New IHLE-2020CD-51 and IHLE-2020CD-5A Commercial and Automotive Grade IHLE® Integrated E-Field Shield Inductors in Compact 2020 Case Size Lower Costs and Save Space, Provide Up to -20 dB Electric Field Reduction at 1 cm

Product Benefits:

- Integrated E-field shields reduce EMI
- Offered in the compact 2020 case size
- High temperature operation to +155 °C
- Coplanarity of their four terminals within ≤ 100 µm
- AEC-Q200 qualified (IHLE-2020CD-5A)
- Handle high transient current spikes without saturation
- RoHS-compliant, halogen-free, and Vishay Green

Market Applications:

- Energy storage in DC/DC converters up to 3 MHz
- Servers and desktop PCs; notebooks; high current POL converters; low profile, high current power supplies; FPGAs; and battery-powered devices
- Automotive engine and transmission control units; entertainment / navigation systems; LED drivers; instrumentation panels; ADAS devices / sensors; and noise suppression for PWM-controlled motors

The News:

Vishay Intertechnology expands its IHLE® series of low profile, high current inductors featuring integrated E-field shields for the reduction of EMI with new commercial and Automotive Grade devices in the 5 mm by 5 mm by 3.4 mm 2020 case size. The smallest such devices on the market, the Vishay Dale IHLE-2020CD-51 and IHLE-2020CD-5A lower costs and save board space by eliminating the need for separate board-level Faraday shielding.

- Contain the electric and B field associated with EMI in a tin-plated copper integrated shield
  - Provide up to -20 dB of electric field reduction at 1 cm (above the center of the inductor) when the integrated shield is connected to ground
- Provide excellent attenuation of noise in high current filtering applications up to the SRF of the inductor
- Packaged in a 100 % lead (Pb)-free shielded, composite construction that reduces buzz noise to ultra low levels
- High resistance to thermal shock, moisture, and mechanical shock

The Key Specifications:

Part number	IHLE-2020CD-51 / IHLE-2020CD-5A
Case size	2020
Inductance @ 100 kHz (µH)	0.22 to 15
DCR typ. @ 25 °C (mΩ)	3.95 to 195.0
DCR max. @ 25 °C (mΩ)	4.23 to 208.0
Heat rating current typ. (A)	2.4 to 18.0(1)
Saturation current typ. (A)	1.6 to 11.0(2)
SRF typ. (MHz)	14.1 to 190.0

(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 %

Availability:
Samples and production quantities of the new IHLE devices are available now, with lead times of 12 weeks.

To access the product datasheets on the Vishay Website, go to
http://www.vishay.com/ppg?34576 (IHLE-2020CD-51)
http://www.vishay.com/ppg?34577 (IHLE-2020CD-5A)

Contact Information:

THE AMERICAS
Doug Lillie
doug.lillie@vishay.com

EUROPE
Jens Walther
Jens.Walther@vishay.com

ASIA/PACIFIC
Victor Goh
Victor.Goh@vishay.com