

# Blue PLCC4 Surface Mount LED

## OVSABBC2R8

- High intensity with low power consumption
- White 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
- 120° viewing angle

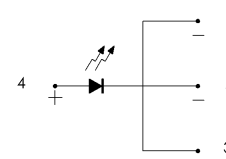
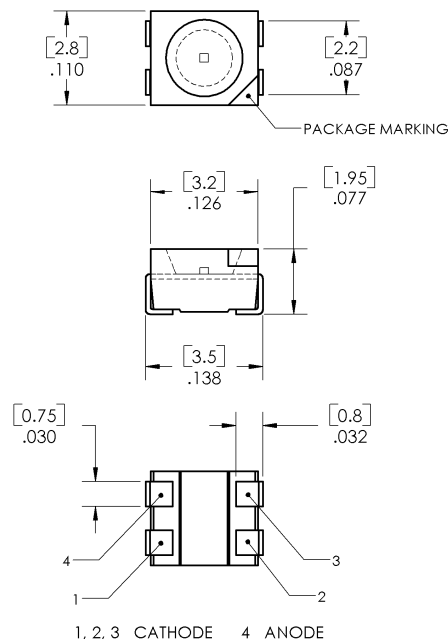


The **OVSABBC2R8** is designed for wide angle, uniform light output. Its internal reflector and colorless clear lens optimize luminous intensity and make it ideal for backlighting applications and for coupling with light guides.

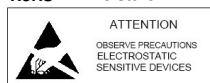
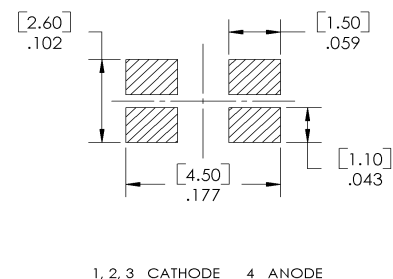
### Applications

- 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
OVSABBC2R8	InGaN	Blue	200	Water Clear



### Recommended Soldering Pad



DIMENSIONS ARE IN: [MILLIMETERS]  
INCHES

**DO NOT LOOK DIRECTLY  
AT LED 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.

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### Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$  unless otherwise noted

Storage Temperature Range	-40 ~ +100 °C
Operating Temperature Range	-40 ~ +100 °C
Junction Temperature	110 °C
Junction/Ambient <sup>1</sup>	350 °C/W
Junction/Solder Point	200 °C/W
Reverse Voltage	5 V
Continuous Forward Current	30 mA
Peak Forward Current (10% Duty Cycle, PW ≤ 100 μ sec)	100 mA
Power Dissipation	140 mW

Note:

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

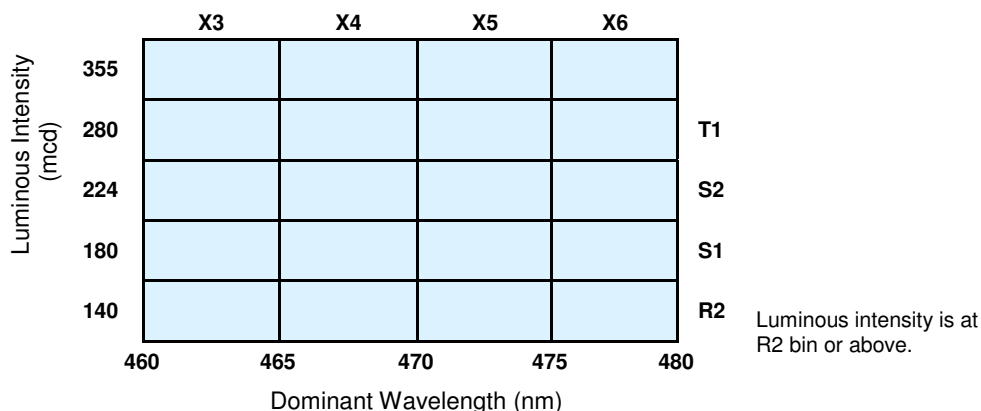
### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
$I_V$	Luminous Intensity	140	200	----	mcd	$I_F = 30\text{ mA}$
$V_F$	Forward Voltage	----	3.9	4.6	V	$I_F = 30\text{ mA}$
$I_R$	Reverse Current	----	----	10	μA	$V_R = 5\text{ V}$
$\lambda_D$	Dominant Wavelength	460	470	480	nm	$I_F = 30\text{ mA}$
$2\theta_{1/2}$	50% Power Angle	----	120	----	deg	$I_F = 30\text{ mA}$

### Standard Bins ( $I_F = 30\text{ mA}$ )

Lamps are sorted to luminous intensity ( $I_V$ ) and dominant wavelength ( $\lambda_D$ ) bins shown. Orders for OVSABBC2R8 may be filled with any or all bins contained as below.

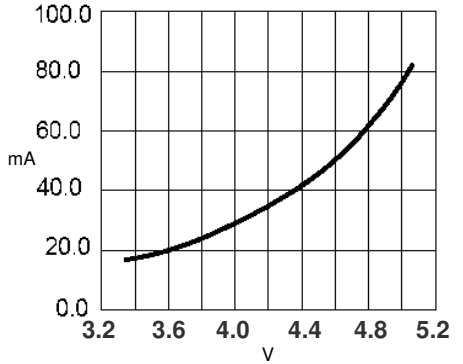


#### Important Notes:

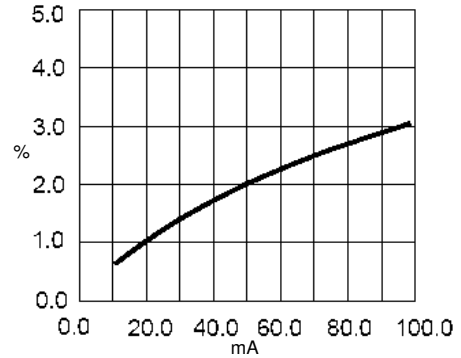
- All ranks will be included per delivery, rank ratio will be based on the chip distribution.
- To designate luminous intensity ranks, please contact OPTeK.

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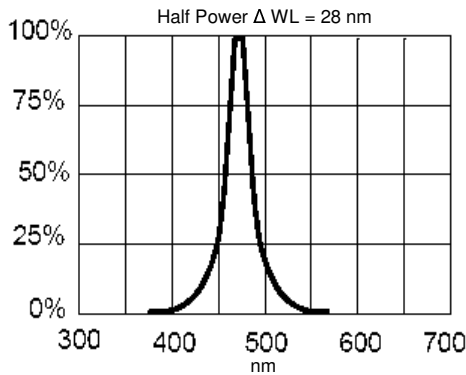
Typical Electro-Optical Characteristics Curves



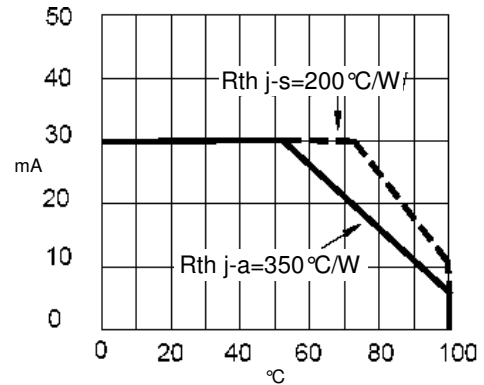
Forward Current vs Forward Voltage



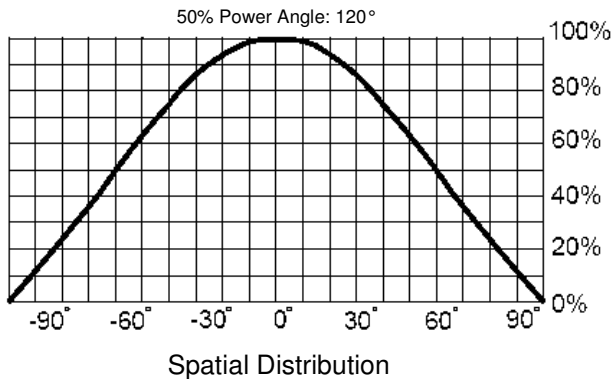
Relative Luminous Intensity vs Forward Current



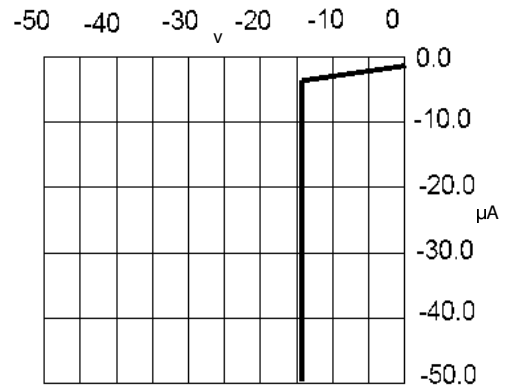
Relative Luminous Intensity vs Wavelength



Maximum Forward DC Current vs Ambient Temperature



Spatial Distribution



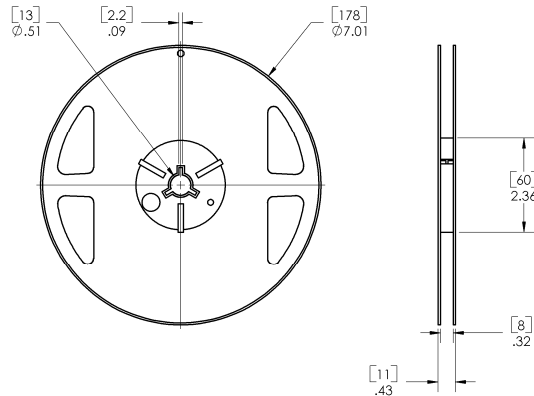
Reverse Current vs Reverse Voltage

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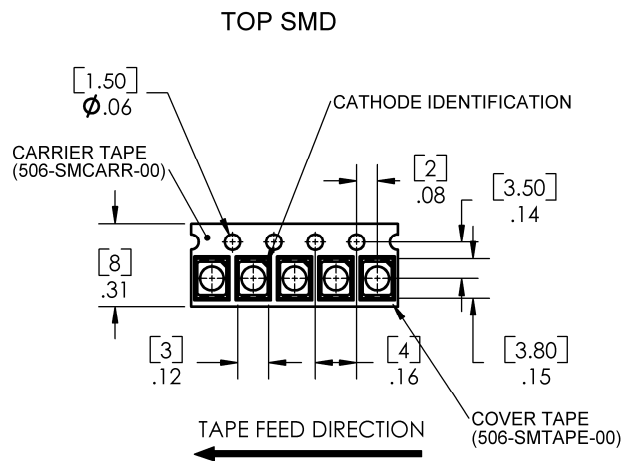
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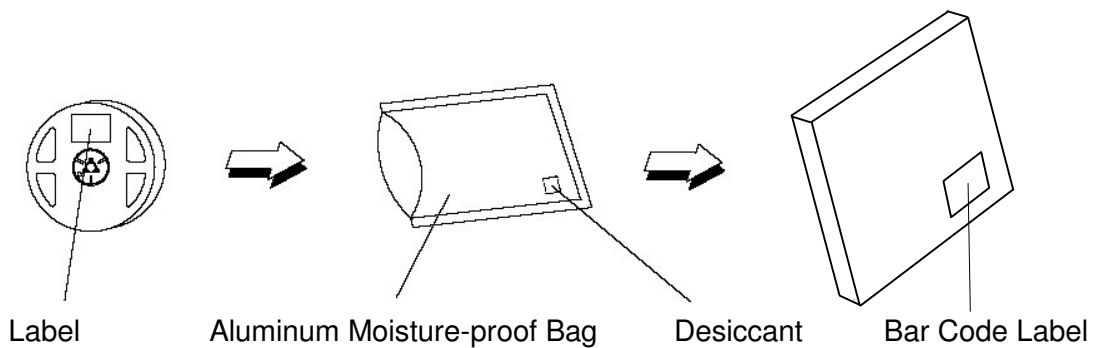
Reel Dimensions: 7-inch reel



Carrier Tape Dimensions: Loaded quantity 2000 pieces per reel



### Moisture Resistant Packaging



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