



The DNA of tech.™

## High Brightness, Tri-Color SMD LED in PLCC-6 Package



### FEATURES

- AEC-Q101 automotive qualified
- Qualified according to JEDEC® moisture sensitivity level 2
- Compatible with IR reflow soldering
- Environmentally friendly; RoHS-compliant

### BENEFITS

- Separate control of red, green, and blue LED chips
- High brightness

### APPLICATIONS

- Automotive interior lighting
- Wide range of accent and decorative lighting
- Displays: full-color message and video boards
- Consumer appliances: backlighting for LCDs, PDAs, and TVs
- Industry: white goods such as ovens, microwaves, etc

### RESOURCES

- Datasheet: <http://www.vishay.com/doc?84342>
- LED product portfolio: <http://www.vishay.com/leds/>
- Technical support: [LED@vishay.com](mailto:LED@vishay.com)
- Sales contacts: <http://www.vishay.com/doc?99914>



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# OPTOELECTRONICS

## VLMRGB6112 Series LED

### Multi SMD RGB LED

Optical and Electrical Characteristics <sup>(1)</sup> VLMRGB6112..., Red, True Green, Blue									
Parameter	Test Condition	Part	Floating Groups	Color	Symbol	Min.	Typ.	Max.	Unit
Luminous Intensity	$I_F = 20 \text{ mA}$	VLMRGB6112		Red	$I_V$	560	730	920	mcd
				True green		900	1030	1800	
				Blue		180	230	450	
		Red	560			710			
		U2V2S1	True green	900			1120		
			Blue	180			224		
			Red	560			710		
		U2AAS1	True green	1120			1400		
			Blue	180			240		
			Red	560			710		
		U2V2T1	True green	900			1120		
			Blue	280			355		
			Red	560			710		
		U2V2T2	True green	900			1120		
			Blue	355			450		
			Red	560			710		
		U2AAS1	True green	1120			1400		
			Blue	100			140		
			Red	580			710		
		U2AAS2	True green	1120			1400		
			Blue	140			200		
			Red	580			710		
		U2AAT1	True green	1120			1400		
			Blue	100			140		
			Red	580			710		
		U2AAT2	True green	1120			1400		
			Blue	140			200		
			Red	560			710		
		U2ABS1	True green	400			1800		
			Blue	180			224		
			Red	560			710		
		U2ABS2	True green	400			1800		
			Blue	224			280		
			Red	560			710		
		U2ABT1	True green	400			1800		
			Blue	280			355		
			Red	560			710		
		U2ABT2	True green	400			1800		
			Blue	355			450		
			Red	710			920		
		V1V2S1	True green	900			1120		
			Blue	180			224		
			Red	710			920		
		V1V2S2	True green	900			1120		
			Blue	224			280		

**Note:** Not designed for reverse direction.

(1)  $T_{amb} = 25 \text{ }^\circ\text{C}$ , unless otherwise specified



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Parameter	Test Condition	Part	Floating Groups	Color	Symbol	Min.	Typ.	Max.	Unit					
Luminous Intensity	$I_F = 20 \text{ mA}$	VLMRGB6112	V1V2T1	Red	$I_V$	710		920	mcd					
				True green		900		1120						
				Blue		280		355						
			V1V2T2	Red		710		920						
				True green		900		1120						
				Blue		355		450						
			V1AAS1	Red		710		920						
				True green		1120		1400						
				Blue		180		224						
			V1AAS2	Red		710		920						
				True green		1120		1400						
				Blue		224		280						
			V1AAT1	Red		710		920						
				True green		1120		1400						
				Blue		224		280						
			V1AAT2	Red		710		920						
				True green		1120		1400						
				Blue		280		355						
			V1ABS1	Red		710		920						
				True green		1400		1800						
				Blue		180		224						
			V1ABS2	Red		710		920						
				True green		1400		1800						
				Blue		224		280						
			V1ABT1	Red		710		920						
				True green		1400		1800						
				Blue		280		355						
			V1ABT2	Red		710		920						
				True green		1400		1800						
				Blue		355		450						
			Dominant Wavelength			VLMRGB6112		Red		$\lambda_d$	618	624	629	nm
								True green			519	526	534	
								Blue			463	469	476	
			Angle of Half Intensity			VLMRGB6112		Red		$\phi$		$\pm 60$		deg
								True green						
								Blue						
Forward Voltage		VLMRGB6112		Red	$V_F$	1.8	2.0	2.4	V					
				True green		2.7	3.1	3.6						
				Blue		2.7	3.0	3.6						

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