Broadening EMC Noise Reduction Applications, ILHB Series Automotive Grade Ferrite Beads Now Available in Smaller 0402, 0603, 0805, 1008, and 1206 Case Sizes, With Higher Current to 6 A and Wider Range of Impedance Values From 10 Ω to 2700 Ω

Product Benefits:

- Available in 0402, 0603, 0805, 1008, and 1206 case sizes
- Current handling up to 6 A
- Impedance values from 10 Ω to 2700 Ω
- AEC-Q200 qualified
- Silver (Ag) inner conductor with copper (Cu), nickel (Ni), and tin (Sn) plating
- Operating temperature range from -55 °C to +125 °C
- RoHS-compliant, halogen-free, and Vishay Green

Market Applications:

- High current, high frequency, and signal-specific filtering in automotive energy distribution and management systems; industrial automation systems; home and building controls; computers and computer peripherals; consumer devices; white goods; medical instrumentation; avionics; and telecom infrastructure

The News:

Vishay Intertechnology announces an expansion of its ILHB series of Automotive Grade multilayer chip ferrite beads for high current filtering. The Vishay Dale devices now offer higher current capability, smaller case sizes, and a wider range of impedance values to meet a broader set of EMC noise reduction requirements.

- The expanded lineup allows designers to achieve higher current handling in smaller packages, while delivering two to three times the current capability for the same package size and impedance value
- This expanded range of sizes, current handling, and impedance values allows the ILHB ferrite beads to be used in a wider array of EMC noise reduction applications
- To simplify device selection, the ILHB product datasheets have also been enhanced with additional design parameters that help engineers estimate bead performance across more frequencies without consulting multiple performance graphs. These parameters include impedance peak value and frequency, the frequency at which impedance drops below the nominal value, and the X- and R-frequency crossover point

The Key Specifications:

Part number	IHLB-0402	IHLB-0603	IHLB-0805	IHLB-1008	IHLB-1206
Case size	0402	0603	0805	1008	1206
Dimensions (mm)	1.0 x 0.5 x 0.5	1.6 x 0.8 x 0.8	2.0 x 1.2 x 0.85	2.5 x 2.0	3.2 x 1.6
Z at 100 MHz (Ω)	10 to 1800	22 to 2500	17 to 2700	300 to 600	19 to 1000
DCR max. (mΩ)	18 to 2400	7 to 1800	10 to 800	30	10 to 300
Rated DC current at 85 °C (1) (A)	0.05 to 3.1	0.05 to 6	0.2 to 6	4	0.5 to 6
Z_{pk} (2) (Ω)	19 to 3738	28 to 2526	21.6 to 31 868	554 to 670	32.68 to 1167
F at Z_{pk} (3) (MHz)	97 to 1329	78 to 1000	72 to 1132	122 to 155	61 to 2921
Z typ. at 100 MHz (Ω)	10 to 2038	22 to 2200	17 to 2713	309 to 517	17.2 to 1000
F at Z_{DO} (4) (MHz)	125 to > 10 000	100 to 8000	84 to 8000	138 to 222	100 to > 10 000
XL / XR x over (5) (MHz)	31 to 710	26 to 439	23 to 298	100 to 117	25 to 120

(1) Rated current is the DC current that causes a 40 °C temperature rise at 20 °C ambient
(2) Z_{pk} = peak of impedance curve
(3) F at Z_{pk} = frequency of Z_{pk}
(4) F at Z_{DO} = frequency above 100 MHz where Z drops to nominal Z
(5) XL / XR x over = crossover point for inductive reactance and resistance impedance

Availability:
Samples and production quantities of the ILHB ferrite beads are available now, with lead times of 8 to 10 weeks.

To access the product datasheets on the Vishay Website, go to
http://www.vishay.com/ppg?34689 (ILHB-0402)
http://www.vishay.com/ppg?34690 (ILHB-0603)
http://www.vishay.com/ppg?34691 (ILHB-0805)
http://www.vishay.com/ppg?34695 (ILHB-1008)
http://www.vishay.com/ppg?34692 (ILHB-1206)

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