

High-Brightness Tri-Color SMD LED in PICC-4 Package



FEATURES

- Black surface
- AEC-Q101 automotive qualified
- Qualified according to JEDEC moisture sensitivity level 2
- Compatible with IR reflow soldering
- Environmentally friendly; RoHS-compliant
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

BENEFITS

- Separate control of red, green, and blue LED chips
- High brightness
- Eight available device options with various combinations of luminous intensity per color to suit a wide range of applications

APPLICATIONS

- Accent and decorative lighting
- Full-color message and video display boards
- Backlight for LCDs, PDAs, TVs, and other consumer electronics
- White goods, including home appliances such as conventional and microwave ovens, washing machines, and dryers

RESOURCES

- Datasheet: <http://www.vishay.com/doc?81742>
- LED product portfolio: <http://www.vishay.com/leds/>
- Technical support: LED@vishay.com
- Sales contacts: <http://www.vishay.com/doc?99914>

Optoelectronics - Separate control of red, green, and blue LED chips





OPTOELECTRONICS

VLMRGB343 Series LED



Multi SMD RGB LED

Optoelectronics - Separate control of red, green, and blue LED chips

Optical and Electrical Characteristics ⁽¹⁾ VLMRGB343.., Red, True Green, Blue												
Parameter	Test Condition	Part	Floating Groups	Color	Symbol	Min.	Typ.	Max.	Unit			
Luminous Intensity	$I_F = 20 \text{ mA}$	VLMRGB343-ST-UV-RS		Red	I_V	140		285	mcd			
				True green		285		560				
				Blue		100		200				
		VLMRGB343		S3U3R3		Red	I_V	140		200	mcd	
						True green		285		400		
						Blue		100		140		
					S3U3S3		Red	I_V	140		200	mcd
							True green		285		400	
							Blue		100		200	
					S3V3R3		Red	I_V	140		200	mcd
							True green		400		560	
							Blue		100		140	
				S3V3S3		Red	I_V	140		200	mcd	
						True green		400		560		
						Blue		100		200		
				T3U3R3		Red	I_V	200		285	mcd	
						True green		285		400		
						Blue		100		140		
				T3U3S3		Red	I_V	200		285	mcd	
						True green		285		400		
						Blue		140		200		
				T3V3R3		Red	I_V	200		285	mcd	
						True green		400		560		
						Blue		100		140		
T3V3S3				Red	I_V	200		285	mcd			
				True green		400		560				
				Blue		140		200				
Dominant Wavelength		VLMRGB343..		Red	λ_d	618	625	628	nm			
				True green		521	526	536				
				Blue		465	470	475				
Angle of Half Intensity		VLMRGB343..		Red	ϕ		± 60		deg			
				True green								
				Blue								
Forward Voltage		VLMRGB343..		Red	V_F		1.8	2.45	V			
				True green			3.7	4.25				
				Blue			3.6	4.25				

Note: Not designed for reverse direction.
 (1) $T_{amb} = 25 \text{ }^\circ\text{C}$, unless otherwise specified.