

White PLCC4, PLCC2, and MiniLED Packages for High-Brightness Lighting Solutions



The new VLMW3200 PLCC4 and VLM2100 MiniLED SMD packages are available in luminous intensity categories that feature the same classification and designation scheme as OSRAM®. The VLMW3200 offers a 60° angle of half-intensity, luminous intensity of ≥560 mcd, and a luminous intensity ratio of ≤1.6 per packaging unit, while the VLM2100 offers the same angle of intensity and luminous intensity ratios in a compact package size. These products allow bright, even lighting for interior and exterior lighting applications. They are ideal for backlighting audio, video, symbols, and illuminated advertising. Low power consumption adds to efficiency, prolonging battery life and/or reducing operational costs.

Features ▶

- Designed to meet increasing demand for white SMD LEDs
- Utilizes highly-efficient InGaN/TAG technology
- Chromaticity coordinate categorized
- Leadframe profile optimized to reduce thermal resistance

Benefits ▶

- High-brightness white products in an industry standard PLCC4, PLCC2, and MiniLED packages
- Reduced operational costs
- Long life
- Low power consumption

Applications ▶

- Interior and exterior lighting
- Backlighting video, audio, and symbols
- Chromaticity coordinate categorized



Product Specifications ▶

Part Number	Package Type	Color	Color Temp. (°K)	Dominant Wavelength (nm)	Max. Current (mA)	Tested Current (mA)	Forward Voltage (V)	Viewing Angle (deg)	Luminous Flux (lm)	Luminous Intensity (mcd)	Markets
VLMW41R1T1-5K8L-08	PLCC2	White	x=0.296/y=0.259 to x=0.364/y=0.380	NA	20	10	3.3	120	NA	112-355	CL TR BL SI
VLMW41R1T1-5K8L-18		White	x=0.296/y=0.259 to x=0.364/y=0.380	NA	20	10	3.3	120	NA	112-355	CL TR BL SI
VLMW41R2S2-5K8L-08		White	x=0.296/y=0.259 to x=0.364/y=0.380	NA	20	10	3.3	120	NA	140-280	CL TR BL SI
VLMW41R2S2-5K8L-18		White	x=0.296/y=0.259 to x=0.364/y=0.380	NA	20	10	3.3	120	NA	140-280	CL TR BL SI
VLMW41S1T1-5K8L-08		White	x=0.296/y=0.259 to x=0.364/y=0.380	NA	20	10	3.3	120	NA	180-355	CL TR BL SI
VLMW41S1T1-5K8L-18		White	x=0.296/y=0.259 to x=0.364/y=0.380	NA	20	10	3.3	120	NA	180-355	CL TR BL SI
VLMW3200-GS08		White	x=0.266/y=0.232 to x=0.360/y=0.357	NA	30	30	3.7	120	NA	560-1,800	CL TR BL SI
VLMW3200-GS18		White	x=0.266/y=0.232 to x=0.360/y=0.357	NA	30	30	3.7	120	NA	560-1,800	CL TR BL SI
VLMW3201-GS08		White	x=0.266/y=0.232 to x=0.360/y=0.357	NA	30	30	3.7	120	NA	710-1,800	CL TR BL SI
VLMW3201-GS18		White	x=0.266/y=0.232 to x=0.360/y=0.357	NA	30	30	3.7	120	NA	710-1,800	CL TR BL SI
VLMW2100-5K8L-08		White	x=0.266/y=0.232 to x=0.360/y=0.357	NA	20	10	3.0	120	NA	56-280	CL TR BL SI

MARKETS LEGEND

CL COMMERCIAL LIGHTING FL FLASHLIGHTS TR TRANSPORTATION BL BACKLIGHTING SI SIGNAGE



TELUX™ LEDs for High-Brightness Lighting Solutions

Vishey's high-performance TELUX™ LEDs feature high luminous flux with superior heat dissipation. These LEDs are perfect for use in exterior lighting, interior architectural illumination and accent lighting, automotive dashboard and compartment illumination, as well as exterior automotive applications. TELUX LEDs offer designers a choice of 30° or 45° of half intensity. With excellent luminous flux performance and extended -40°C to +100°C operating temperature, TELUX is binned for luminous flux and color to achieve the best homogenous light appearance for an application.



Features ▶

- Supreme heat dissipation allows applications at high ambient temperatures
- Luminous flux and color categorized for each tube
- High operating temperature: $T_j + 100^\circ\text{C}$
- Excellent luminous flux performance

Benefits ▶

- Robust, vibration resistant 4-pin packaging
- Utilizes highly-efficient InGaN/TAG and AlInGaP technologies
- Chromaticity coordinate categorized
- Bin structures allow homogenous light appearance

Applications ▶

- Exterior lighting
- Interior architectural illumination and accent lighting
- Appliance and compartment lighting
- Automotive dashboard, display, and exterior lighting

Product Specifications ▶

Part Number	Package Type	Color	Color Temp. (°K)	Dominant Wavelength (nm)	Max. Current (mA)	Tested Current (mA)	Forward Voltage (V)	Viewing Angle (deg)	Luminous Flux (lm)	Luminous Intensity (mcd)	Markets	
TLWR7600	TELUX 4-pin	Red	NA	611-634	70	70	2.2	60	2.1	NA	CL FL TR SI	
TLWR7900		Red	NA	611-634	70	70	2.2	90	2.1	NA	CL TR BL SI	
TLWR8600		Red	NA	611-634	70	70	2.2	60	3.0	NA	CL TR BL SI	
TLWR8900		Red	NA	611-634	70	70	2.2	90	3.0	NA	CL TR BL SI	
TLWR9600		Red	NA	611-634	70	70	2.2	60	3.2	NA	CL TR BL SI	
TLWR9900		Red	NA	611-634	70	70	2.2	90	3.2	NA	CL TR BL SI	
TLWY7600		Yellow	NA	585-597	70	70	2.1	60	1.4	NA	CL TR BL SI	
TLWY7900		Yellow	NA	585-597	70	70	2.1	90	1.4	NA	CL TR BL SI	
TLWY8600		Yellow	NA	585-597	70	70	2.1	60	3.0	NA	CL TR BL SI	
TLWY8900		Yellow	NA	585-597	70	70	2.1	90	3.0	NA	CL TR BL SI	
VLWTG9600		Green	NA	509-535	70	70	3.9	60	2.5	NA	CL TR BL SI	
VLWTG9900		Green	NA	509-535	70	70	3.9	90	2.5	NA	CL TR BL SI	
VLWW9600		White	$x=0.266/y=0.232$ to $x=0.352/y=0.357$	NA	NA	50	50	4.3	60	1.5	NA	CL TR BL SI
VLWW9601		White	$x=0.266/y=0.232$ to $x=0.352/y=0.357$	NA	NA	50	50	4.3	60	2.0	NA	CL TR BL SI
VLWW9900		White	$x=0.266/y=0.232$ to $x=0.352/y=0.357$	NA	NA	50	50	4.3	90	1.5	NA	CL TR BL SI

MARKETS LEGEND

CL COMMERCIAL LIGHTING

FL FLASHLIGHTS

TR TRANSPORTATION

BL BACKLIGHTING

SI SIGNAGE

Vishay 1W Little Star® and 1/2W CLCC-6 Power SMD LEDs



Vishay's power SMDs are among the most robust and light efficient LEDs in the market. With an extremely high level of brightness and an ultra-low profile, the 1W Little Star® is highly suitable for conventional and specialized lighting applications. The 1/2W CLCC-6 has a ceramic package that is ideal for light source applications with high thermal considerations. The reflector inside Vishay's Power SMDs are a mixture of silicone and TAG phosphor, enabling a high service life of up to 50,000 hours.

Features ▶

- High-flux output
- Very low-thermal resistance
- Luminous intensity and color grouping
- Lead-free device
- Automotive qualified AEC-Q101

Benefits ▶

- High-brightness white products in neutral and warm white color temperatures
- Slim package profiles, including ultra slim profile CLCC6
- Long life up to 50K hours
- Optical efficiency 52 lm/W
- Utilizes highly efficient InGaN/TAG technology

Applications ▶

- Lighting: general, architecture, garden
- White goods: refrigerator, oven, microwave
- Automotive interior and exterior
- Handheld flashlights, camera flash
- Luminaires



Little Star®

Product Specifications ▶

Part Number	Package Type	Color	Color Temp. (°K)	Dominant Wavelength (nm)	Max. Current (mA)	Tested Current (mA)	Forward Voltage (V)	Viewing Angle (deg)	Luminous Flux (lm)	Luminous Intensity (mcd)	Markets
VLMW711ADAF-GS08	Power SMD	White	x=0.278/y=0.243 to x=0.340/y=0.396	NA	350	350	3.6	120	39-97	14,000-28,500	CL FL TR BL SI
VLMW711AD-GS08		White	x=0.278/y=0.243 to x=0.340/y=0.396	NA	350	350	3.6	120	39-52	14,000-18,000	CL FL TR BL SI
VLMW711AE-GS08		White	x=0.278/y=0.243 to x=0.340/y=0.396	NA	350	350	3.6	120	52-71	18,000-22,400	CL FL TR BL SI
VLMW71ACAE-GS08		Warm white	x=0.400/y=0.340 to x=0.440/y=0.430	NA	350	350	3.6	120	33-71	11,250-22,400	CL FL TR BL SI
VLMW71AC-GS08		Warm white	x=0.400/y=0.340 to x=0.440/y=0.430	NA	350	350	3.6	120	33-39	11,250-14,000	CL FL TR BL SI
VLMW71AD-GS08		Warm white	x=0.400/y=0.340 to x=0.440/y=0.430	NA	350	350	3.6	120	39-52	14,000-18,000	CL FL TR BL SI
VLMW71AE-GS08		Warm white	x=0.400/y=0.340 to x=0.440/y=0.430	NA	350	350	3.6	120	52-71	18,000-22,400	CL FL TR BL SI
VLMW61CADB-3K8L	CLCC6 SMD	White	x=0.266/y=0.252 to x=0.352/y=0.357	NA	150	140	3.3	120	8.8-22.3	2,800-7,100	FL TR BL SI
VLMW61CBEA-3K8L		White	x=0.266/y=0.252 to x=0.352/y=0.357	NA	150	140	3.3	120	11.1-28.3	3,550-9,000	FL TR BL SI
VLMW611BADAK3L5-08		Warm white	x=0.373/y=0.338 to x=0.399/y=0.412	NA	150	140	3.3	120	5.4-16.8	1,800-5,600	FL TR BL SI
VLMW611CADBK3L5-08		Warm white	x=0.373/y=0.338 to x=0.399/y=0.412	NA	150	140	3.3	120	8.7-22.3	2,800-7,100	FL TR BL SI
VLMW62CADB-3K8L		White	x=0.266/y=0.252 to x=0.352/y=0.357	NA	150	140	3.3	120	8.8-22.3	2,800-7,100	FL TR BL SI
VLMW62CBEA-3K8L		White	x=0.266/y=0.252 to x=0.352/y=0.357	NA	150	140	3.3	120	11.1-28.3	3,550-9,000	FL TR BL SI

MARKETS LEGEND

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CLCC-6