

New IHVR-4025JZ-3Z Vertical-Mount Inductor in 10 mm by 6.4 mm by 10 mm 4025 Case Size Saves Space, Increases Efficiency in DC/DC Converters; Features a Reduced Footprint, Vertical-Mount Configuration to Reduce DCR Down to 0.130 mΩ

Product Benefits:

- Vertical-mount design
- Reduced footprint
- Less restricted airflow for more efficient cooling
- Offered in the 10 mm by 6.4 mm by 10 mm 4025 case size
- High temperature operation up to +155 °C
- Low DCR down to 0.130 mΩ
- High rated current up to 112 A
- Handles high transient current spikes without saturation
- RoHS-compliant, halogen-free, and [Vishay Green](#)



Market Applications:

- Filtering and DC/DC conversion in desktops and servers; low profile, multi-phase, high current power supplies; POL converters; and distributed power systems and FPGAs

The News:

Vishay Intertechnology introduces a new IHVR vertical-mount inductor in the 10 mm by 6.4 mm by 10 mm 4025 case size. Featuring a reduced footprint, vertical-mount configuration that optimizes inductance and minimizes DCR for increased efficiency in DC/DC converters, the Vishay Dale IHVR-4025JZ-3Z offers high temperature operation up to +155 °C for computer, server, telecom, and industrial applications.

- Compared to traditional inductors, the compact size and unique vertical-mount design of the IHVR-4025JZ-3Z save on board space and allow for more efficient cooling by utilizing air flow, while enabling 50 % lower DCR and higher rated current
- The inductor's rectangular shape provides better integration with other board components, making it easier for designers to keep PCB trace lengths equal to reduce phase imbalances
- Higher efficiency can result in significant energy savings over the life of the application
- Optimized for energy storage in DC/DC converters up to 5 MHz and high current filtering applications up to the SRF of the inductor
- Offers extremely stable inductance and saturation over the full -40 °C to +155 °C operating temperature range
- 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:

Case size	4025
Inductance (μH)	0.10 to 0.15
DCR typ. ($\text{m}\Omega$)	0.130
DCR max. ($\text{m}\Omega$)	0.143
Heat rating current (A)	112 ⁽¹⁾
Saturation current (A)	82 to 140 ⁽²⁾ / 112 to 183 ⁽³⁾
SRF (MHz)	126 to 212

⁽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 %

Availability:

Samples and production quantities of the IHVR-4025JZ-3Z are available now, with lead times of 12 weeks.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?34575> (IHVR-4025JZ-3Z)

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