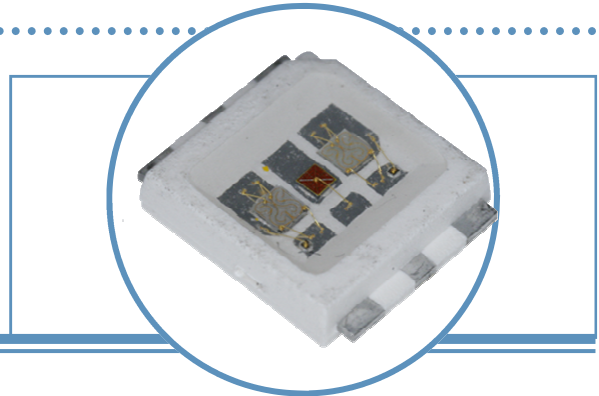


Full-color Power SMD 6mm (130° Viewing Angle)

OVSPRGBCR4

- Surface mount RGB designed for high current drive
- Low thermal resistance—20K/W
- Ultra low profile of 1.5mm
- High flux output

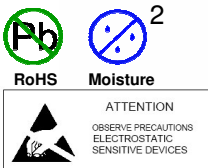
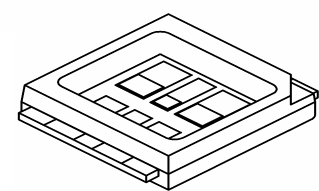
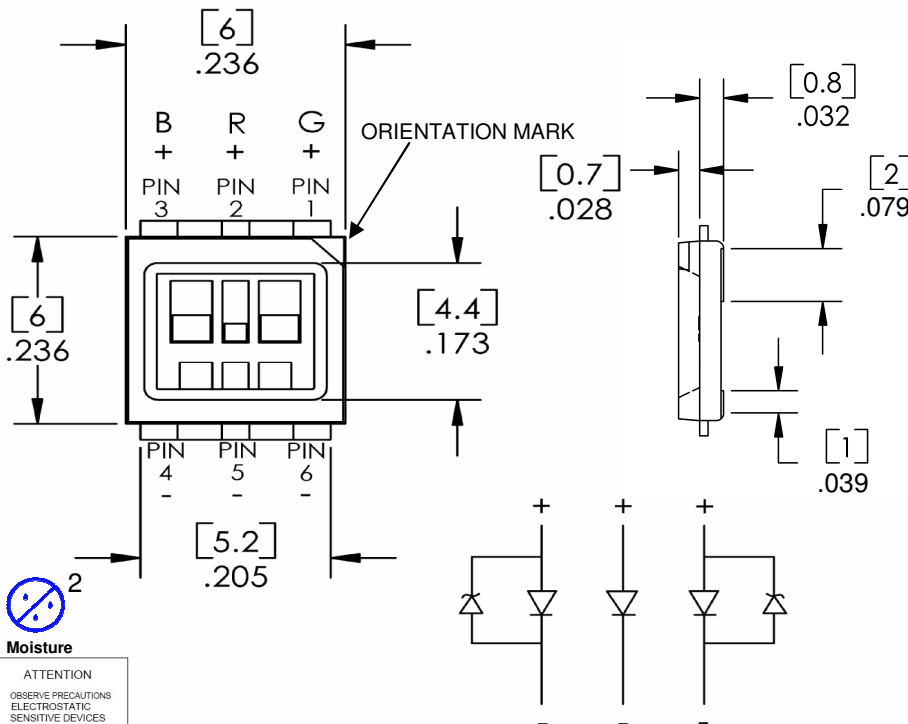


The **OVSPRGBCR4** is an energy-efficient packaged LED source that offers high luminance, and a long operating lifespan. This full-color power device offers a 130° viewing angle and an ultra-low profile (1.5mm) making it highly suitable for conventional lighting and specialized applications. Optional 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
- LED backlighting

Part Number	Viewing Angle	Emitted Color	Typical Luminous Flux (lm)	Typical On-Axis Intensity (cd)	Lens Color
OVSPRGBCR4	130°	Red	21	7	Water Clear
		Green	32	11	Water Clear
		Blue	7.5	2.8	Water Clear



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.

Full-color Power SMD 6mm OVSPRGBCR4



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

DC Forward Current (per chip)	250mA
Peak Pulsed Forward Current (per chip) ¹	500mA
Reverse Voltage	Not designed for reverse bias drive
Junction Temperature	125°C
Storage and Operating Temperature	-40° ~ +100 °C
ESD Threshold (HBM)	2000V

Notes:

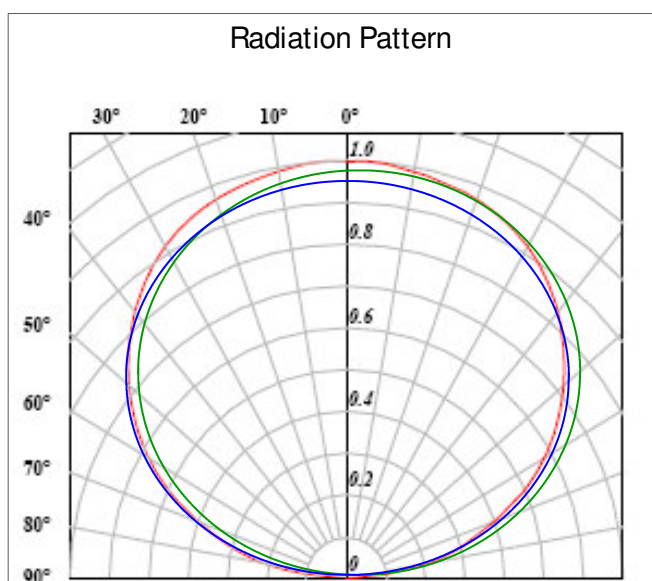
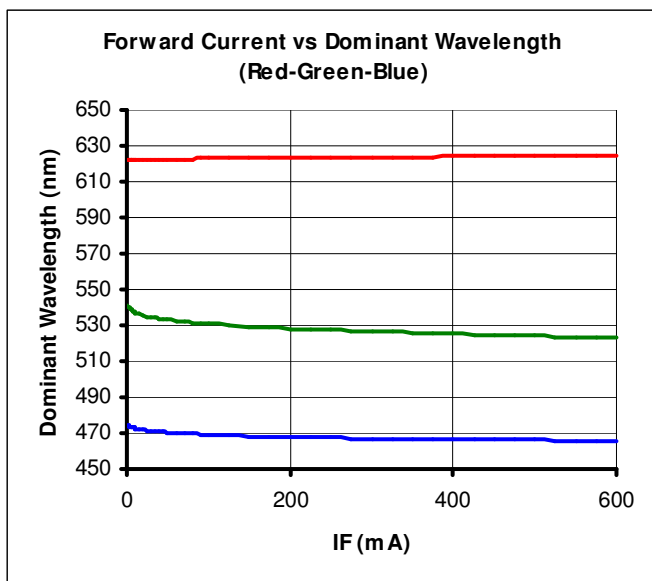
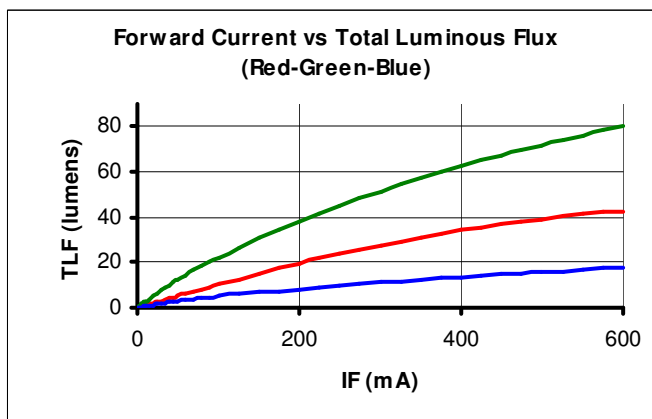
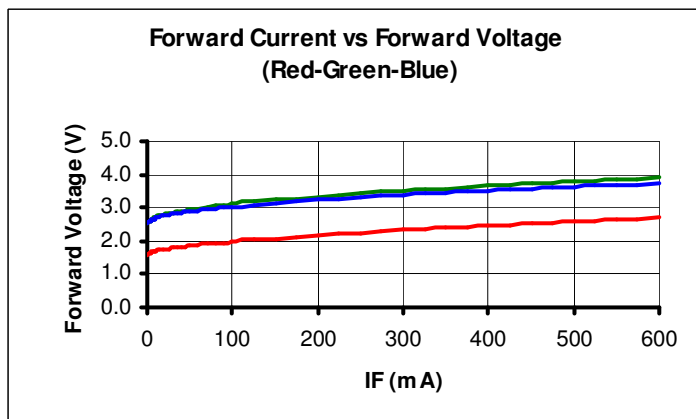
1. Pulse width $t_p \leq 10\mu\text{s}$, Duty cycle = 0.1
2. Thermal resistance = 20K/W

Optical and Electrical Characteristics ($I_F = 250\text{ mA}$, $T_A = 25^\circ\text{C}$)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	
V_F	Forward Voltage	Red	2.2	2.3	2.5	V
		Green	3.3	3.5	3.6	V
		Blue	3.3	3.5	3.6	V
Φ	Luminous Flux	Red	16	21	27	lm
		Green	26	32	40	lm
		Blue	6	7.5	9	lm
I_v	Luminous Intensity	Red	5600	7150	9000	mcd
		Green	9000	11250	14000	mcd
		Blue	2240	2850	3550	mcd
λ_D	Dominant Wavelength	Red	619	—	625	nm
		Green	525	530	535	nm
		Blue	460	465	470	nm
$2\theta_{1/2}$	50% Power Angle	----	130	----	deg	

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

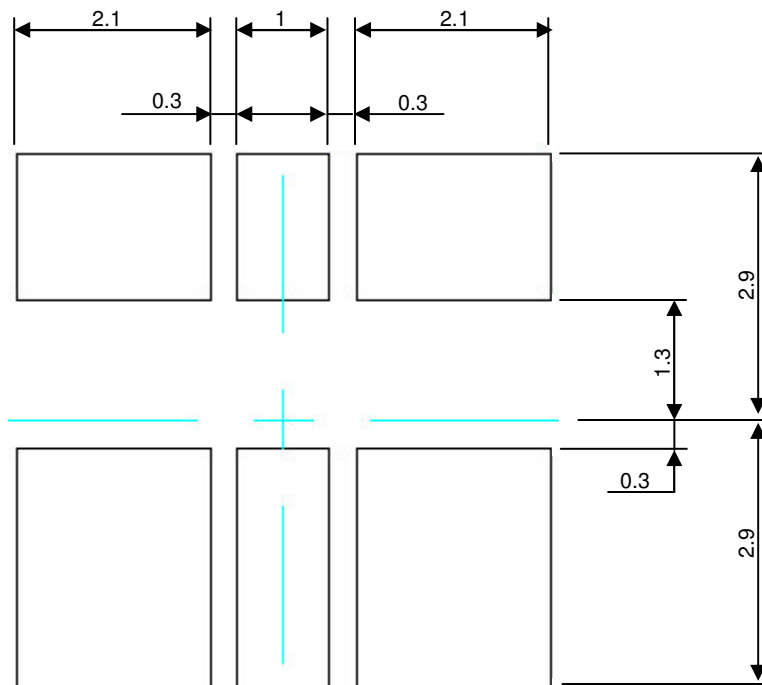
Typical Electro-Optical Characteristics Curves



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

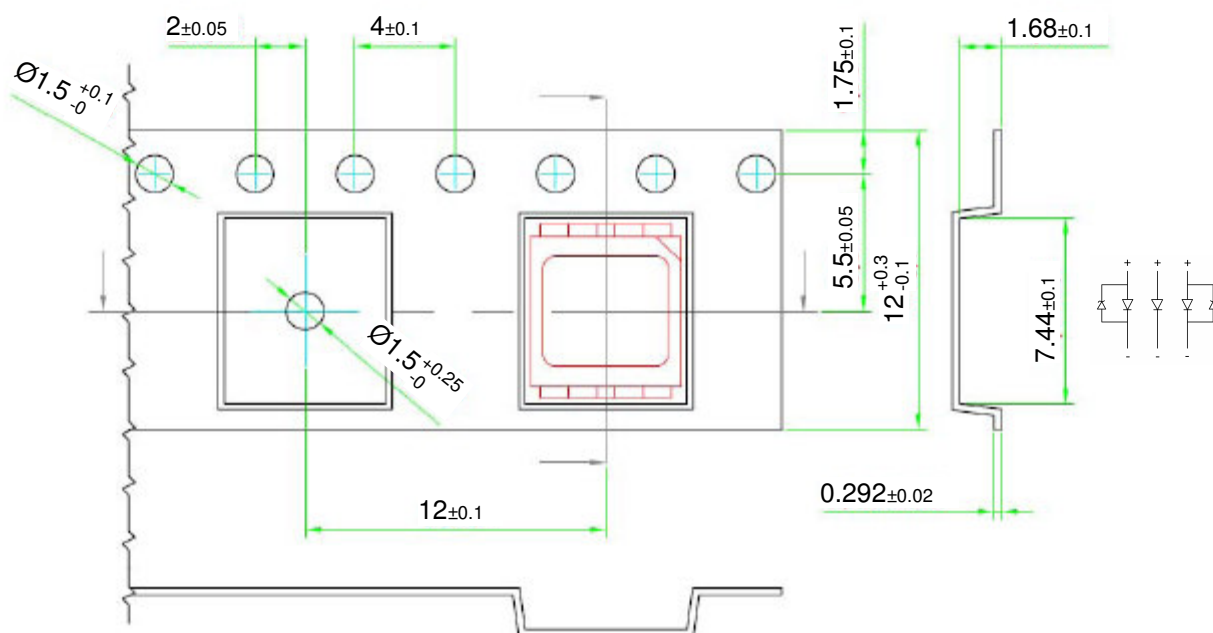
Solder Pad Design

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



Taping and Orientation

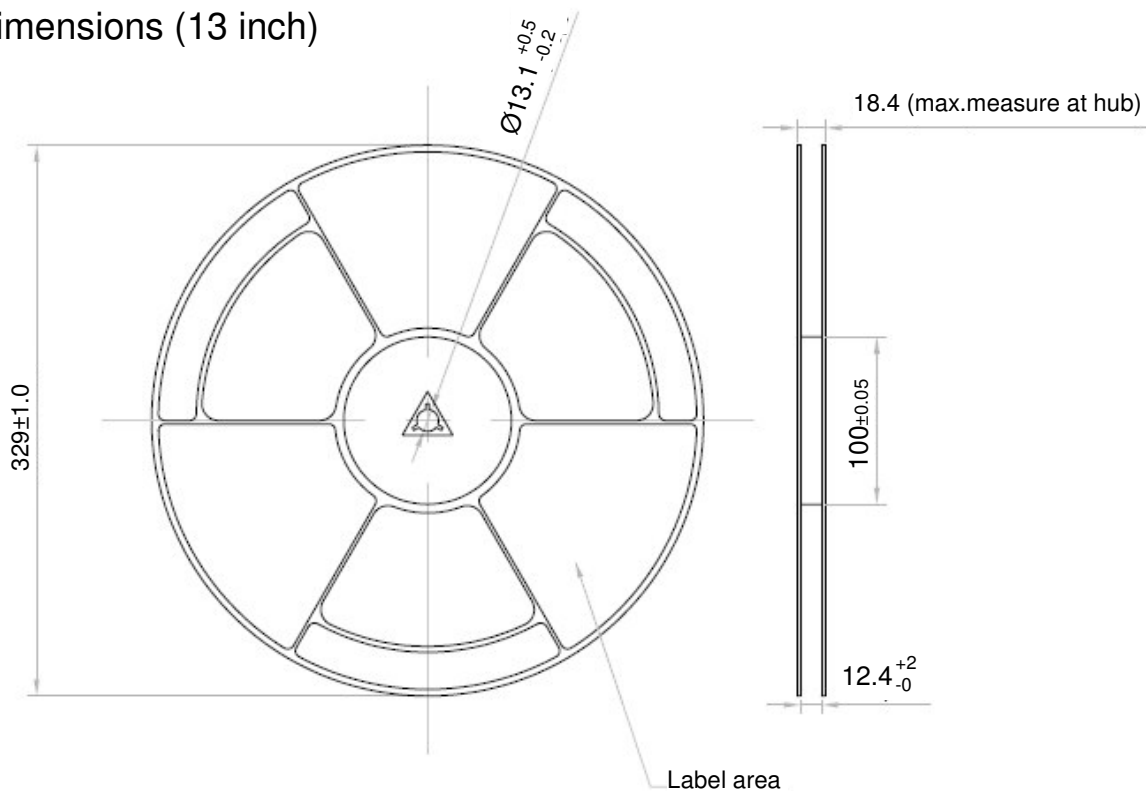
Loaded quantity 1000 pieces per reel



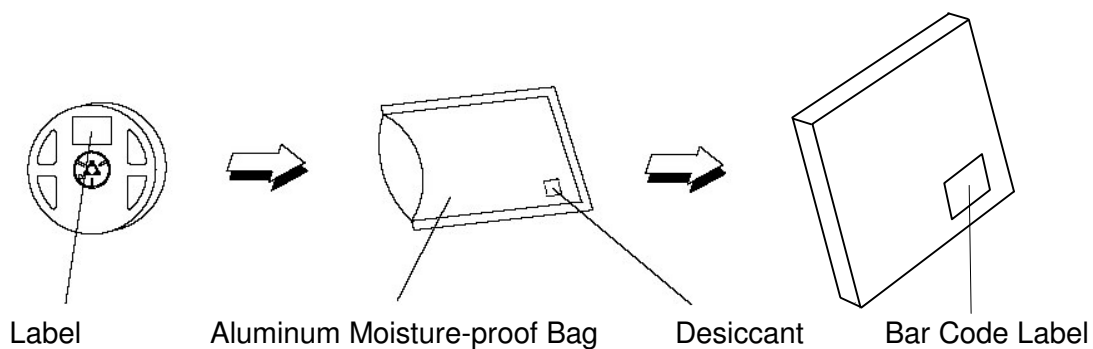
OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

Full-color Power SMD 6mm OVSPRGBCR4

Reel Dimensions (13 inch)

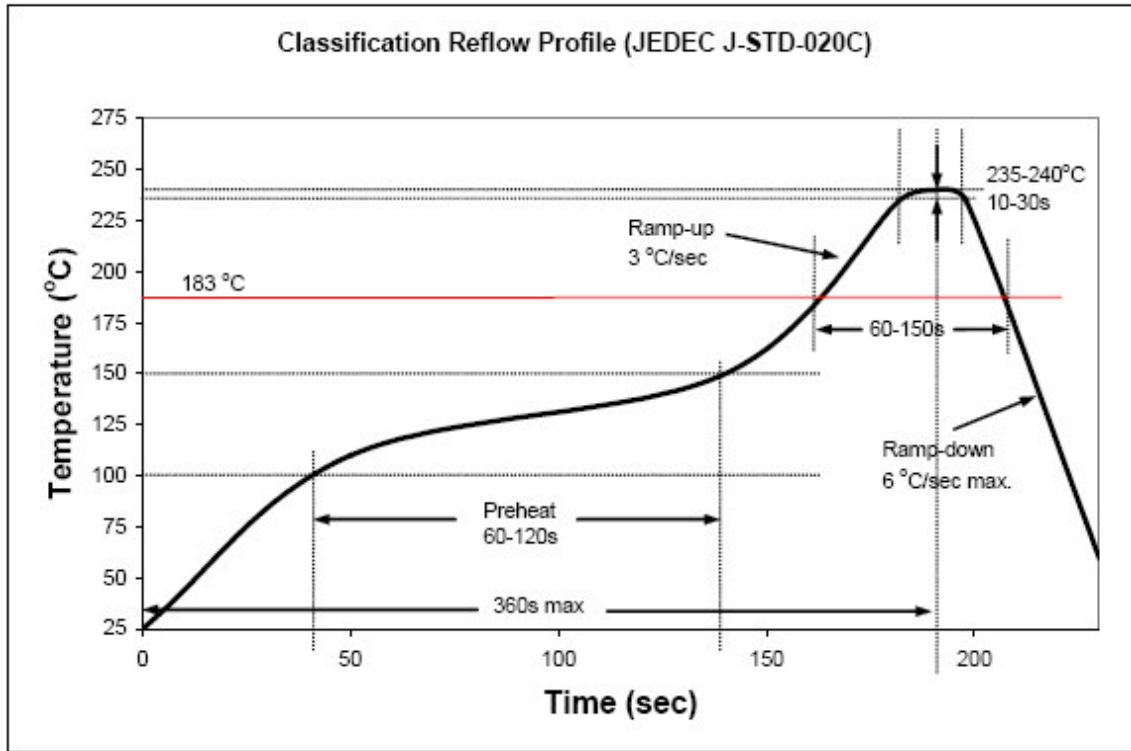


Moisture Resistant Packaging

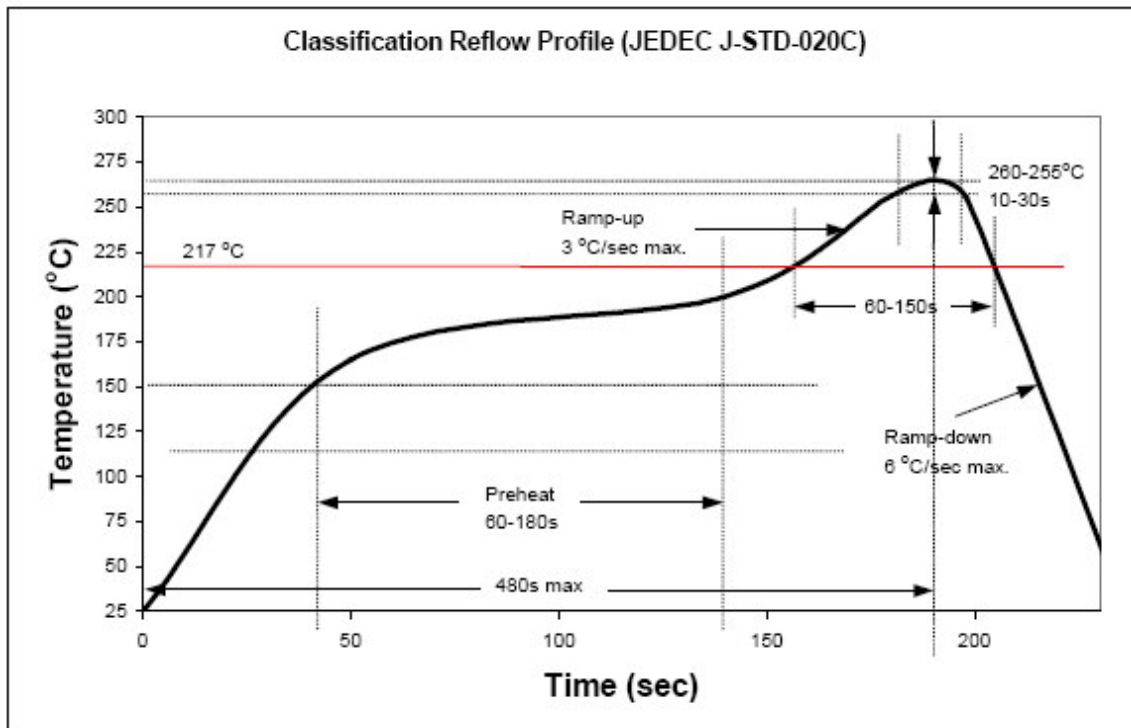


OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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.