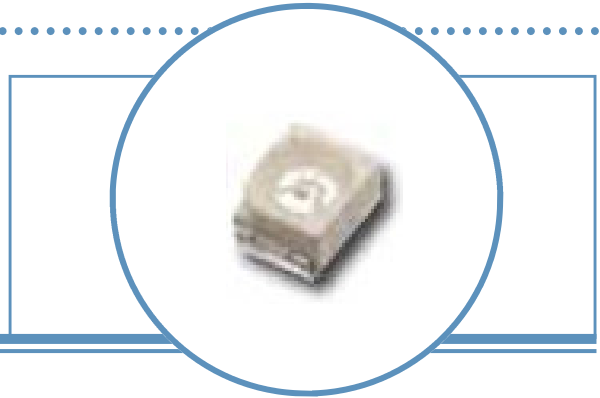


# White PLCC2 Surface Mount LED



## OVS9WBCR9

- High luminous intensity
- High efficiency
- Emission color:  $x = 0.29, y = 0.30$
- Pb-free

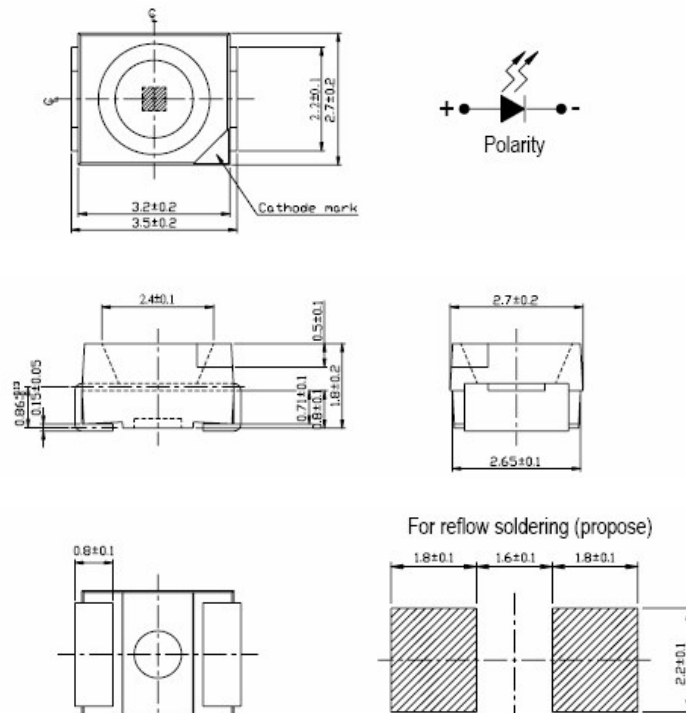


The **OVS9WBCR9** provides high intensity light from a surface mount package. Light output is optimized by an interior reflector and the wide viewing angle adds flexibility for applications ranging from hand-held appliances to automotive interiors.

### Applications

- Backlighting of full color LCD
- Automotive interior lighting
- General lighting
- Coupling into light guides
- Entertainment equipment

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color
OVS9WBCR9	InGaN	White	450	Water Clear



**RoHS** **Moisture**  
 ATTENTION  
 OBSERVE PRECAUTIONS  
 ELECTROSTATIC  
 SENSITIVE DEVICES

**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.

# White PLCC2 Surface Mount LED

## OVS9WBCR9



### Absolute Maximum Ratings

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

Storage Temperature Range	-40 ~ +100° C
Operating Temperature Range	-40 ~ +85° C
Soldering Temperature (5 seconds maximum)	260° C
Reverse Voltage	5 V
Continuous Forward Current	25 mA
Peak Forward Current (Duty 1/10 @ 1 KH <sub>z</sub> )	100 mA
Electrostatic Discharge	150 V
Power Dissipation	110 mW

### Electrical Characteristics

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

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I <sub>V</sub>	Luminous Intensity	240	450	----	mcd	I <sub>F</sub> = 20 mA
V <sub>F</sub>	Forward Voltage	----	3.50	4.3	V	I <sub>F</sub> = 20 mA
I <sub>R</sub>	Reverse Current	----	----	50	μA	V <sub>R</sub> = 5 V
2 Θ <sub>1/2</sub>	50% Power Angle	----	120	----	deg	I <sub>F</sub> = 20 mA
Chromaticity Coordinates	x	----	0.290	----	----	I <sub>F</sub> = 20 mA
	y	----	0.300	----	----	I <sub>F</sub> = 20 mA

### Standard Bins (I<sub>F</sub> = 20 mA)

Lamps are sorted to chromaticity coordinates shown.

Orders for OVS9WBCR9 may be filled with any or all bins contained as below.

Chromaticity Coordinates (x, y)

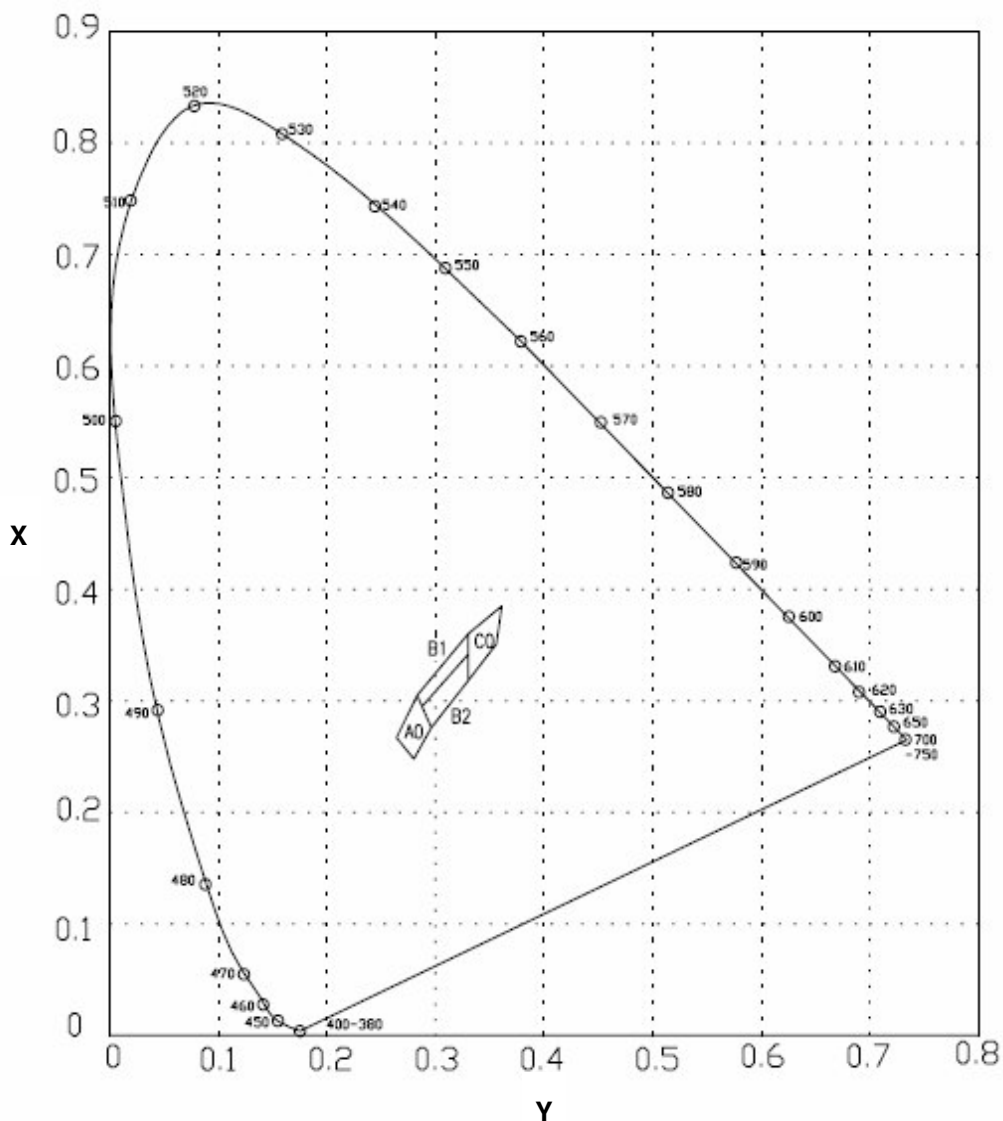
Rank		A0	B1	B2	C0
Chromaticity Coordinates	x	0.280-0.296	0.296-0.330	0.287-0.330	0.330-0.356
	y	0.248-0.276	0.276-0.318	0.295-0.339	0.385-0.351

#### 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.

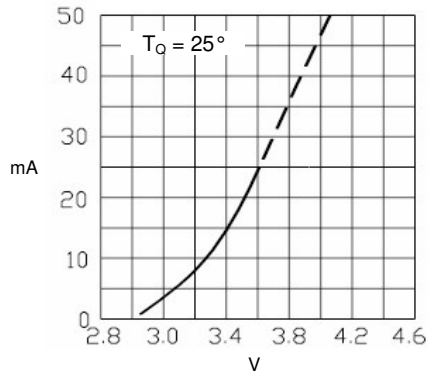
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CIE Chromaticity Diagram

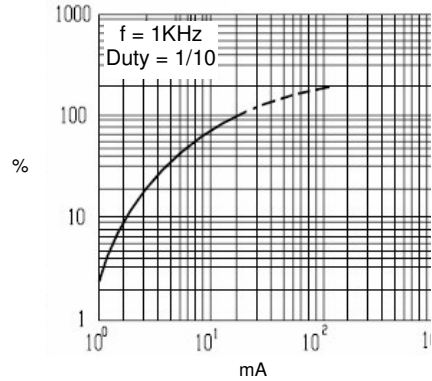


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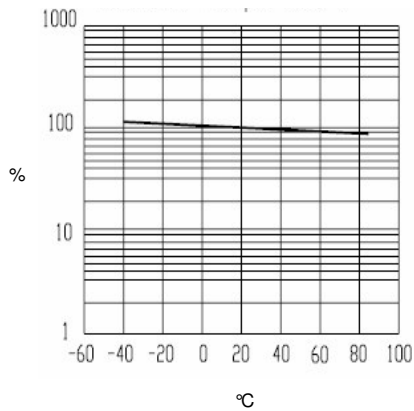
### Typical Electro-Optical Characteristics Curves



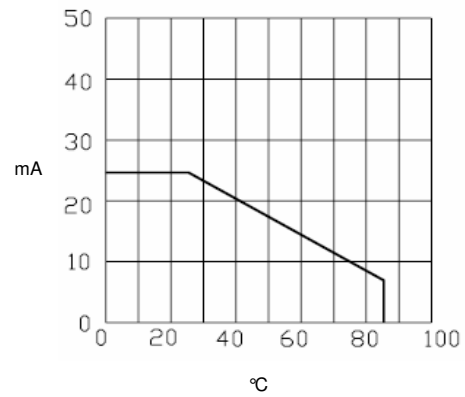
Forward Current vs Forward Voltage



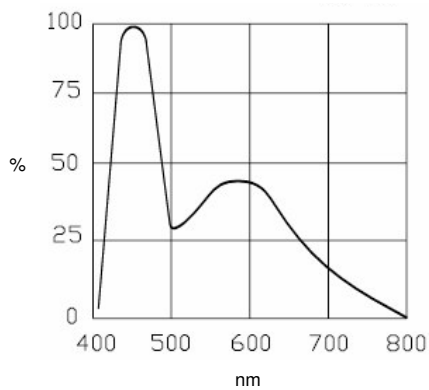
Relative Luminous Intensity vs Forward Current



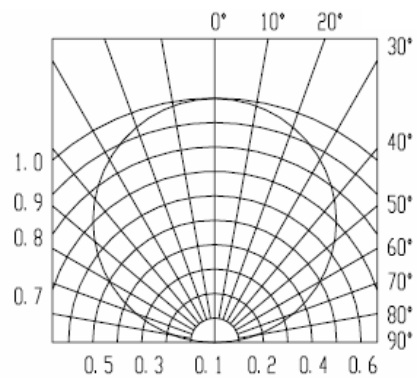
Relative Luminous Intensity vs Ambient Temperature



Forward Current vs Ambient Temperature



Relative Luminous Intensity vs Wavelength



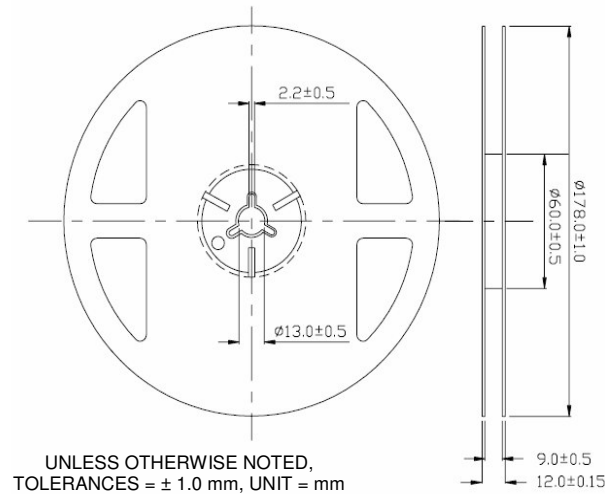
Radiation Diagram

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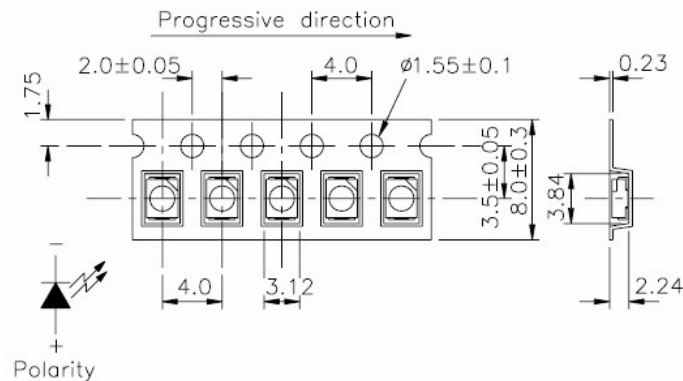
# White PLCC2 Surface Mount LED

## OVS9WBCR9

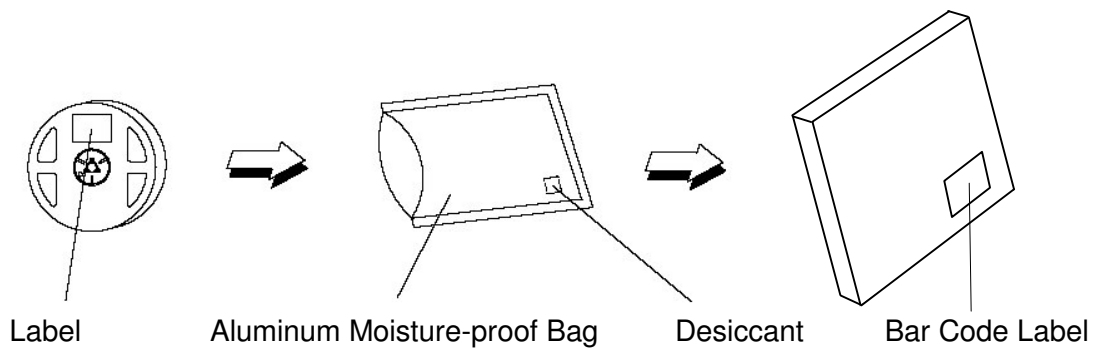
Reel Dimensions: 7-inch reel



Carrier Tape Dimensions: Loaded quantity 2000 pieces per reel



Moisture Resistant Packaging



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