



Vishay Intertechnology Releases Second-Generation Automotive Grade IHLE® Inductor With Integrated EMI Shield in 4040 Case Size

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Improved Shield Design Delivers Higher Voltage Ratings, Up to 20 dB of Radiated E-Field Reduction, and Polarity Marking for Additional EMI Control

MALVERN, Pa., June 05, 2024 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today expanded its IHLE® series of low profile, high current inductors featuring integrated E-field shields with a new second-generation Automotive Grade device in the 10 mm by 10 mm 4040 case size. Offering an improved shield design over previous-generation solutions, and polarity marked for more consistent EMI performance, the Vishay Dale [IHLE-4040DDEW-5A](#) lowers costs and saves board space by potentially eliminating the need for separate board-level Faraday shielding.

Compared to traditional composite inductors, the device released today contains the electric and magnetic fields associated with EMI in a tin-plated copper integrated shield. When the shield is connected to ground, the IHLE-4040DDEW-5A provides up to 20 dB reduction in radiated noise interference, and a further 6 dB reduction in magnetic flux leakage to minimize crosstalk to nearby board components. The inductor features continuous high temperature operation to +155 °C and improved operating and isolation voltage ratings of 75 V and 100 V, respectively.

The IHLE-4040DDEW-5A power inductor is optimized for energy storage in switch mode power supplies and provides excellent noise attenuation when used as a DC power line choke. AEC-Q200 qualified, the device is designed for filtering and DC/DC conversion in entertainment / navigation systems; LED drivers; and noise suppression for motors, automotive domain control units (DCU), and other noise-sensitive applications.

Packaged in a 100% lead (Pb)-free, magnetically shielded, iron alloy encapsulant, the IHLE-4040DDEW-5A offers high resistance to thermal shock, moisture, and mechanical shock from the additional mounting support provided by its two shield terminals. The inductor is RoHS-compliant, halogen-free, and [Vishay Green](#).

Device Specification Table:

	Low End	High End
Inductance @ 100 kHz (µH)	0.47	68
DCR typ. @ 25 °C (mΩ)	1.55	240
DCR max. @ 25 °C (mΩ)	1.66	252
Heat rating current typ. (A)⁽¹⁾	32	2.6
Saturation current typ. (A)⁽²⁾	28	3.5
Saturation current typ. (A)⁽³⁾	40.1	4.9
SRF typ. (MHz)	32.0	3.5
Case size	4040	4040
Part number	IHLE4040DDEWR47M5A	IHLE4040DDEW680M5A

⁽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 %

Samples and production quantities of the IHLE-4040DDEW-5A are available now, with lead times of 16 weeks.

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**® Vishay Intertechnology, Inc. is a Fortune 1,000 Company listed on the NYSE (VSH). More on Vishay at www.Vishay.com.

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Link to product datasheet:

<http://www.vishay.com/ppg?34587> (IHLE-4040DDEW-5A)

Link to product photo:

<https://www.flickr.com/photos/vishay/albums/72177720317462897>

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