

AEC-Q200 Qualified MKP1848e DC-Link Film Capacitor Delivers High Temp. Operation Up to +125 °C and Withstands Grade III THB Testing for High Robustness Under High Humidity in Automotive, Energy, and Industrial Applications

Product Benefits:

- AEC-Q200 qualified
- High temperature operation up to +125 °C
- High robustness, withstanding:
 - THB testing in accordance with Grade III of IEC60384-16 ed.3 – 60 °C / 93 % R.H for 1344 hours at rated voltage
 - Operating voltages from 250 V_{DC} to 800 V_{DC} at +125 °C for a limited time
 - 1000 temperature cycles from -40 °C to +125 °C, with a 30-minute dwell time for each temperature extreme
- Ripple current up to 44.5 A
- Rated capacitance from 1 µF to 140 µF
- Low ESR down to 1.0 mΩ
- Pitch options down to 22.5 mm
- Available with customized terminals on request



Market Applications:

- Automotive power conversion applications such as on-board chargers (OBC), power trains, HVAC systems, e-compressors, and DC/DC converters
- Energy and industrial power conversion applications such as fast chargers, solar inverters, rectifiers for hydrogen electrolyzers, battery storage systems, motor drives, and UPS

The News:

Vishay Intertechnology introduces a new AEC-Q200 qualified DC-Link metallized polypropylene film capacitor designed for the harsh conditions of automotive, energy, and industrial applications.

- The device provides 25 % higher ripple current density than previous-generation solutions with the same volume, while its compact footprint and pitch options enable volume reductions up to 40 % and 15 %, respectively, at 500 V_{DC} and 900 V_{DC}
- The MKP1848e meets the standard high voltage levels of electric (EV) and plug-in hybrid electric vehicles (PHEV)

The Key Specifications:

- Ripple current: 2.8 A to 44.5 A
- Rated capacitance: 1 µF to 140 µF
- Capacitance tolerance: ± 5 %, ± 10 %



NEW PRODUCT INFORMATION

Product Group: Vishay Roederstein, Film Capacitors / September 2025



- ESR: 1.0 mΩ to 36.6 mΩ
- Rated voltages at:
 - +70 °C: 600 V_{DC} to 1600 V_{DC}
 - +85 °C: 500 V_{DC} to 1300 V_{DC}
 - +105 °C: 350 V_{DC} to 950 V_{DC}
 - +125 °C: 250 V_{DC} to 800 V_{DC}
- Pitch: 22.5 mm, 27.5 mm, 37.5 mm, 52.5 mm

Availability:

Samples and production quantities of the MKP1848e are available now, with lead times of 10 weeks.

To access the product datasheet on the Vishay Website, go to
<http://www.vishay.com/ppg?26085> (MKP1848e DC-Link)

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