Built on Surface Emitter Technology, New TSHF5211 890 nm IR Emitting Diode Offers High Typical Radiant Intensity of 235 mW/sr, Fast Switching Times of 15 ns, and Excellent Temperature Coefficient of V_F of -1.0 mV/K

Product Benefits:

- 890 nm peak wavelength
- Clear, untinted 5 mm leaded plastic package
- Based on surface emitter technology
- Excellent -1.0 mV/K temperature coefficient of V_F
- High typical radiant intensity of 235 mW/sr at a 100 mA drive current
- Fast switching times of 15 ns
- Low typical forward voltage of 1.5 V
- Narrow ± 10° angle of half intensity
- RoHS-compliant, halogen-free, and Vishay Green
- Lead (Pb)-free and capable of lead (Pb)-free soldering up to 260 °C

Market Applications:

- High intensity emitter for smoke detectors, light detectors, and industrial sensors

The News:

Vishay Intertechnology broadens its optoelectronics portfolio with the introduction of a new 890 nm high speed infrared (IR) emitting diode in a clear, untinted leaded plastic package. Based on surface emitter technology, the Vishay Semiconductors TSHF5211 combines an excellent -1.0 mV/K temperature coefficient of V_F with higher radiant intensity and faster rise and fall times than previous-generation devices.

- 50 % higher radiant intensity than previous-generation solutions
- Offers good spectral matching with silicon photodetectors

The Key Specifications:

- Peak wavelength: 890 nm
- Typical radiant intensity: 236 mW/sr
- Angle of half intensity: ± 10°
- Switching times: 15 ns
- Forward current: 100 mA
- Typical forward voltage: 1.5 V
- Temperature coefficient of V_F: -1.0 mV/K

Availability:
Samples and production quantities of the TSHF5211 are available now, with lead times of 20 weeks for large orders.

NEW PRODUCT INFORMATION

Product Group: Vishay Optoelectronics, Sensors / **July** 2024

To access the product datasheet on the Vishay Website, go to
http://www.vishay.com/ppg?80343 (TSHF5211)

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