

Low-Profile, High-Current Inductor



KEY BENEFITS

- Integrated e-field shield eliminates the need for separate shielding
- Up to 20 dB e-field reduction at 1 cm when the integrated shield is connected to ground
- Co-planarity of the 4 terminals $\leq 100 \mu\text{m}$

APPLICATIONS

- Energy storage DC/DC converters
- High-current filtering

RESOURCES

- Datasheets: IHLE-4040DC-5A - www.vishay.com/doc?34380
- For technical questions, contact magnetics@vishay.com
- Material categorization: for definitions, please see www.vishay.com/doc?99912



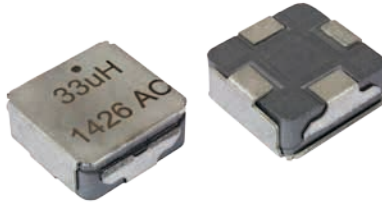
RoHS
COMPLIANT



SMD POWER INDUCTOR

IHLE-4040DC-5A

Low-Profile, High-Current Inductor



STANDARD ELECTRICAL SPECIFICATIONS				
L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (m Ω)	DCR MAX. 25 °C (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽³⁾	SATURATION CURRENT DC TYP. (A) ⁽⁴⁾
0.47	1.55	1.66	30.0	28.5
1.0	2.87	3.07	23.5	24.0
2.2	8.15	8.76	15.0	12.0
3.3	11.0	11.81	11.0	12.0
4.7	14.3	15.32	9.8	9.2
5.6	16.5	17.60	9.3	9.0
6.8	20.9	22.36	9.1	9.0
10	30.9	33.06	6.5	8.5
15	47.0	50.29	5.1	7.7
22	70.5	75.44	4.1	6.4
33	110	117.70	3.7	4.2
47	167	178.00	2.5	4.5

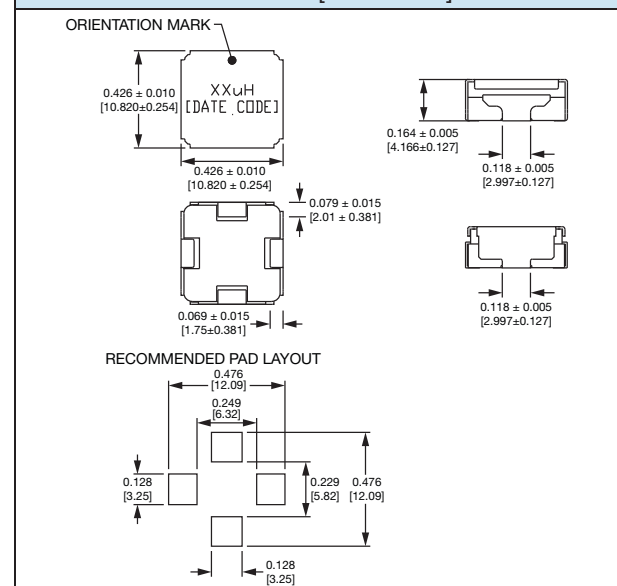
Notes

- (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.

APPLICATIONS

- Engine and transmission control units
- Diesel injection drivers
- Noise suppression for motors
 - Windshield wipers
 - Power seats
 - Power mirrors
 - Heating and ventilation blowers
 - HID lighting
- LED drivers

DIMENSIONS in inches [millimeters]



DESCRIPTION

IHLE-4040DC-5A	33 μH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I	H	L	E	4	0	4	0	D	C	E	R	3	3	0	M	5	A
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES			

Revision 17-Oct-14