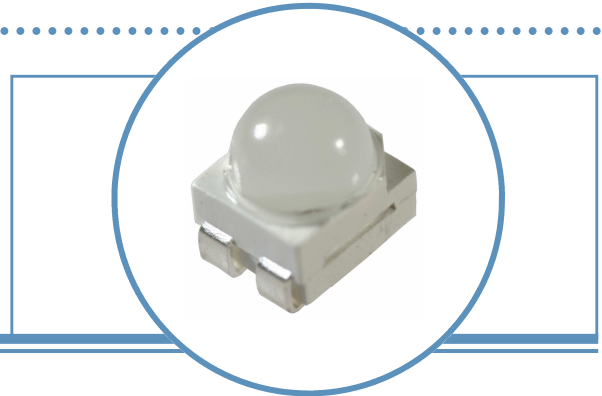


# PLCC4 Surface Mount LED with Dome Lens

## OVSA1xBLCR8 Series

- High intensity with low power consumption
- PLCC4 packaged in 8 mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Dimensions: 3.5 x 2.8 x 1.95 mm
- 60° viewing angle



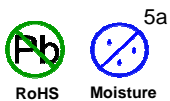
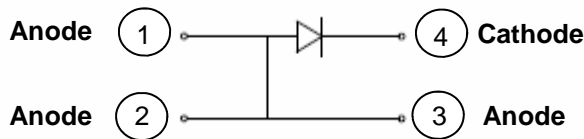
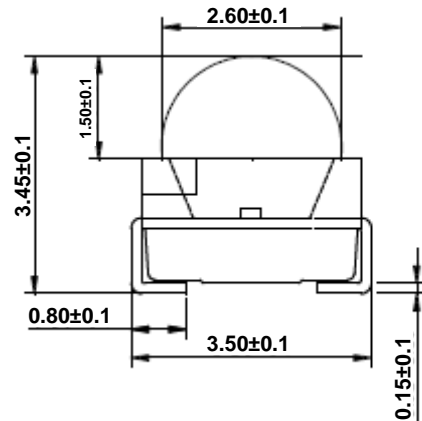
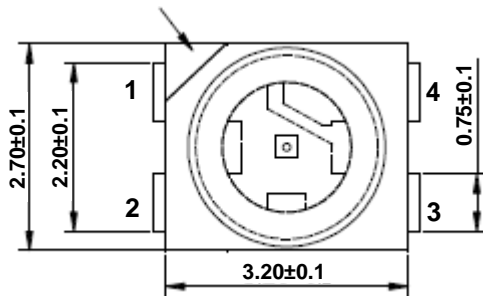
The **OVSA1xBLCR8** series is designed for focused, uniform light output. Its internal reflector and colorless clear lens optimize luminous intensity and make it ideal for backlighting applications and for coupling with light guides.

### Applications

- Traffic lights
- Signal and symbol luminaire
- Mono-color indicators
- Backlighting (LCD, switches, displays, illuminated advertising)
- Interior automotive lighting (instrumentation clusters)
- Safety marker lights (steps, exit ways)

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color
OVSA1ABLCR8	AllnGaP	Amber	5000	Water Clear
OVSA1SBLCR8	AllnGaP	Red	3700	Water Clear

Package Marking



**DO NOT LOOK DIRECTLY AT RED WITH UNSHIELDED EYES OR DAMAGE TO RETINA MAY OCCUR.**

OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

# PLCC4 Surface Mount LED

## OVSA1xBLCR8 Series



### Absolute Maximum Ratings

T<sub>A</sub> = 25° C unless otherwise noted

Storage Temperature Range	-40 ~ +100 °C
Operating Temperature Range	-40 ~ +100 °C
Reverse Voltage	5 V
Continuous Forward Current	70 mA
Peak Forward Current (Pulse width ≤10 msec, duty cycle ≤10%)	200 mA
Power Dissipation	210 mW
Thermal Resistance Junction to Solder <sup>1.</sup>	150° C/W
Electrostatic Discharge Classification (MIL-STD-883E)	Class 2
LED Junction Temperature	110° C
Lead Soldering Temperature	250° C / 10 seconds

Note:

1. Rth test condition: Mounted on PC board FR 4 (pad size ≥ 16 mm<sup>2</sup>)

### Electrical Characteristics

T<sub>A</sub> = 25° C unless otherwise noted

SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS	CONDITIONS
I <sub>V</sub>	Luminous Intensity	Red	2240	3700		mcd	I <sub>F</sub> = 50 mA
		Amber	3550	5000			
V <sub>F</sub>	Forward Voltage		----	2.5	3.0	V	I <sub>F</sub> = 50 mA
I <sub>R</sub>	Reverse Current		----	----	10	μA	V <sub>R</sub> = 5 V
λ <sub>D</sub>	Dominant Wavelength	Red	618	624	630	nm	I <sub>F</sub> = 50 mA
		Amber	584	591	599		
2Θ <sub>½H-H</sub>	50% Power Angle			60		deg	I <sub>F</sub> = 50 mA

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# PLCC4 Surface Mount LED

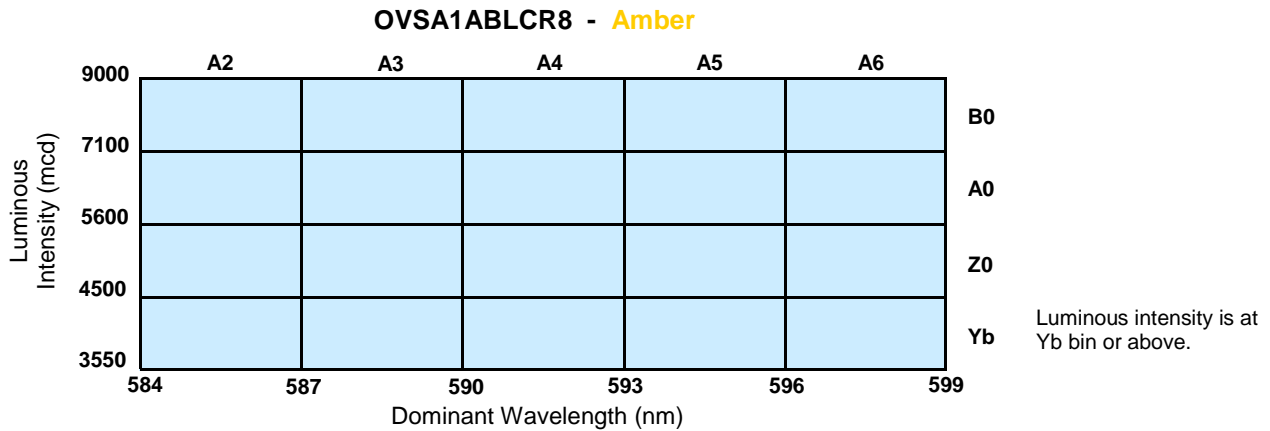
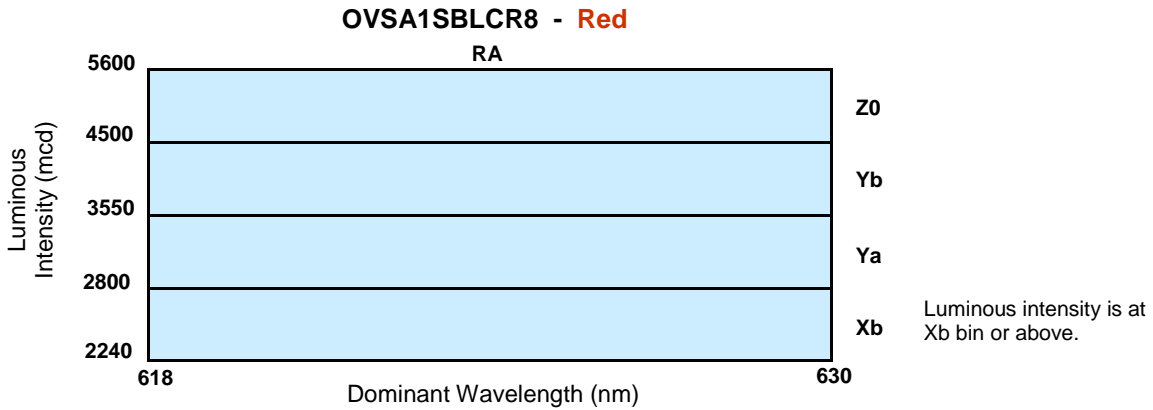
## OVSA1xBLCR8 Series



### Standard Bins ( $I_F = 50 \text{ mA}$ )

Lamps are sorted to luminous intensity ( $I_V$ ) and dominant wavelength ( $\lambda_D$ ) bins shown.

Orders for OVSA1SBLCR8 (Red) & OVSA1ABLCR8 (Amber) may be filled with any or all bins contained as below.



### Important Notes:

1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
2. To designate luminous intensity ranks, please contact OPTEK.

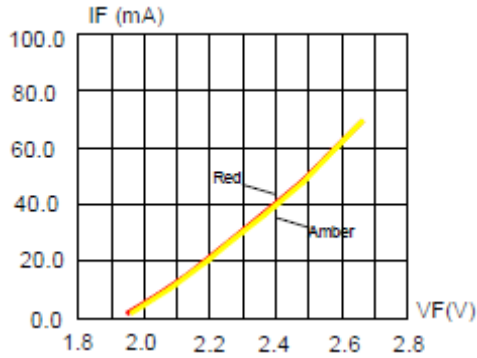
OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

# PLCC4 Surface Mount LED

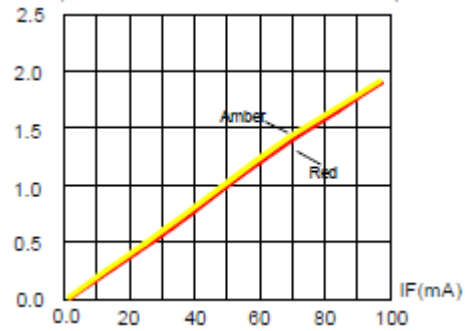
## OVSA1xBLCR8 Series



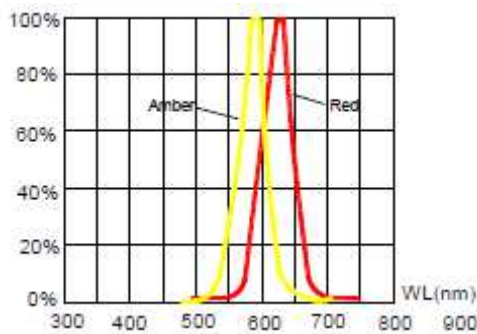
### Typical Electro-Optical Characteristics Curves for OVSA1SBLCR8 (Red) & OVSA1ABLCR8 (Amber)



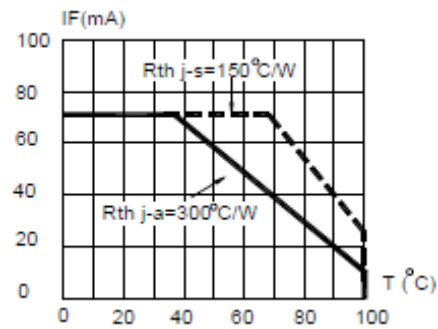
Forward Current vs. Forward Voltage



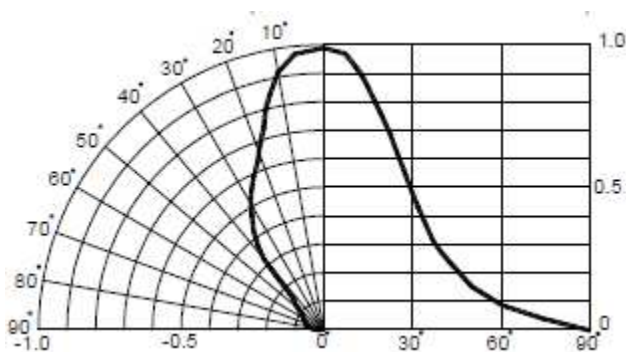
Relative Luminous Intensity vs. Forward Current



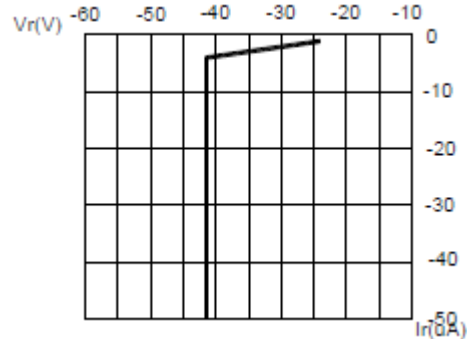
Relative Luminous Intensity vs. Wavelength



Red & Amber Maximum Forward DC Current vs. Ambient



Angular Distribution



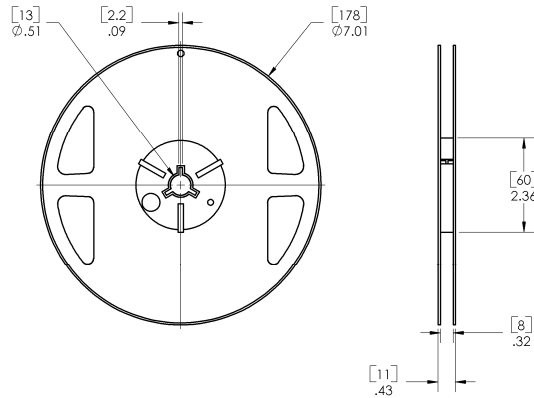
Red & Amber Reverse Current vs. Reverse Voltage

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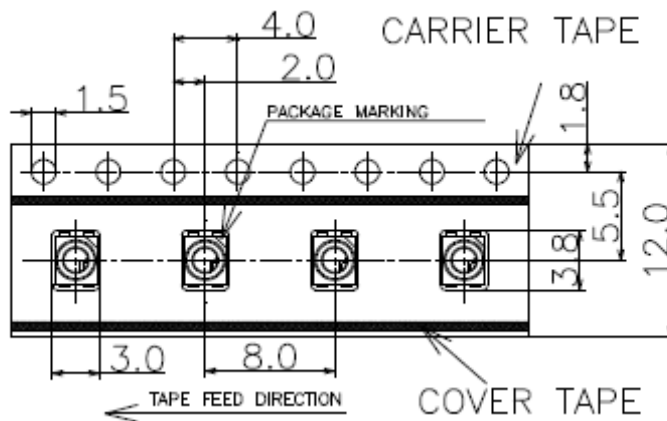
# PLCC4 Surface Mount LED

## OVSA1xBLCR8 Series

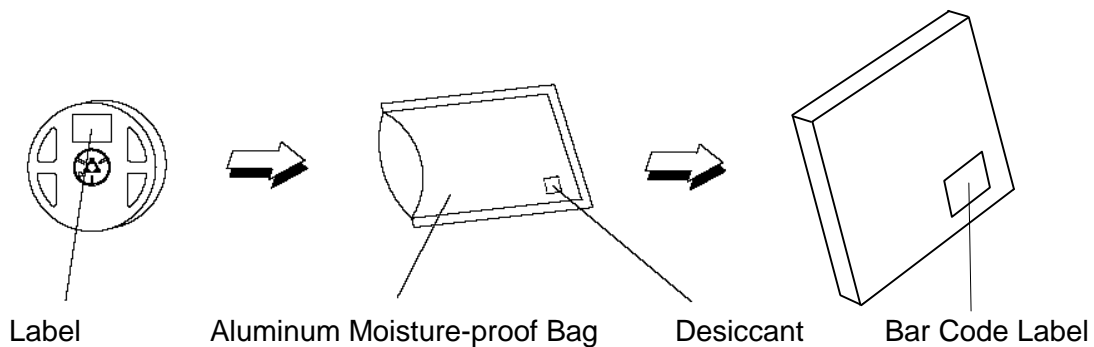
Reel Dimensions: 7-inch reel



Carrier Tape Dimensions: Loaded Quantity 700 pieces per reel



### Moisture Resistant Packaging



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