

# .5-Watt SMD 6mm White (120° Viewing Angle)



## OVS5WBCR4

### Features:

- Robust energy-efficient design with long operating life
- Low thermal resistance
- Exceptional spatial uniformity
- Optional optics to suit application

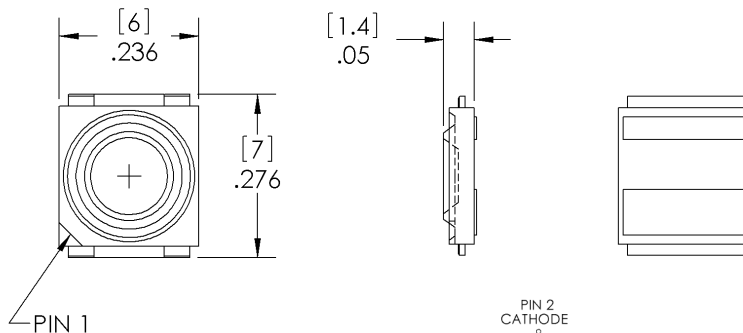
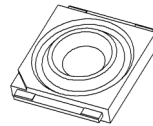


The **OVS5WBCR4** is an energy-efficient packaged LED source that offers high luminance, and a long operating lifespan. This device offers a 120° viewing angle and an ultra-low profile (1.5mm) making it highly suitable for conventional lighting and specialized applications. Optional optics are offered to suit application. Please contact OPTEK for more information.

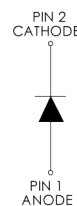
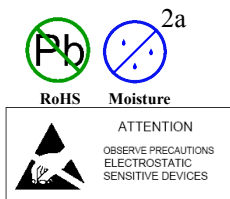
### Applications

- Automotive exterior and interior lighting
- Architectural indoor and outdoor lighting
- General lighting
- Electronic signs and signals

Part Number	Viewing Angle	Emitted Color	Typical Luminous Flux (lm)	Lens Color
OVS5WBCR4	120°	White	35	Water Clear



DIMENSIONS ARE IN INCHES [MM]  
GENERAL TOLERANCES  $\pm .004$  [0.10]



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

### General Note

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## Absolute Maximum Ratings $T_A = 25^\circ\text{C}$

DC Forward Current	180mA
Peak Pulsed Forward Current <sup>1</sup>	500mA
Reverse Voltage	5V
Junction Temperature <sup>2</sup>	125°C
Power Dissipation	700mW
Storage & Operating Temperature	-40 ~ +100°C
Electrostatic Discharge Classification (JEDEC-JESD22-A114F & MIL-STD-883E)	Class 2
Moisture Sensitivity Level (IPC/JEDEC K-STD-020C)	2a /672 Hrs

Notes:

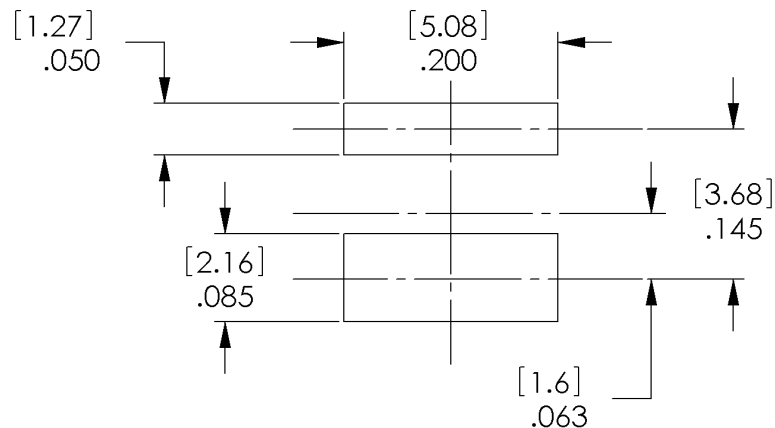
1. Pulse width  $t_p \leq 10\mu\text{s}$ , Duty cycle = 0.1
2. Thermal conductivity = 18K/W for white

Optical and Electrical Characteristics—White ( $I_F = 150\text{ mA}$ ,  $T_A = 25^\circ\text{C}$ )

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS
$V_F$	Forward Voltage	3.0	3.2	4.1	V
$\Phi$	Luminous Flux	23.5	34.8	39.8	lm
$I_R$	Reverse Current at 5V	----	10	----	$\mu\text{A}$
$2\theta_{\frac{1}{2}}$	50% Power Angle	----	120	----	deg

### Solder Pad Design

Note: Metal core circuit board (MCPCB) is highly recommended for high density applications. Please consult sales and marketing for additional information.



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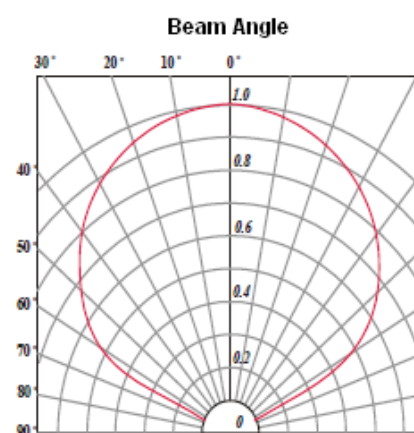
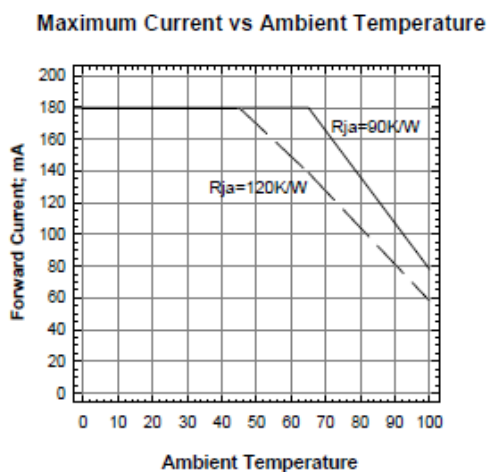
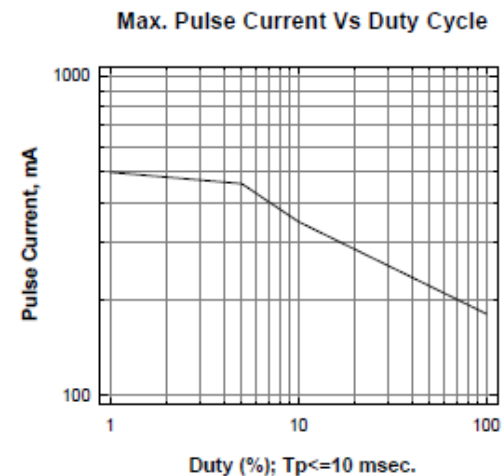
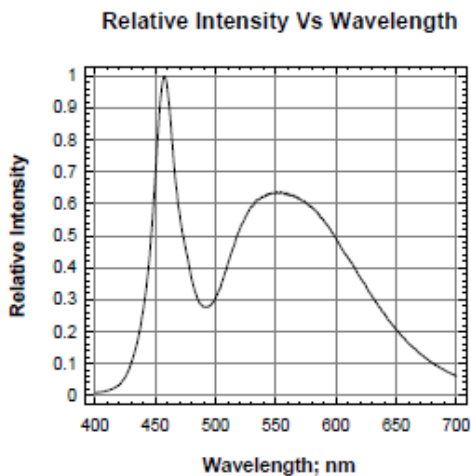
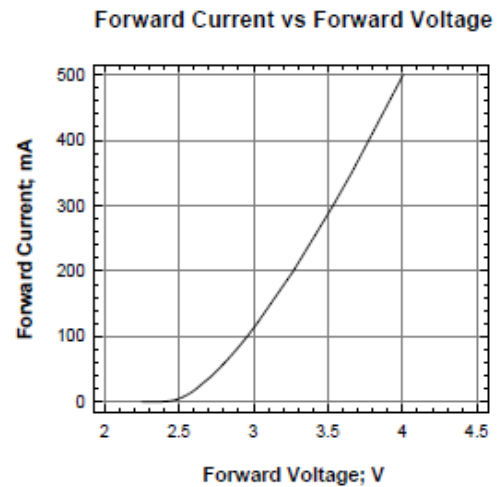
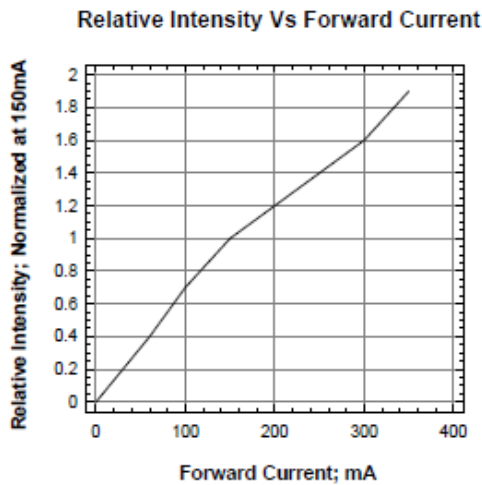
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## Typical Electro-Optical Characteristics Curves—White



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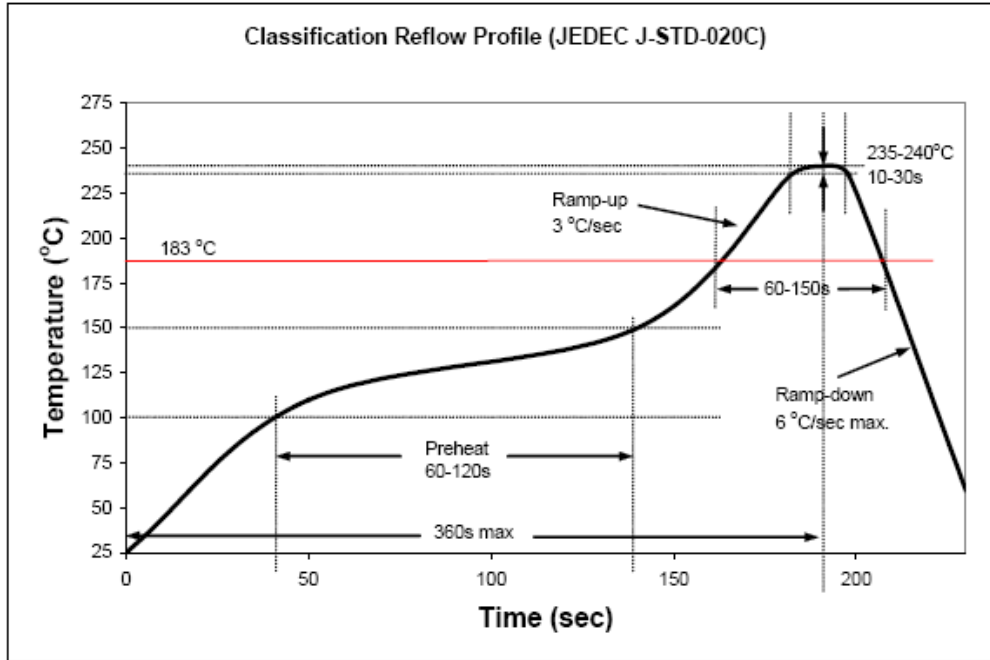
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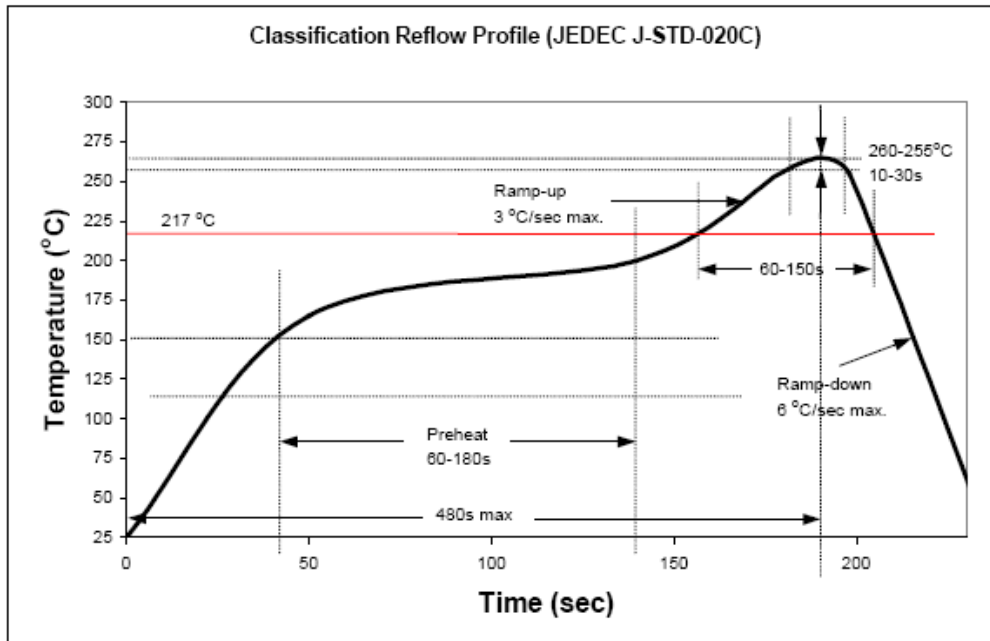


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## Recommended Sn-Pb IR-Reflow Soldering Profile.



## Recommended Pb Free IR-Reflow Soldering Profile.



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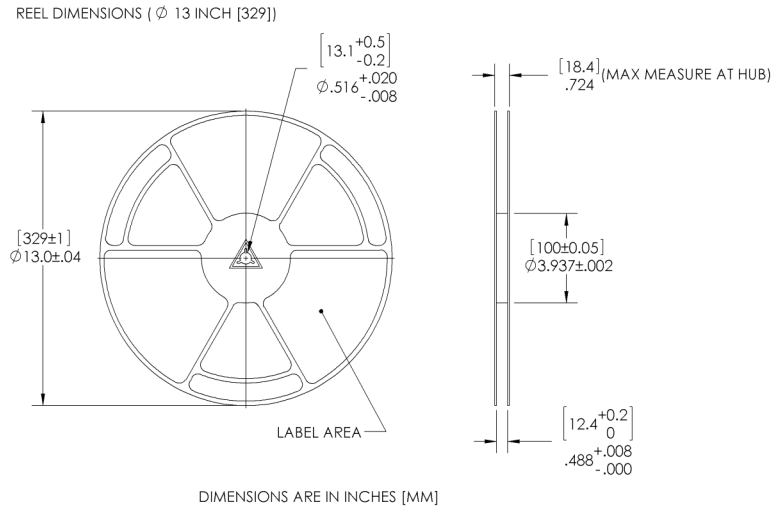
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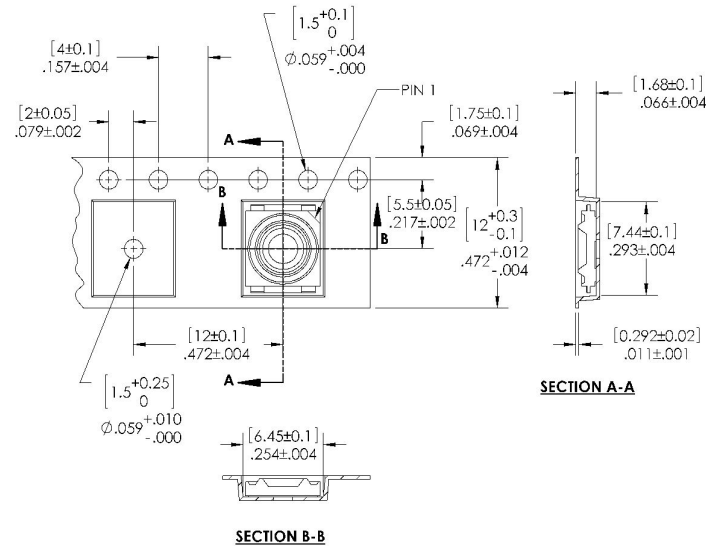


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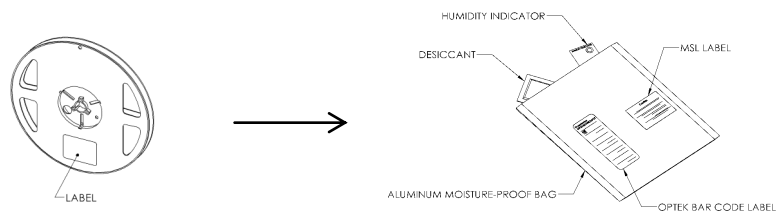
Reel Dimensions: 13 -inch reel



Carrier Tape Dimensions: Loaded quantity 2000 pieces per reel



### Moisture Resistant Packaging



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