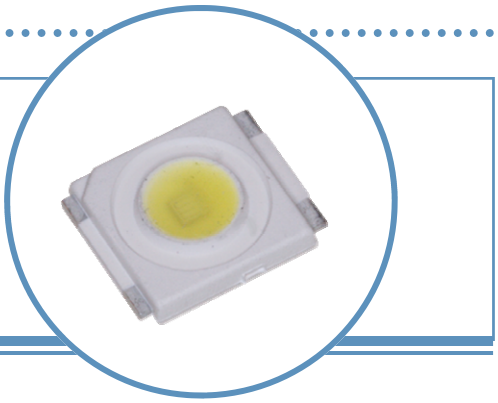
1-Watt SMD 6mm (120° Viewing Angle)

TT electronics
OPTEK Technology

OVSPxBCR4 Series

- Robust energy-efficient design with long operating life
- Low thermal resistance
- Exceptional spatial uniformity
- Optional optics to suit application
- Available in yellow, blue, green, red and white

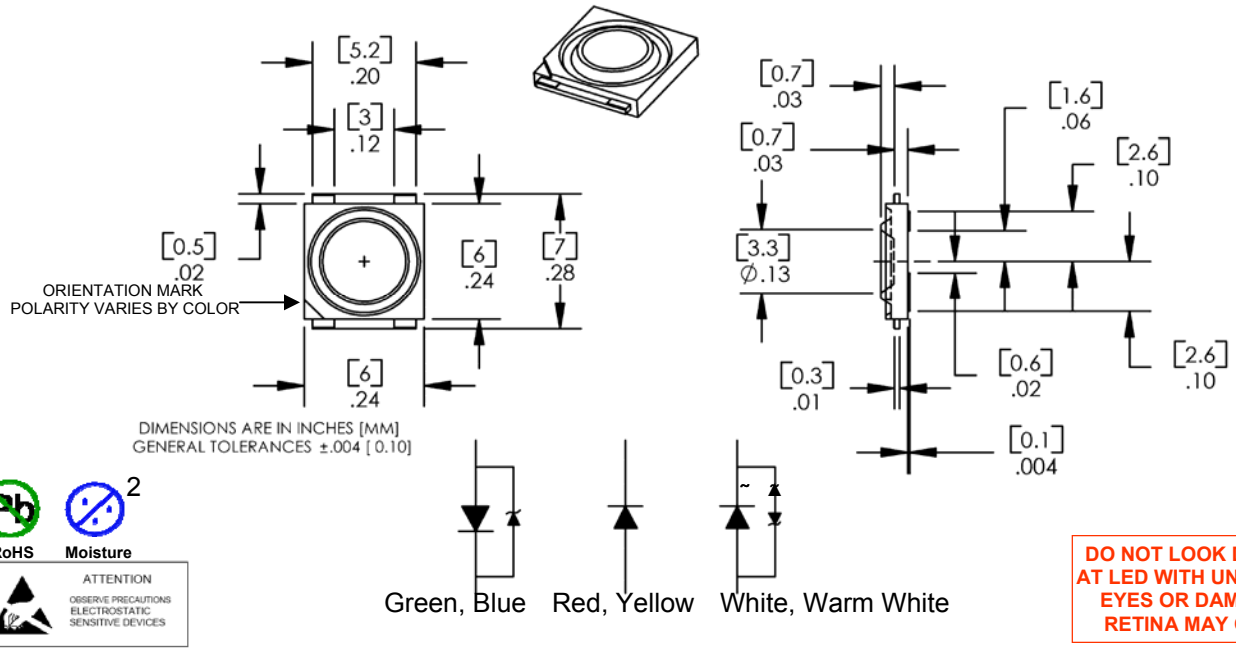


The **OVSPxBCR4 Series** is an energy-efficient packaged LED source that offers high luminance, and a long operating lifespan. These devices offer a 120° viewing angle and an ultra-low profile (1.5mm) making them highly suitable for conventional lighting and specialized applications. Optional optics 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)	Typical On-Axis Intensity (cd)	Lens Color
OVSPBBCR4	120°	Blue	9	3.4	Water Clear
OVSPGBCR4		Green	48	18.2	Water Clear
OVSPRBCR4		Red	26	9	Water Clear
OVSPYBCR4		Yellow	35	11.25	Water Clear
OVSPWBCR4		White	75	na	Water Clear
OVSPWWBCR4		Warm White	50	na	Water Clear



RoHS
Moisture 2

ATTENTION
OBSERVE PRECAUTIONS FOR ELECTROSTATIC SENSITIVE DEVICES

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

Absolute Maximum Ratings T_A = 25°C

	Red, Yellow	Green, Blue	White	Warm White
DC Forward Current	400mA	350mA	350mA	350mA
Peak Pulsed Forward Current[1]	500mA	1000mA	1000mA	1000mA
Reverse Voltage	12V	Not designed for reverse bias		
Junction Temperature[2]	125°C	120°C	125°C	120°C
Power Dissipation	1200mW			
Storage and Operating Temperature	-40° ~ +100 ° C			
ESD Threshold (HBM)	2000V			

Notes:
1. Pulse width tp ≤ 10µs, Duty cycle = 0.1
2. Thermal conductivity = 20K/W for red, yellow, green, blue; and 18K/W for white

Optical and Electrical Characteristics—Red, Yellow (I_F = 400 mA, T_A = 25° C)

SYMBOL	PARAMETER		MIN	TYP	MAX	UNITS
V_F	Forward Voltage		2.2	2.5	2.8	V
Φ	Luminous Flux	Red	21	26	33	lm
		Yellow	27	35	42	lm
λ_D	Dominant Wavelength	Red	620	625	630	nm
		Yellow	585	587	597	nm
I_R	Reverse Current		----	100	----	µA
2 Θ½	50% Power Angle		----	120	----	deg

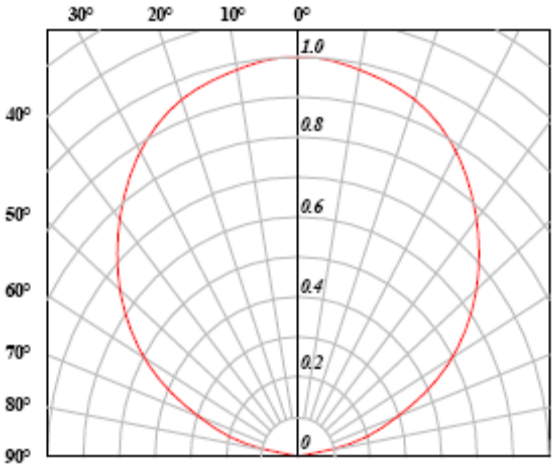
Optical and Electrical Characteristics—Blue, Green (I_F = 350 mA, T_A = 25° C)

SYMBOL	PARAMETER		MIN	TYP	MAX	UNITS
V_F	Forward Voltage		----	3.6	4.0	V
Φ	Luminous Flux	Blue	5.8	9	12	lm
		Green	38	48	60	lm
λ_D	Dominant Wavelength	Blue	464	470	476	nm
		Green	525	530	535	nm
2 Θ½	50% Power Angle		----	120	----	deg

Optical and Electrical Characteristics—White, Warm White (I_F = 350 mA, T_A = 25° C)

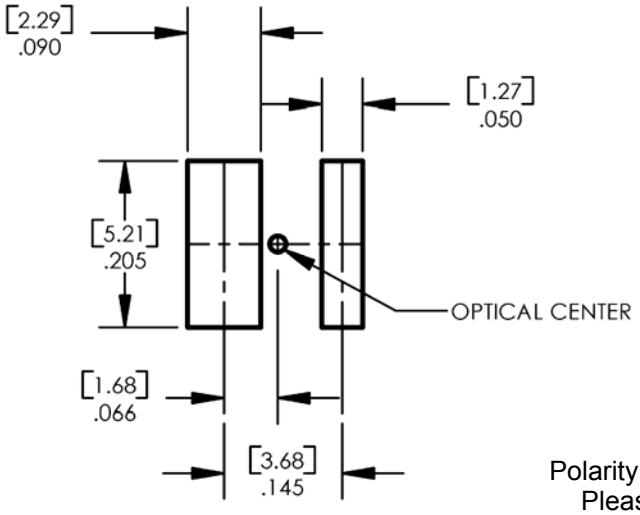
SYMBOL	PARAMETER		MIN	TYP	MAX	UNITS
V_F	Forward Voltage		3.0	3.5	4.0	V
Φ	Luminous Flux	White	52	75	87	lm
		Warm White	39	50	67	lm
I_R	Reverse Current		----	10	----	µA
2 Θ½	50% Power Angle		----	120	----	deg

Radiation Pattern—All Colors



Solder Pad Design

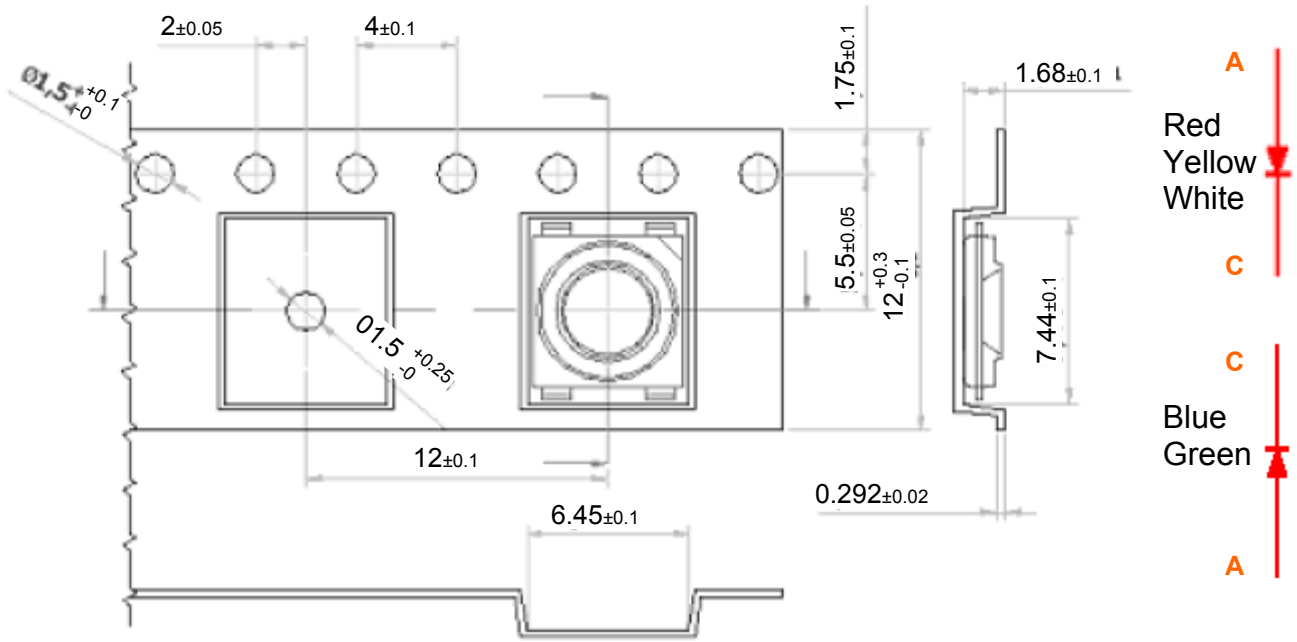
Note: Metal core circuit board (MCPCB) is highly recommended for high density applications. Please consult sales and marketing for additional information.



Polarity varies with color.
Please see Page 1.

Taping and Orientation

Loaded quantity 2000 pieces per reel



Reel Dimensions (13 inch)