



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

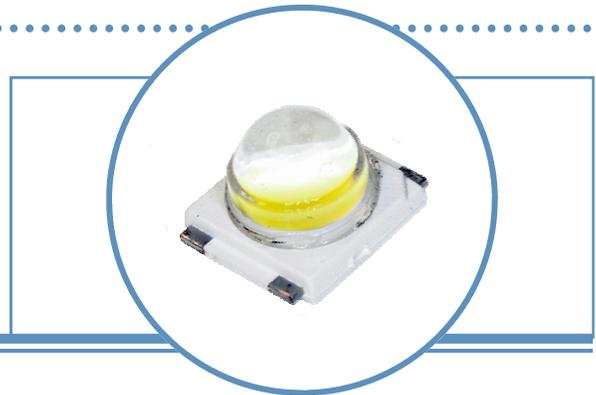
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# .5-Watt SMD 6x6mm 40° Viewing Angle

## OVS5x4CR44 Series

- High brightness surface mount LED
- Low thermal resistance
- Exceptional spatial uniformity
- Optional optics to suit application

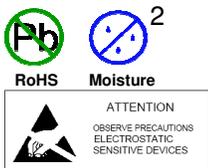
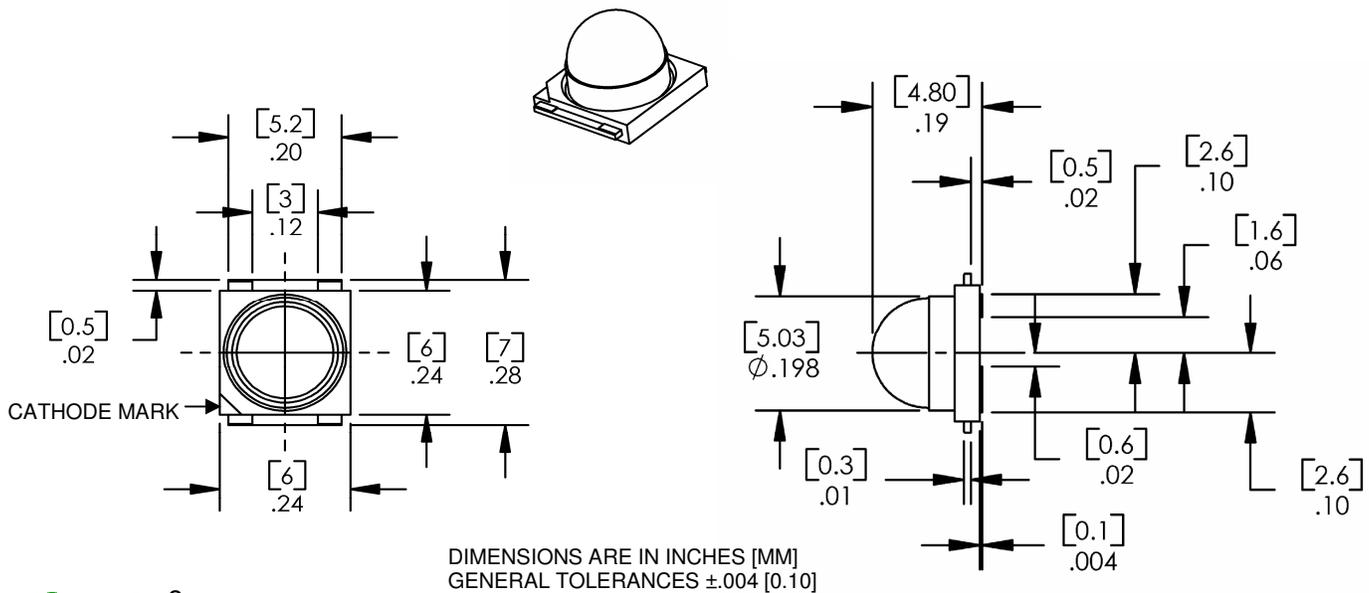


The **OVS5x Series** features energy-efficient packaged LEDs that offer high luminance, and a long operating lifespan. This domed lens package has a 40° viewing angle providing focused emission patterns from a surface mount device. Optional optics are offered to suit application. Please contact OPTEK 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)	Typical On-Axis Intensity (cd)	Lens
OVS5R4CR44	40°	Red	8	9	Water Clear/Dome
OVS5Y4CR44	40°	Yellow	11	14	Water Clear/Dome



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.

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

DC Forward Current	175mA
Peak Pulsed Forward Current <sup>1</sup>	500mA
Reverse Voltage	15V
Junction Temperature <sup>2</sup>	125°C
Power Dissipation	525mW
Storage and Operating Temperature	-40° ~ +100 °C
ESD Threshold (HBM)	2000V

Notes:

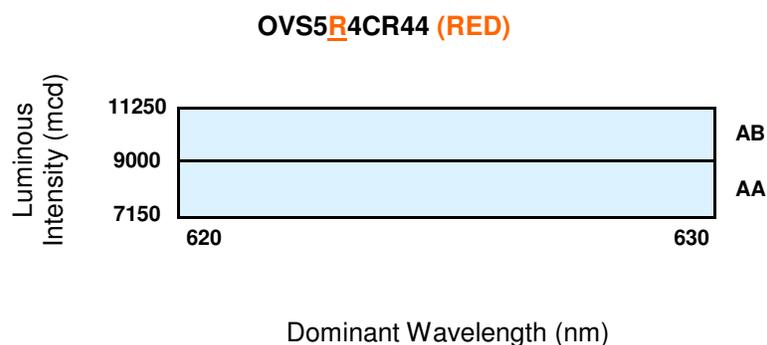
1. Pulse width  $t_p \leq 10\mu\text{s}$ , Duty cycle = 0.1
2. Thermal conductivity = 20K/W

**Optical and Electrical Characteristics** ( $I_F = 175\text{mA}$ ,  $T_A = 25^\circ\text{C}$ )

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	
$V_F$	Forward Voltage	----	2.2	2.8	V	
$\Phi$	Luminous Flux	Red	----	8	lm	
		Yellow	----	11	lm	
$I_V$	Luminous Intensity	Red	7150	9000	11250	cd
		Yellow	11250	14000	18000	cd
$I_R$	Reverse Current at 15V	----	100	----	$\mu\text{A}$	
$2\Theta_{1/2}$	50% Power Angle	----	40	----	deg	

**Standard Bins** ( $I_F = 175\text{mA}$ )

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



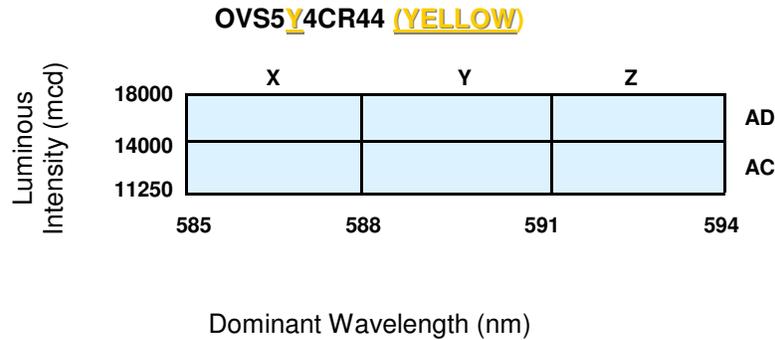
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# .5-Watt SMD 6X6mm

## OVS5X4CR44 Series

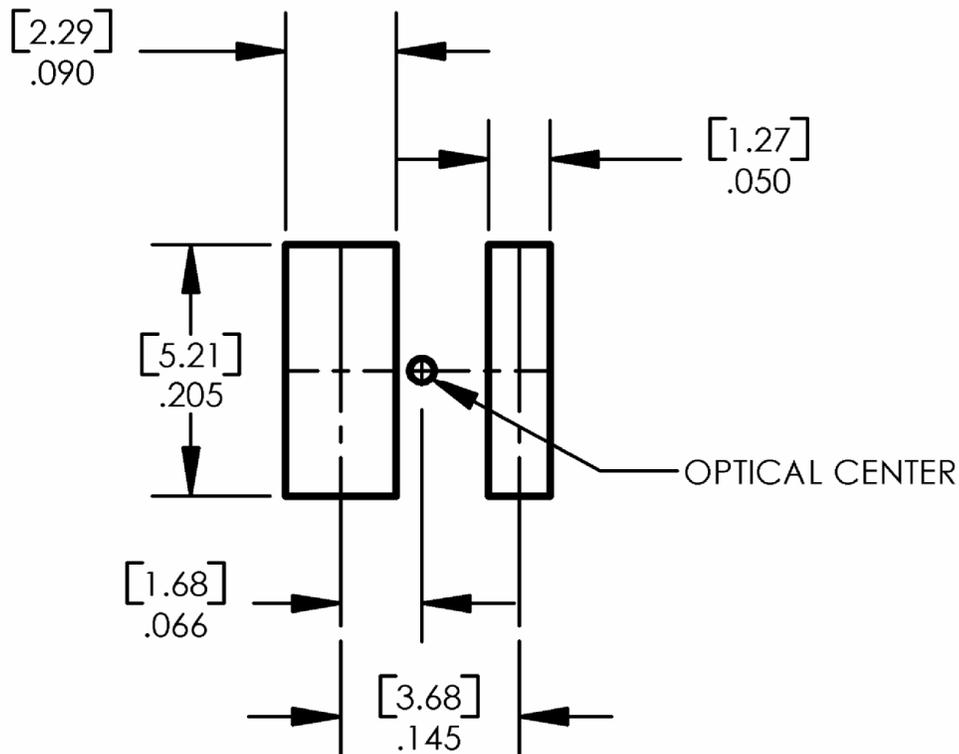
### Standard Bins ( $I_F = 175 \text{ mA}$ )

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



### Solder Pad Design

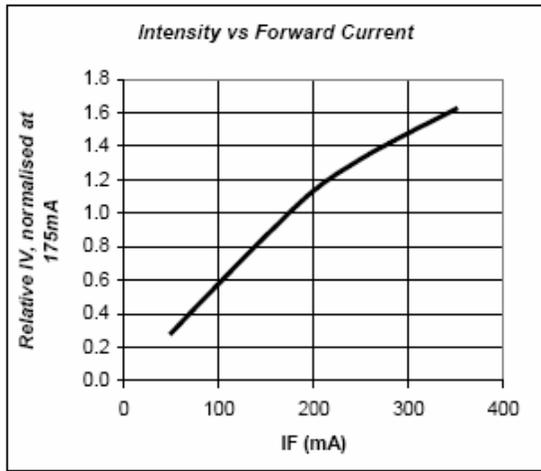
Note: Metal core circuit board (MCPCB) is highly recommended for high density applications.



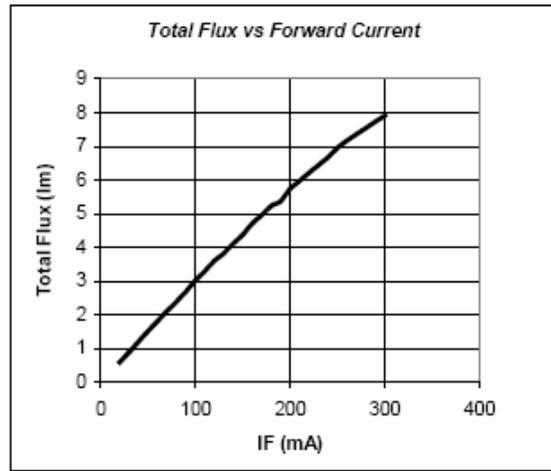
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Typical Electro-Optical Characteristics Curves

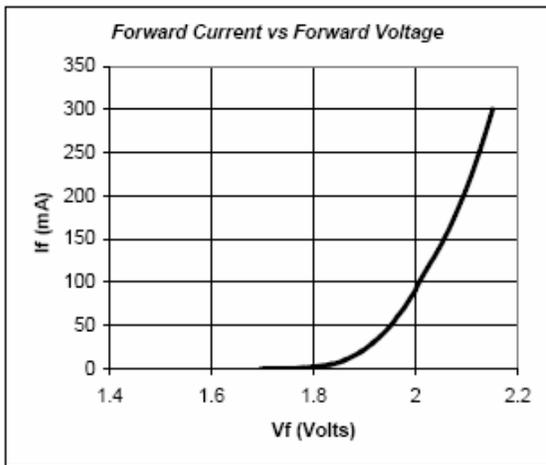
Relative Intensity vs. Forward Current



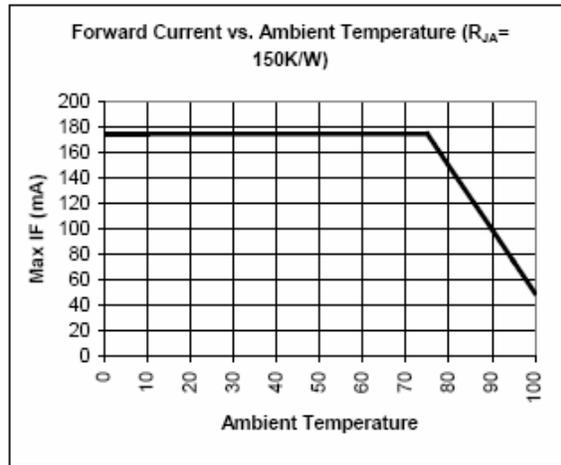
Flux vs. Forward Current



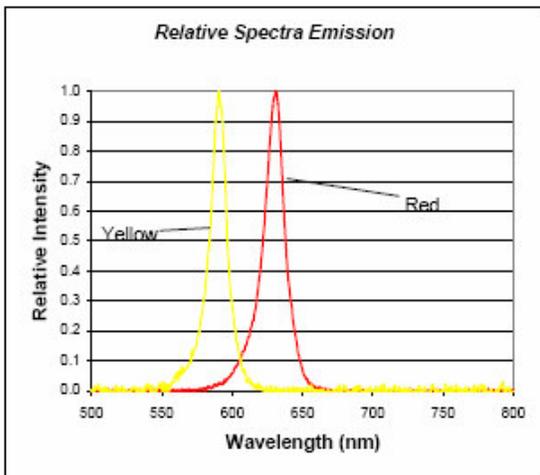
Forward Current vs Forward Voltage



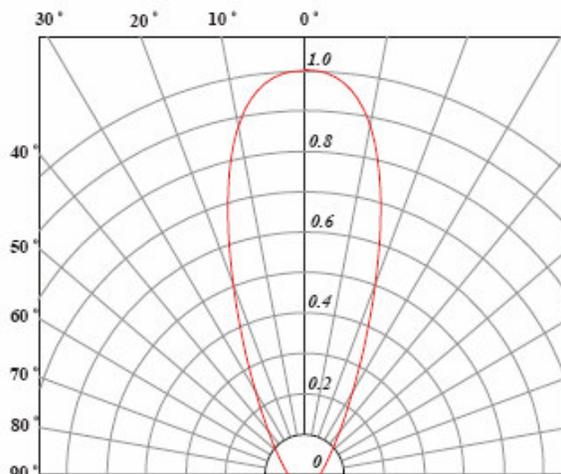
Max Forward Current vs. Ambient Temperature.



Relative Intensity vs. Wavelength

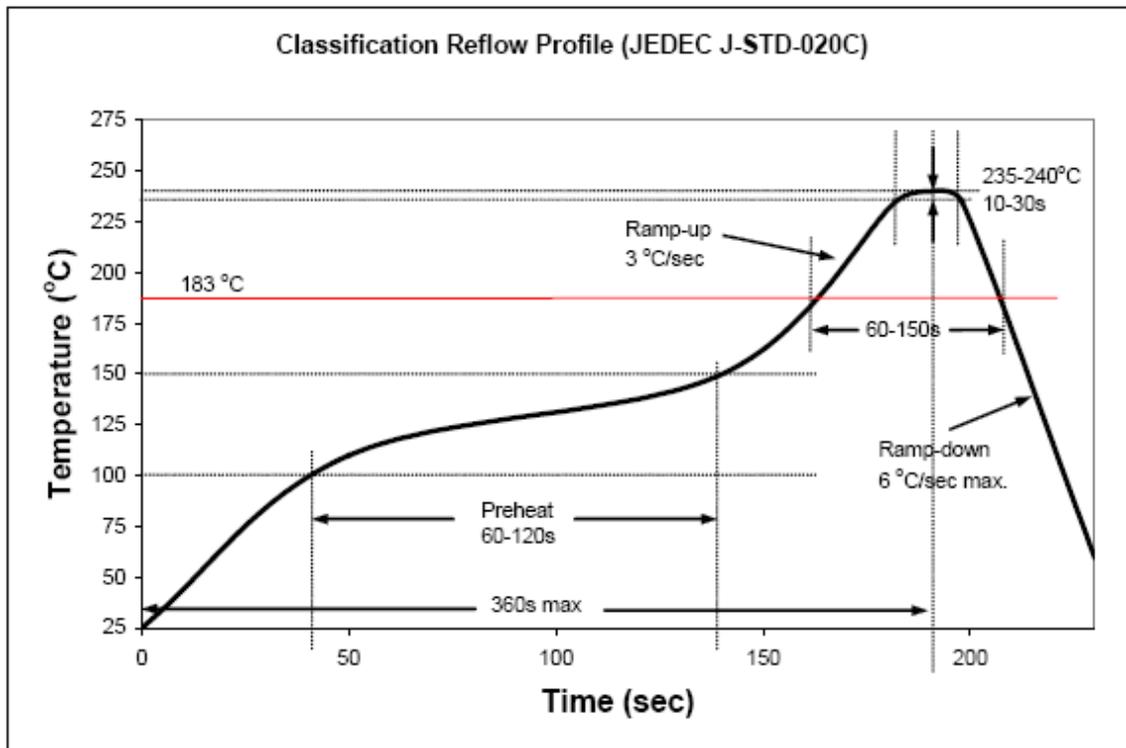


Radiation Pattern.

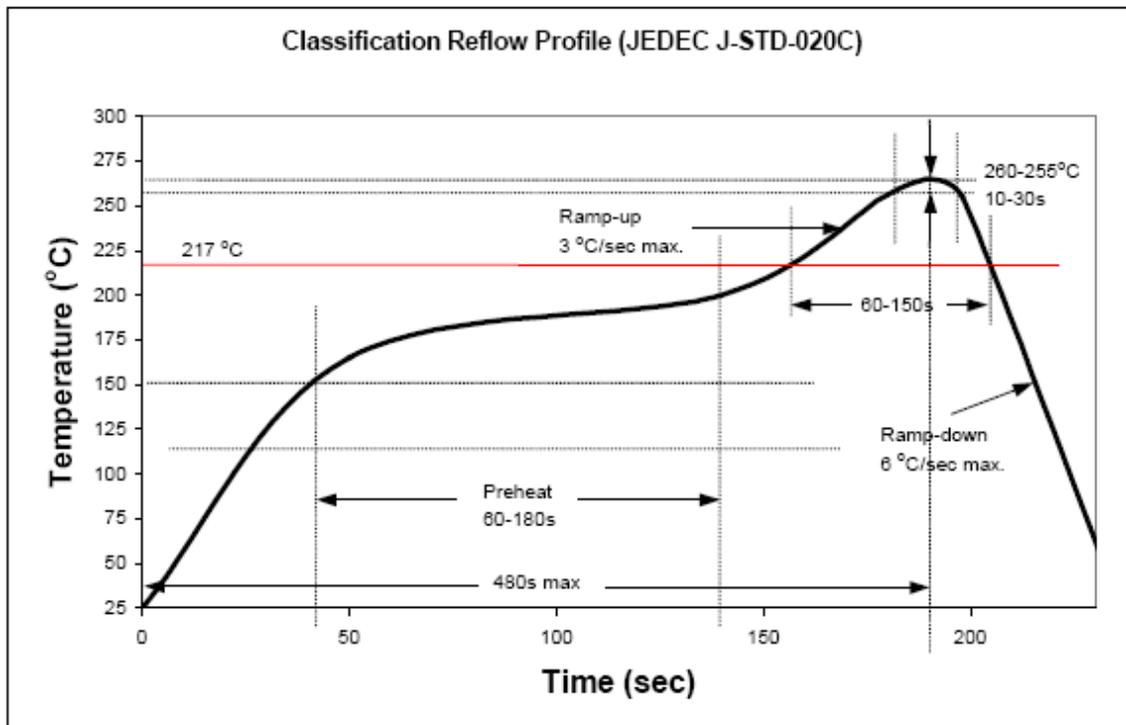


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**Recommended Sn-Pb IR-Reflow Soldering Profile.**



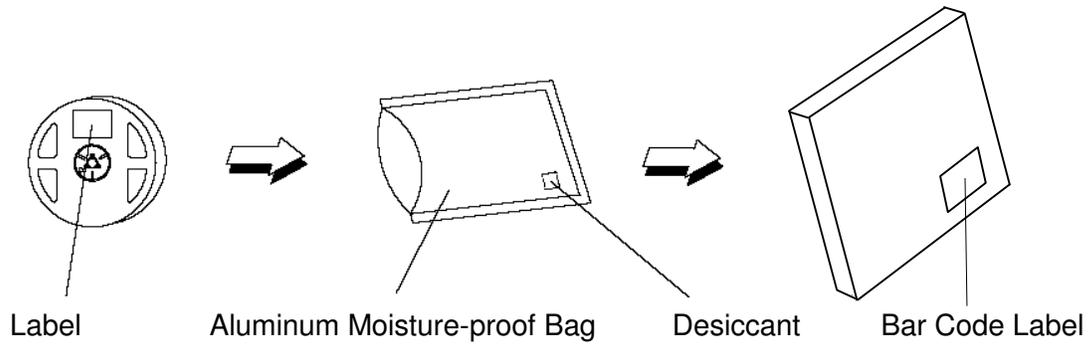
**Recommended Pb Free IR-Reflow Soldering Profile.**



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Moisture Resistant Packaging



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