Vishay Intertechnology RGB LED in PLCC-6 Package Provides Independent Control of Red, Green, and Blue Chips for Wide Color Range

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Automotive Grade Device Delivers Luminous Intensity to 2800 mcd, Enables Every Color Within the Gamut Triangle Inside the CIE 1931 Color Space

MALVERN, Pa., July 16, 2025 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today introduced a new tricolor LED that provides luminous intensity to 2800 mcd at 20 mA for interior automotive lighting, RGB displays, and backlighting. Featuring separate anode and cathode connections for the red, green, and blue LED chips inside its compact 3.5 mm by 2.8 mm by 1.4 mm PLCC-6 surface-mount package, the Automotive Grade VLMRGB6122.. enables individual control of each chip, making it possible to realize every color within the color room defined by the gamut triangle area inside the CIE 1931 color space through color mixing.

With its wide color range, the Vishay Semiconductors LED released today is ideal for ambient lighting, switch illumination, status indicators, and dashboard signal and symbol illumination in automobiles; large-format, full-color message and video display boards; backlighting in consumer devices, home appliances, medical instrumentation, and telecom equipment; and a wide range of accent and decorative lighting. For these applications, the device utilizes the latest high brightness AlInGaP and InGaN technologies to deliver 70 % higher brightness than previous-generation solutions in a package with a 22 % lower profile than competing products.

Providing high reliability, the VLMRGB6122.. offers a wide temperature range from -40 °C to +110 °C, which is 25 °C higher than standard solutions, and Class B1 corrosion robustness. The LED is AEC-Q102 qualified, offers a Moisture Sensitivity Level (MSL) of 3, and withstands ESD voltages up to 2 kV for red and 8 kV for blue and green in accordance with JESD22-A114-B. RoHS-compliant, halogen-free, and Vishay Green, the device is compatible with IR reflow soldering and categorized per reel for luminous intensity, color, and forward voltage.

Device Specification Table:

Color		Red	Green	Blue
Luminous intensity (mcd) @ I_F = 20 mA	**Min.**	710	1800	280
	Typ.	900	2200	320
	Max.	1400	2800	450
Wavelength (nm) @ I_F = 20 mA	**Min.**	618	520	450
	Typ.	623	527	455
	Max.	630	535	462
Forward voltage (V) @ I_F = 20 mA	**Min.**	1.75	2.5	2.5
	Typ.	1.95	2.75	3.0
	Max.	2.75	3.5	3.5
Angle of half intensity (°)		120		
Technology		AlInGaP	InGaN	InGaN

Samples and production quantities of the VLMRGB6122.. are available now, with lead times of 17 weeks.

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**® Vishay Intertechnology, Inc. is a Fortune 1,000 Company listed on the NYSE (VSH). More on Vishay at www.Vishay.com.

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Link to product photo:
https://www.flickr.com/photos/vishay/albums/72177720327533357/

Link to datasheet:

http://www.vishay.com/ppg?80526 (VLMRGB6122...)

For more information please contact:
Vishay Intertechnology
Peter Henrici, +1 408 567-8400
peter.henrici@vishay.com
or
Redpines
Bob Decker, +1 415 409-0233
bob.decker@redpinesgroup.com