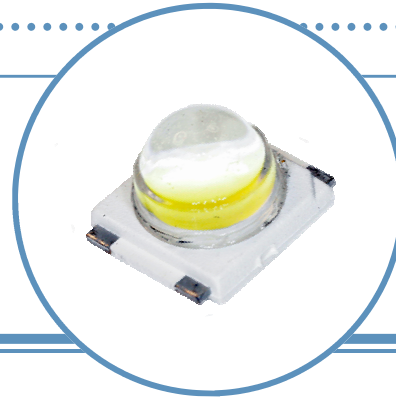


.5-Watt SMD 6x6mm 40° Viewing Angle

OVS5x4CR44 Series

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

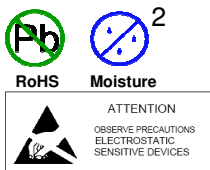
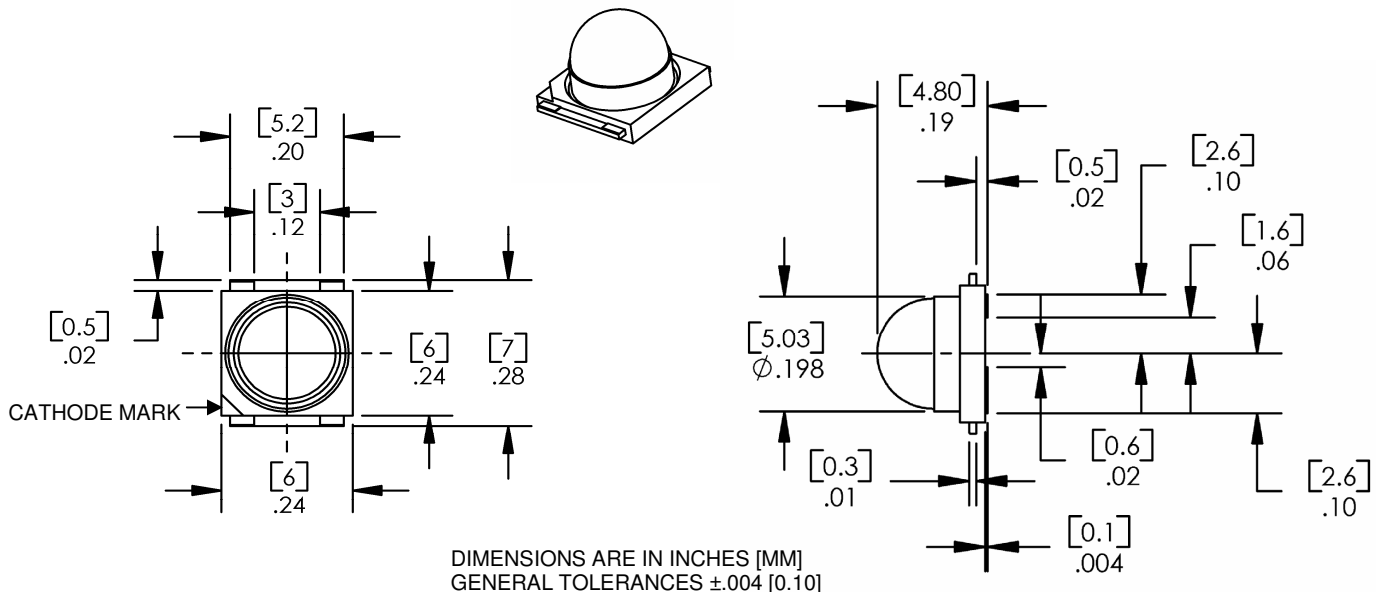


The **OVS5x Series** features energy-efficient packaged LEDs that offer high luminance, and a long operating lifespan. This domed lens package has a 40° viewing angle providing focused emission patterns from a surface mount device. Optional optics are offered to suit application. Please contact OPTEK 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.

.5-Watt SMD 6X6mm

OVS5X4CR44 Series

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

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

Notes:

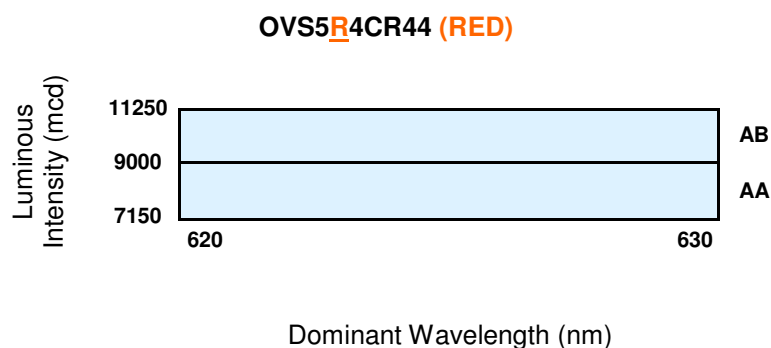
1. Pulse width $t_p \leq 10\mu\text{s}$, Duty cycle = 0.1
2. Thermal conductivity = 20K/W

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
Φ	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	----	μA
$2\Theta_{1/2}$	50% Power Angle		----	40	----	deg

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

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



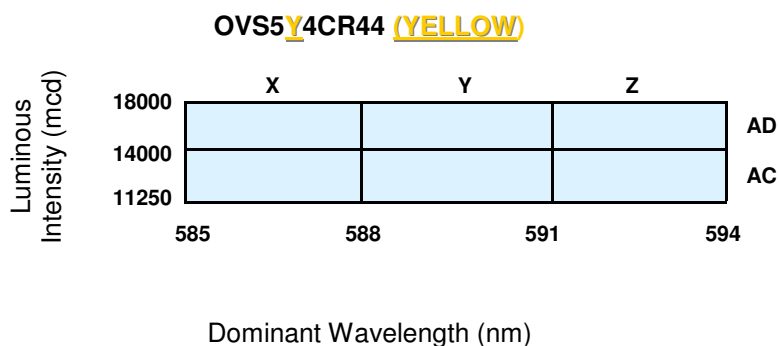
OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

.5-Watt SMD 6X6mm

OVS5X4CR44 Series

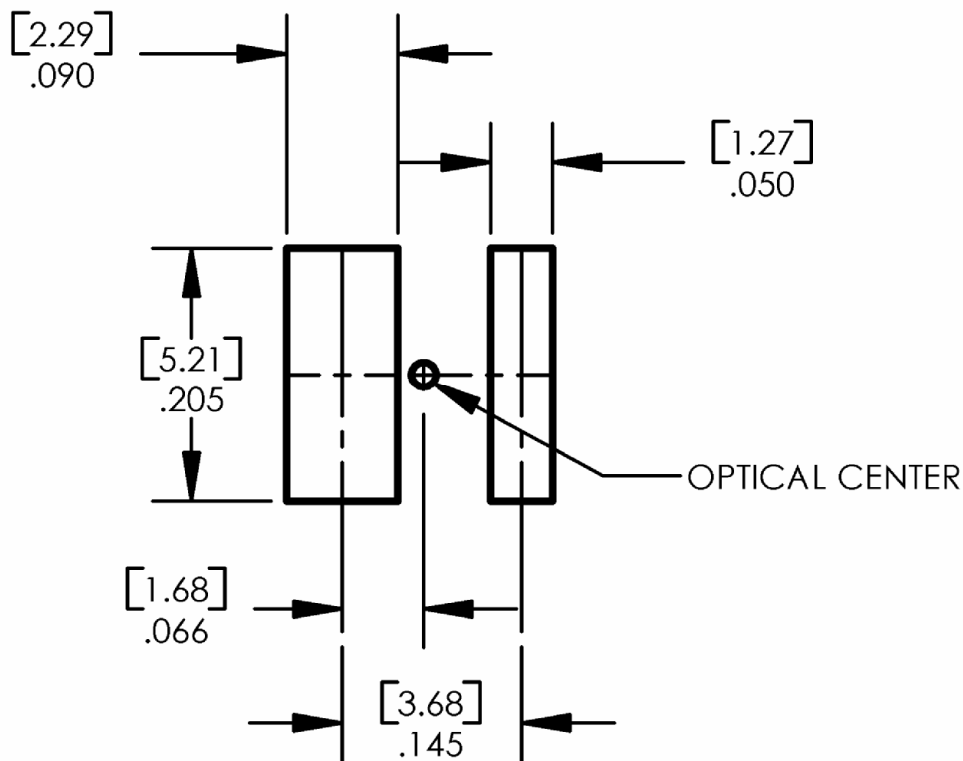
Standard Bins ($I_F = 175 \text{ mA}$)

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



Solder Pad Design

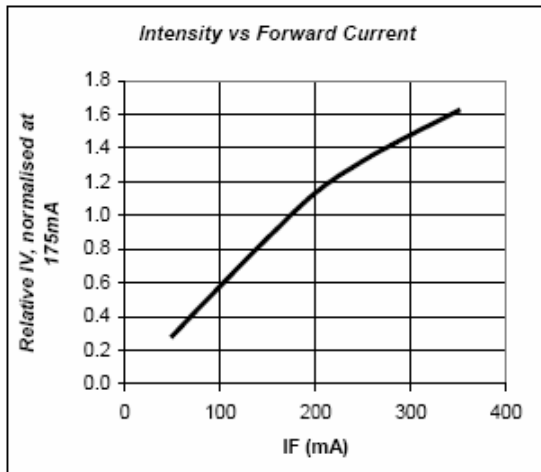
Note: Metal core circuit board (MCPCB) is highly recommended for high density applications.



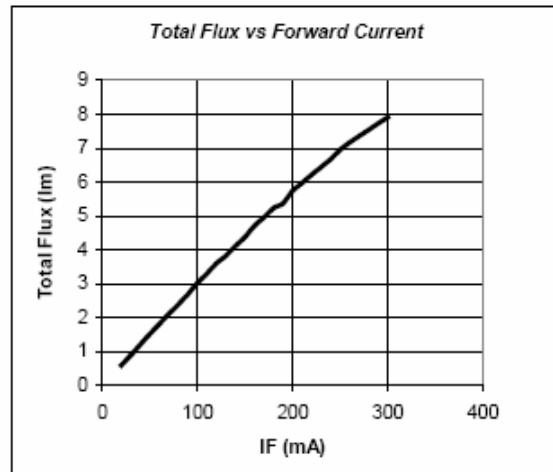
OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

Typical Electro-Optical Characteristics Curves

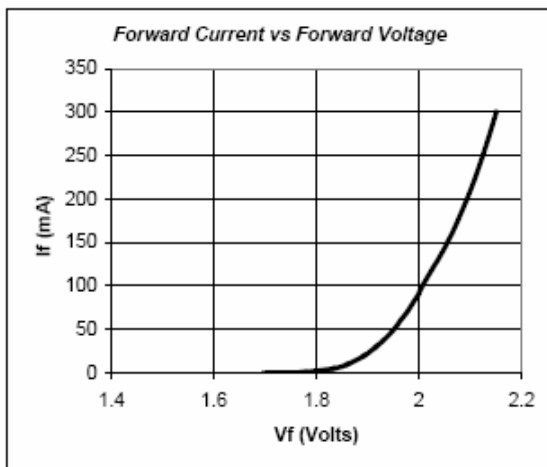
Relative Intensity vs. Forward Current



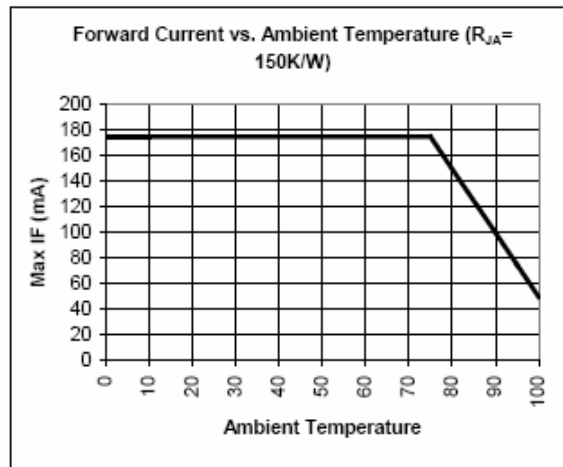
Flux vs. Forward Current



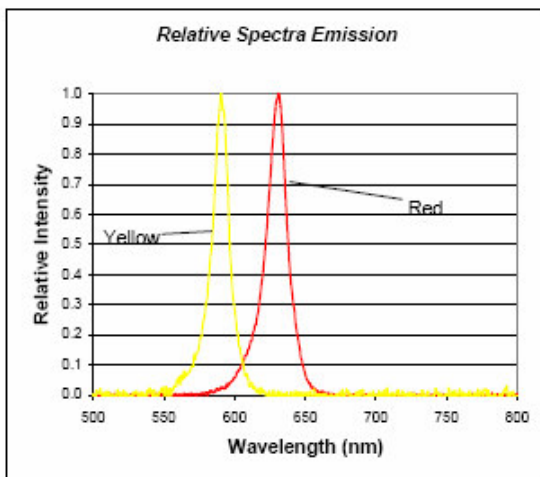
Forward Current vs. Forward Voltage



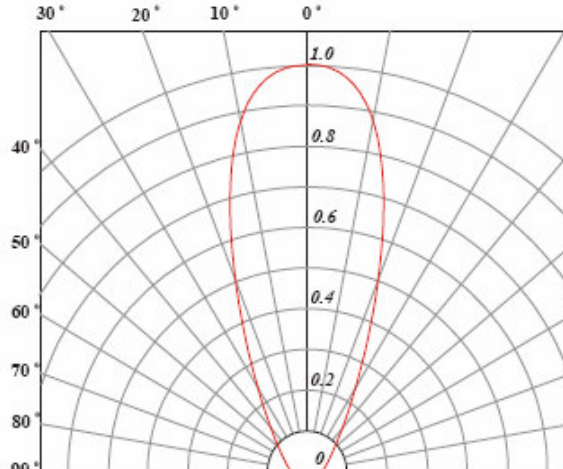
Max Forward Current vs. Ambient Temperature.



Relative Intensity vs. Wavelength

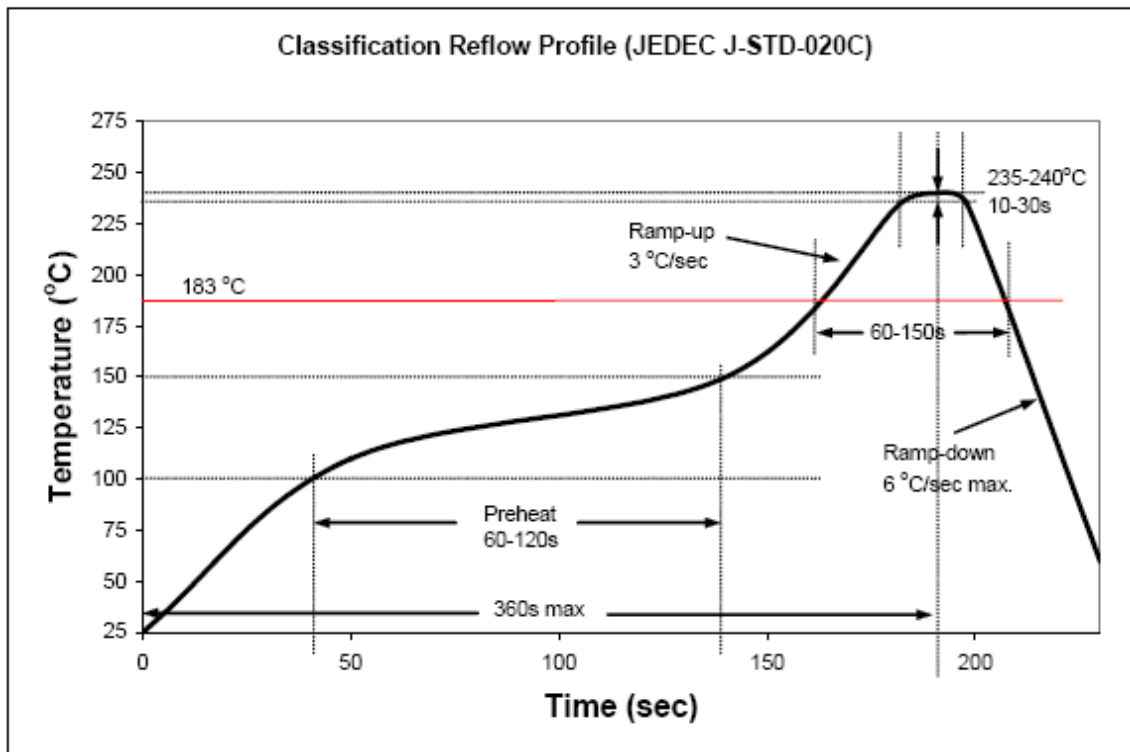


Radiation Pattern.

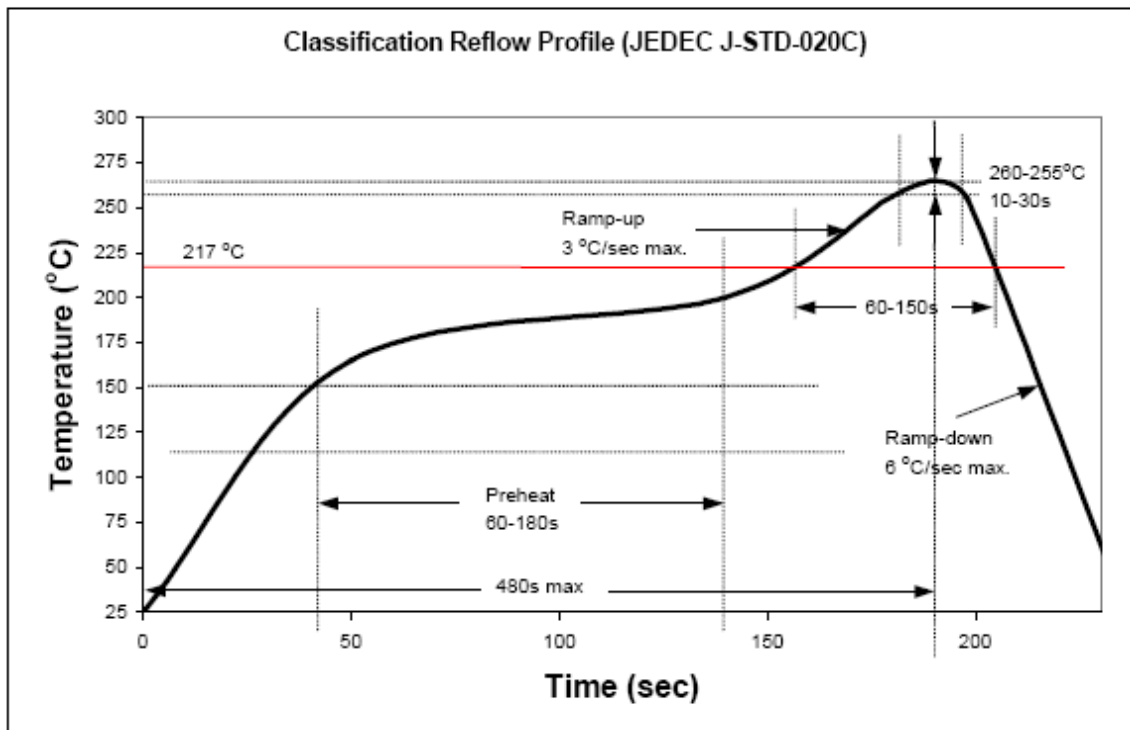


OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

Recommended Sn-Pb IR-Reflow Soldering Profile.



Recommended Pb Free IR-Reflow Soldering Profile.



OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

TT electronics
OPTEK Technology

329±1.0

Ø13. $+0.5$ -0.2

18.4 (max.measure at hub)

100±0.05

12. $+2$

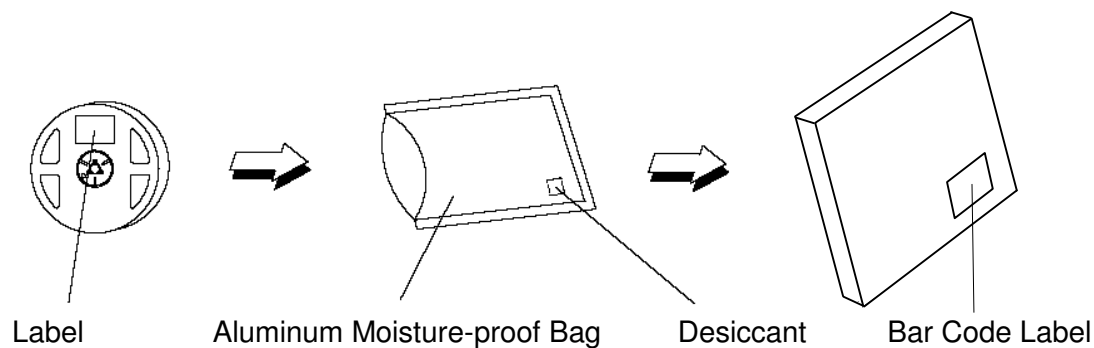
Label

Issue A 1/07
Page 6 of 7

.5-Watt SMD 6X6mm

OVS5X4CR44 Series

Moisture Resistant Packaging



OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.