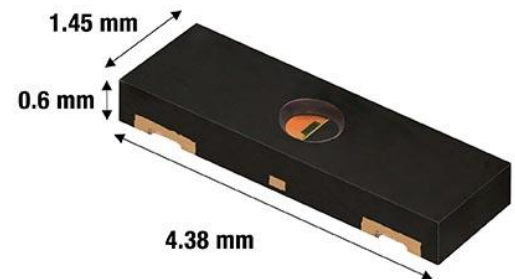


AEC-Q100 Qualified Ambient Light Sensor in Rectangular 4.38 mm x 1.45 mm x 0.6 mm Package Allows for Easier Integration Into Space-Constrained Designs, Offers High Resolution of 0.0026 lx/ct for Placement Behind Dark Cover Glass

Product Benefits:

- AEC-Q100 qualified
- Offered in narrow 4.38 mm by 1.45 mm by 0.6 mm surface-mount package
- Spectral sensitivity matches that of the human eye for highly accurate measurements
- IR channel allows for light source differentiation
- An ambient light range from 0 lx to 172 klx prevents saturation in daylight
- High sensitivity of 0.0026 lx/ct allows for placement behind dark cover glass
- High operating temperature range to +110 °C
- Supports the easy to use I²C bus communication interface
- Features an interrupt function
- Low shut down current consumption of 0.5 µA typical
- Moisture Sensitivity Level of 2a and a floor life of four weeks in accordance with J-STD-020
- RoHS-compliant, halogen-free, and Vishay Green



Market Applications:

- Display backlight controls, infotainment systems, rearview mirror dimming, interior lighting control systems, and heads-up displays

The News:

Vishay Intertechnology introduces the industry's first AEC-Q100 qualified rectangular ambient light sensor.

- The Automotive Grade VEML4031X00 features an ALS and highly sensitive IR photodiode in an opaque 4.38 mm by 1.45 mm surface-mount package with a low 0.6 mm profile
- Offering half the width of previous-generation solutions, the device allows for easier integration into space-constrained designs, such as bezel-less center control displays

The Key Specifications:

- Dimensions: 4.38 mm by 1.45 mm by 0.6 mm
- Operating voltage range: 2.5 V to 3.6 V
- I²C bus voltage range: 1.7 V to 3.6 V
- Ambient light range: 0 lx to 172 klx
- Ambient light resolution: 0.0026 lx
- Operating temperature range: -40 °C to +110 °C



NEW PRODUCT INFORMATION

Product Group: Vishay Optoelectronics, Sensors / May 2025



Availability:

Samples and production quantities of the new ambient light sensor are available now, with lead times of 14 weeks.

To access the product datasheet on the Vishay Website, go to

<http://www.vishay.com/ppg?80348> (VEML4031X00)

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