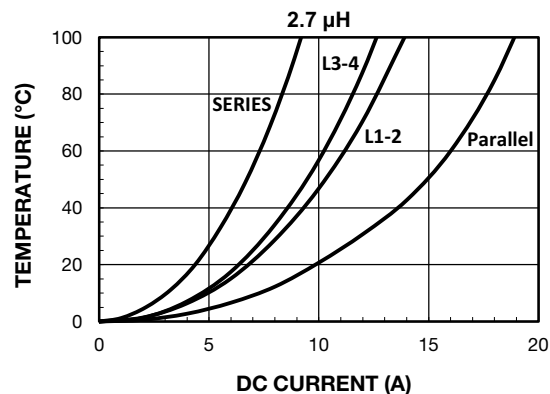
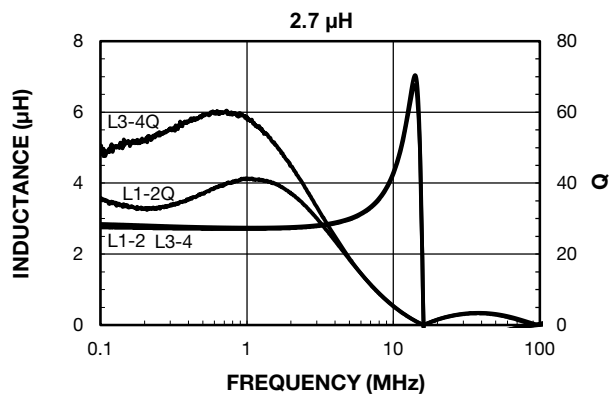
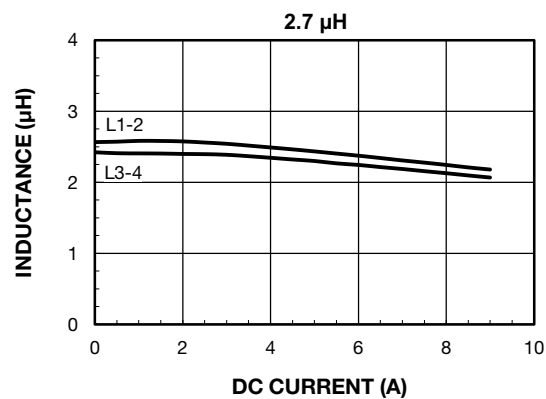
Vishay Dale

DESCRIPTION

IHCL-4040DZ-5A	2.7 μH	$\pm 20\%$	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	2	R	7	M	5	A
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES			

PERFORMANCE GRAPHS




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