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VSLB9530S Infrared Emitter for Gesture Remote Controls

The News:

Vishay Intertechnology Releases High-Power, High-Speed 940 nm Infrared Emitting Diode for Gesture Remote Control Applications

Vishay Intertechnology, Inc. (NYSE: VSH) is broadening its optoelectronics portfolio with the introduction of a new high-power, high-speed 940 nm infrared emitter for gesture remote control applications. Offering high radiant power of 40 mW at 100 mA, the VSLB9530S is offered in a clear molded, leaded TELUX package with an oval lens designed to support an angle of half intensity of $\pm 18^\circ$ in the vertical direction and $\pm 36^\circ$ in the horizontal direction.



Key Specifications:

- High radiant power of 40 mW at 100 mA
- Achievable radiant intensity to 60 mW/sr at 150 mA
- Clear molded, leaded TELUX package with an oval lens
 - measures 7.62 mm by 7.62 mm by 4.6 mm
 - provides a low thermal resistance of 200 K/W
- Angle of half intensity: $\pm 18^\circ$ in the vertical direction and $\pm 36^\circ$ in the horizontal direction
- Built on GaAlAs multi quantum well (MQW) technology
- Continuous drive currents up to 150 mA
- High modulation bandwidth of 24 MHz
- Suitable for high pulse current operation.
- Fast switching speeds down to 15 ns
- Low forward voltage down to 1.31 V at 150 mA
- Operating temperature range from -40°C to $+95^\circ\text{C}$
- RoHS compliant, halogen-free, and conforms to Vishay's "Green" standards



Market Applications:

Emitter source for gesture recognition applications, 3DTV, mid-range proximity detection, and object/presence detection

The Perspective:

The unique angular distribution of the VSLB9530S makes it ideal for gesture remote control of televisions and gaming systems, where it provides excellent spectral matching with silicon photodetectors. The IR emitter's wider angle in the horizontal view helps maintain position flexibility for users, while the narrower angle in the vertical plane focuses the distributed radiant intensity.

Availability: Samples and production quantities of the new IR emitters and photodiode are available now, with lead times of six to eight weeks.

To access the product datasheet on the Vishay Web site, go to <http://www.vishay.com/doc?82564> (VSLB9530S)

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