

OPTOELECTRONIC LEDs

Selector Guide

Overview of super red, red, orange red, yellow, true green, and blue ultrabright LEDs in compact, untinted, surface-mount packages with dome lenses. Utilizing the latest ultrabright AlInGaP on Si chip technology, the space-saving Vishay Semiconductors VLD.1535.. series delivers extremely high brightness with luminous intensity to 14 000 mcd for an emission angle of $\pm 22^\circ$ and 35 000 mcd for a $\pm 11^\circ$ emission angle, without the need for an external lens.



FEATURES

- Utilizes the latest ultrabright AlInGaP on Si chip technology in super red, red, orange red, and yellow colors, and ultrabright InGaN / sapphire chip technology for true green and blue
- Achieves an emission angle of $\pm 22^\circ$, $\pm 11^\circ$, or $\pm 9^\circ$ without the need for an external lens
- Provides reliable performance
- Offers high luminous flux and incorporates larger chip sizes to withstand drive currents up to 70 mA
- Compact, untinted, surface-mount packages with dome lenses
 - 2.3 mm by 2.3 mm by 2.6 mm molded case
- Extremely high brightness with luminous intensity to 35 000 mcd at 50 mA for super red, red, orange red, and yellow
- Available in gullwing and reverse gullwing versions
- Withstands ESD voltages up to 2 kV in accordance with JESD22-A114-B
- Luminous- and color-categorized per packing unit
- RoHS-compliant, halogen-free, and [Vishay Green](#)
- Compatible with reflow soldering processes per J-STD-020
- Preconditioned according to JEDEC® level 2a

RESOURCES

- Datasheet: dome lens - www.vishay.com/en/leds/dome-lens/
- LED product portfolio: www.vishay.com/en/leds/
- Technical support: LED@vishay.com

Space-Saving Super Red, Red, Orange Red, Yellow, True Green, and Blue Ultrabright LEDs

Part Number	Color	Dominant Wavelength (nm) or Color Coordinate (x, y)			Luminous Intensity (I _v)			I _r for I _v (mA)	Forward Voltage V _F (V)		Angle of Half Intensity (±°)	Key Feature
		Min.	Typ.	Max.	Min.	Typ.	Max.		Typ.	Max.		
VLDS1235G	Super red	626	630	637	5600	11 000	22 400	50	2.2	2.7	11	Power
VLDS1235R	Super red	626	630	637	5600	11 000	22 400	50	2.2	2.7	11	Power
VLDS1535G	Super red	626	630	637	2800	5000	9000	50	2.2	2.7	22	Power
VLDS1535R	Super red	626	630	637	2800	5000	9000	50	2.2	2.7	22	Power
VLDR1235G	Red	619	624	631	9000	14 500	35 500	50	2.2	2.7	11	Power
VLDR1235R	Red	619	624	631	9000	14 500	35 500	50	2.2	2.7	11	Power
VLDR1535G	Red	619	624	631	3550	6500	11 200	50	2.2	2.7	22	Power
VLDR1535R	Red	619	624	631	3550	6500	11 200	50	2.2	2.7	22	Power
VLDK1235G	Orange red	611	616	621	9000	18 000	35 500	50	2.25	2.7	11	Power
VLDK1235R	Orange red	611	616	621	9000	18 000	35 500	50	2.25	2.7	11	Power
VLDK1535G	Orange red	611	616	621	4500	8000	14 000	50	2.25	2.7	22	Power
VLDK1535R	Orange red	611	616	621	4500	8000	14 000	50	2.25	2.7	22	Power
VL DY1235G	Yellow	583	589	595	9000	18 000	35 500	50	2.3	2.7	11	Power
VL DY1235R	Yellow	583	589	595	9000	18 000	35 500	50	2.3	2.7	11	Power
VL DY1535G	Yellow	583	589	595	4500	8000	14 000	50	2.3	2.7	22	Power
VL DY1535R	Yellow	583	589	595	4500	8000	14 000	50	2.3	2.7	22	Power
VLDTG1232G	True green	515	525	541	7100	16 000	-	20	3.0	3.4	9	Power
VLDTG1232R	True green	515	525	541	7100	16 000	-	20	3.0	3.4	9	Power
VLDB1232G	Blue	458	465	472	1800	3500	-	20	2.9	3.4	9	Power
VLDB1232R	Blue	458	465	472	1800	3500	-	20	2.9	3.4	9	Power

APPLICATIONS



Illuminated advertising



Interior lighting



Exterior lighting



Traffic signals and signs



Audio and video equipment

VLDxxxxxG “G” denotes gullwing package



VLDxxxxxR “R” denotes reverse gullwing package

