# Amber PLCC4 Surface Mount LED with Domed Lens



#### **OVSAABLCR8**

- High intensity with low power consumption
- White PLCC4 package with clear domed lens
- Wide viewing angle
- Packaged in 8 mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Compatible with infrared and vapor phase reflow solder process
- Amber (591 nm)



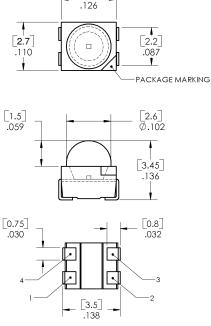
The **OVSAABLCR8** is designed for wide angle, uniform light output. Its internal reflector and colorless clear lens optimize luminous intensity and make it ideal for backlighting applications and for coupling with light guides.

#### **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  |
|-------------|----------|---------------|--------------------|-------------|
| OVSAABLCR8  | AllnGaP  | Amber         | 1800               | Water Clear |

3.2





1, 2, 3 CATHODE 4 ANODE
DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

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

# Amber PLCC4 SMD LED with Domed Lens OVSAABLCR8



# **Absolute Maximum Ratings**

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

| Storage Temperature Range                            | -40 ~ +100° C |
|--|---------------|
| Operating Temperature Range                          | -40 ~ +100° C |
| Soldering Temperature <sup>1</sup>                   | 260°C         |
| Reverse Voltage                                      | 5 V           |
| Continuous Forward Current                           | 70 mA         |
| Peak Forward Current (10% Duty Cycle, PW ≤ 100 µsec) | 200 mA        |
| Power Dissipation                                    | 225 mW        |

#### Note:

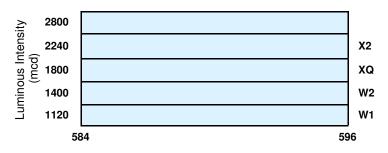
#### **Electrical Characteristics**

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

| SYMBOL         | PARAMETER           | MIN  | TYP  | MAX | UNITS | CONDITIONS             |
|----------------|---------------------|------|------|-----|-------|------------------------|
| I <sub>V</sub> | Luminous Intensity  | 1120 | 1800 |     | mcd   | I <sub>F</sub> = 50 mA |
| $V_{F}$        | Forward Voltage     |      | 2.6  | 3.2 | ٧     | $I_F = 50 \text{ mA}$  |
| I <sub>R</sub> | Reverse Current     |      |      | 10  | μΑ    | $V_R = 5 V$            |
| $\lambda_{D}$  | Dominant Wavelength |      | 591  |     | nm    | I <sub>F</sub> = 50 mA |
| $\lambda_{P}$  | Peak Wavelength     |      | 596  |     | nm    | I <sub>F</sub> = 50 mA |
| 2 ⊝½           | 50% Power Angle     |      | 60   |     | deg   | I <sub>F</sub> = 50 mA |

### Standard Bins (I<sub>F</sub> = 50 mA)

Lamps are sorted to luminous intensity ( $I_V$ ) and dominant wavelength ( $\lambda_D$ ) bins shown. Orders for OVSAABLCR8 may be filled with any or all bins contained as below.



Luminous intensity is at W1 bin or above.

### Dominant Wavelength $(\lambda_D)$

#### Notes:

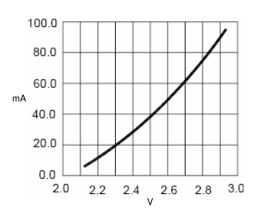
- 1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
- 2. To designate luminous intensity ranks, please contact OPTEK.

<sup>1.</sup> Solder time less than 5 seconds at temperature extreme.

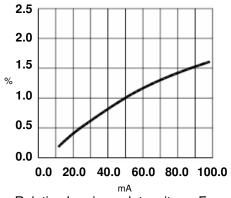
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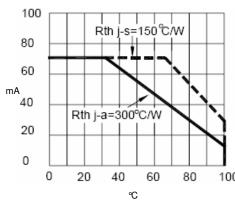
# Typical Electro-Optical Characteristics Curves



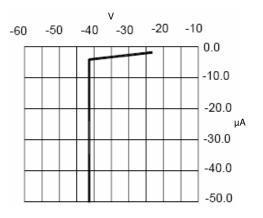
Forward Current vs Forward Voltage



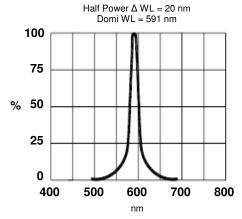
Relative Luminous Intensity vs Forward Current



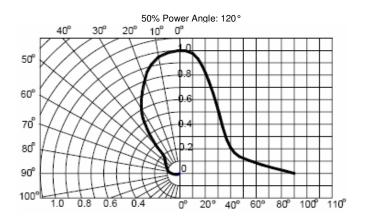
Maximum Forward DC Current vs Ambient Temperature



Reverse Current vs Reverse Voltage



Relative Luminous Flux vs Wavelength

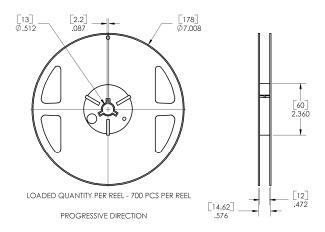


**Spatial Distribution** 

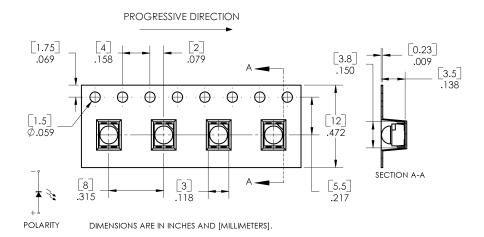
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### Reel Dimensions: 7-inch reel



## Carrier Tape Dimensions: Loaded quantity 700 pieces per reel



# Moisture Resistant Packaging

