

Full-color Power SMD 3mm (120° Viewing Angle)



OVSPRGBCR4A

- High brightness surface mount LED.
- Small package outline (LxWxH) of 3.0x3.0x0.7mm.
- LED chips can be controlled separately to display various colors including white.
- Compliance to automotive standard; AEC-Q101.



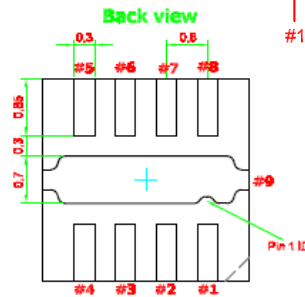
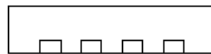
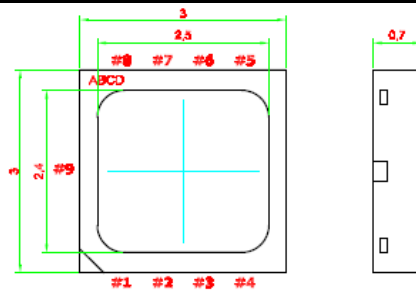
Description

The **OVSPRGBCR4A** is an energy-efficient packaged LED source that offers high luminance, and a long operating lifespan. This full-color power device offers a 120° viewing angle and an ultra-low profile (0.7mm) making it highly suitable for conventional lighting and specialized applications.

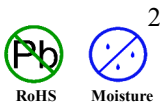
Applications

- Automotive exterior and interior lighting
- Architectural indoor and outdoor lighting
- General lighting

Part Number	Viewing Angle	Emitted Color	Intensity (mcd)	Lens Color
OVSPRGBCR4A	120°	Red	5600-11250	Clear
		True Green	7150-11250	Clear
		Blue	1800-3550	Clear



- (1) Pin #1 - Cathode (Red)
- (2) Pin #2 - Cathode (T Green)
- (3) Pin #3 - Cathode (Blue)
- (4) Pin #4 - Not use
- (5) Pin #5 - Not use
- (6) Pin #6 - Anode (Blue)
- (7) Pin #7 - Anode (T Green)
- (8) Pin #8 - Not use
- (9) Pin #9 - Anode (Red)



Note : General Tolerances ± 0.10 mm

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

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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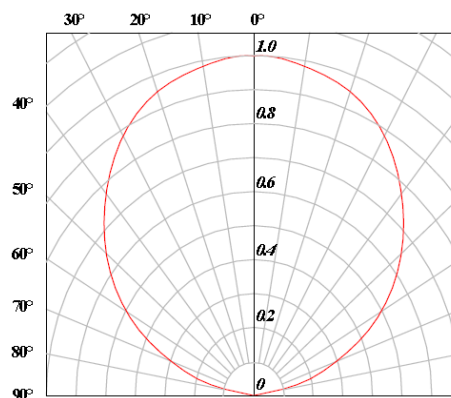
Absolute Maximum Ratings $T_A = 25^\circ\text{C}$

Storage Temperature Range	-40 ~ +125° C
Operating Temperature Range	-40 ~ +125° C
Reverse Voltage (Not designed for reverse operation) ($I_r = 10 \mu\text{A}$)	Red = 12 V True Green / Blue = 5 V
DC forward current (per chip)	200 mA
Peak Pulse Current (per chip) ($T_P \leq 10 \mu\text{sec}$, $D \leq 10\%$)	400 mA
Electrostatic Threshold [HBM]	2000 V
Moisture Sensitivity Level	2
LED Junction Temperature	150° C

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

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	
V_F	Forward Voltage	Red	1.9	2.3	2.5	V
		True Green	2.9	3.3	3.6	V
		Blue	3.0	3.3	3.6	V
I_v	Luminous Intensity	Red	5600	-	11,250	mcd
		True Green	7150	-	11,250	mcd
		Blue	1800	-	3550	mcd
λ_D	Dominant Wavelength	Red	619	625	629	nm
		True Green	520	525	535	nm
		Blue	458	460	466	nm
$2 \Theta_{\frac{1}{2}}$	Beam Angle	----	120	----	deg	

Radiation Pattern

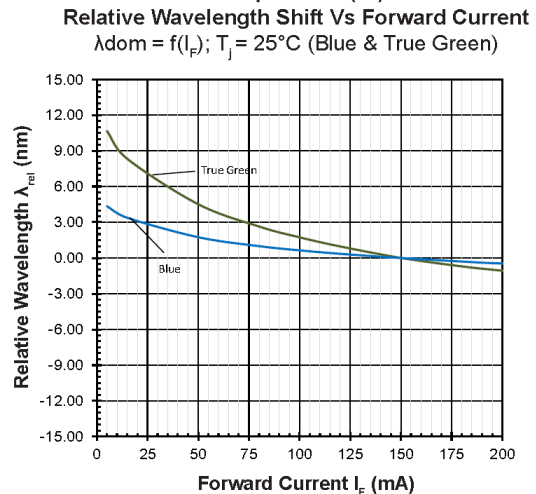
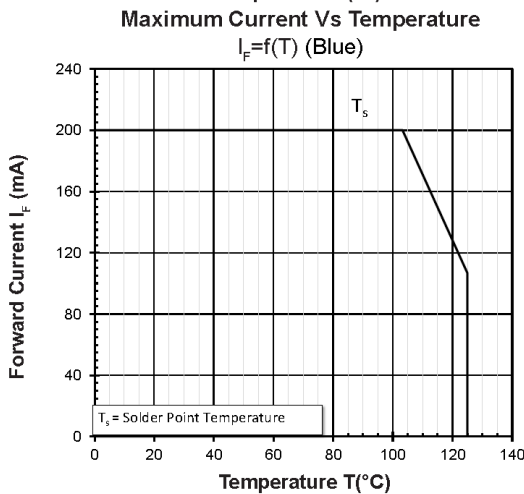
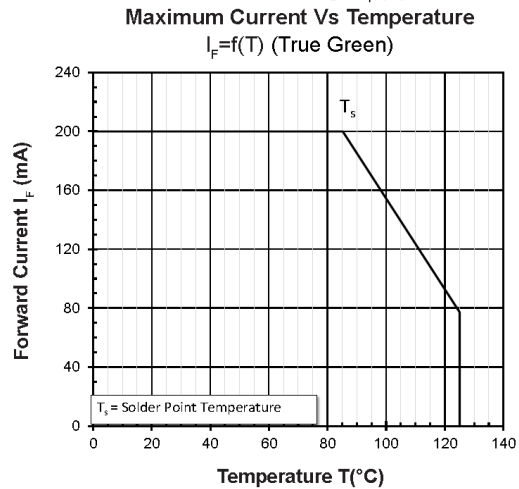
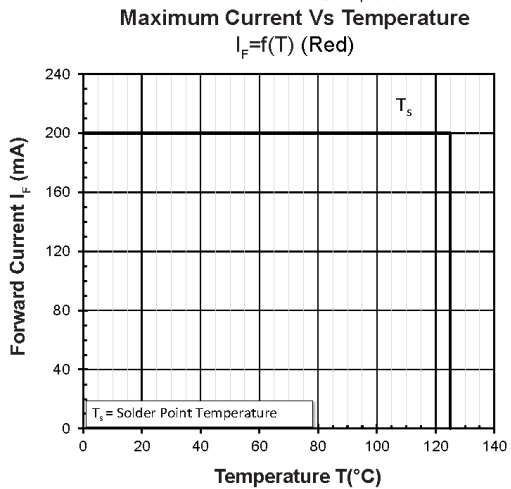
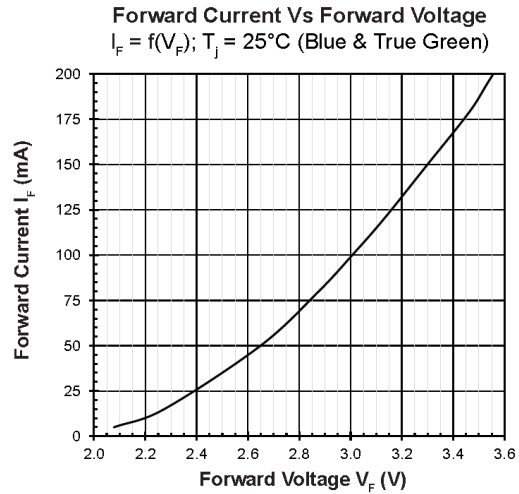
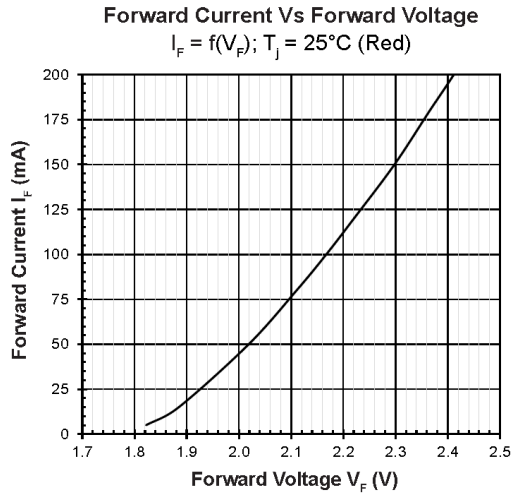


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Typical Electro-Optical Characteristics Curves



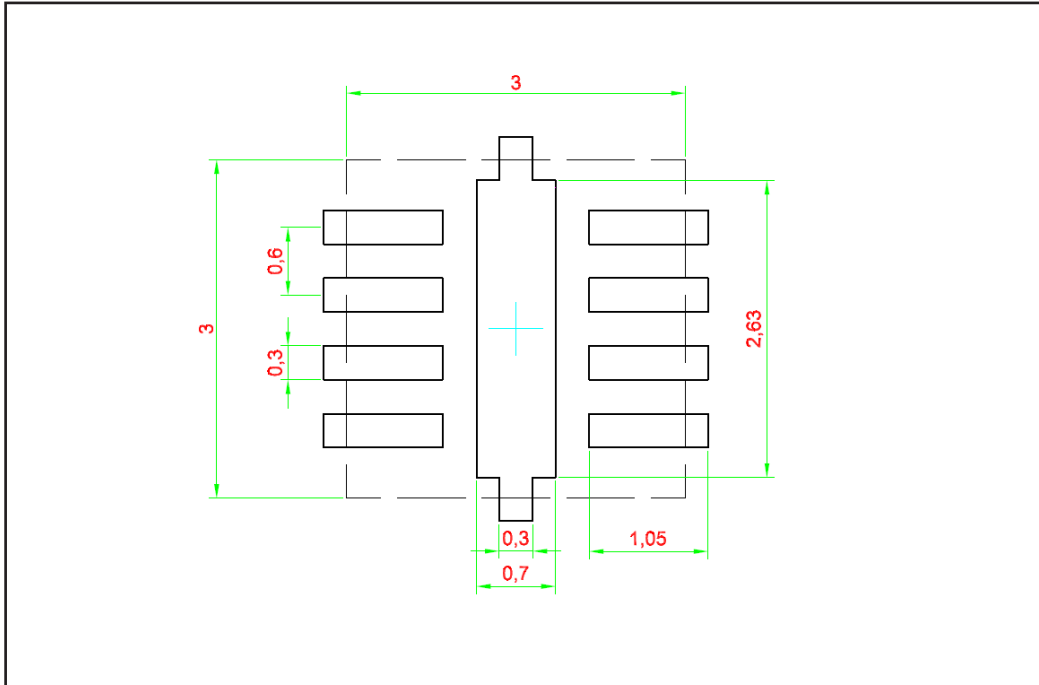
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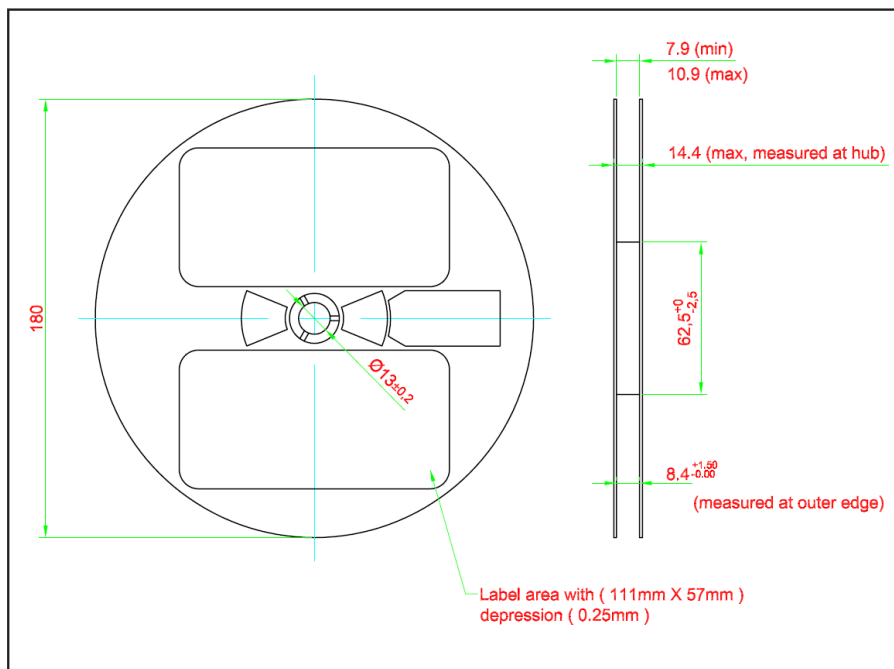


OVSPRGBCR4A

Recommended Solder Pad



Packaging Specification



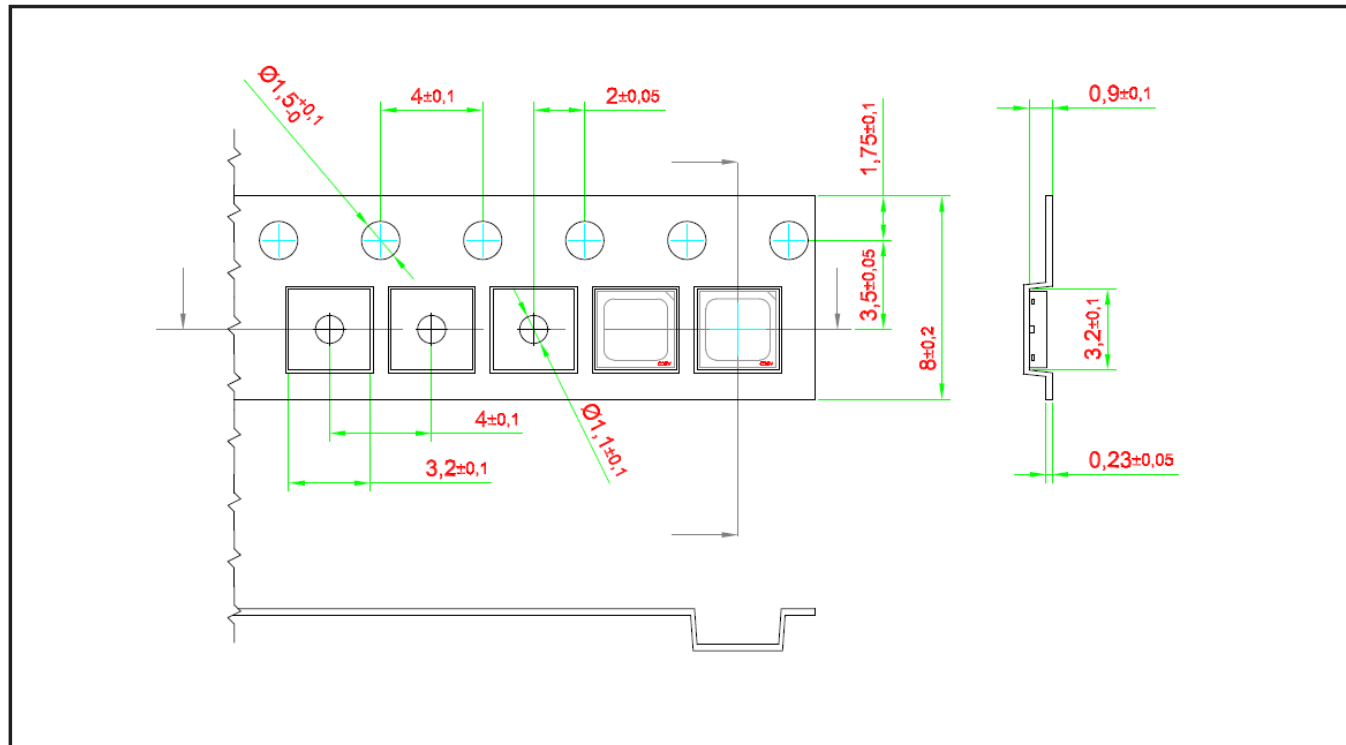
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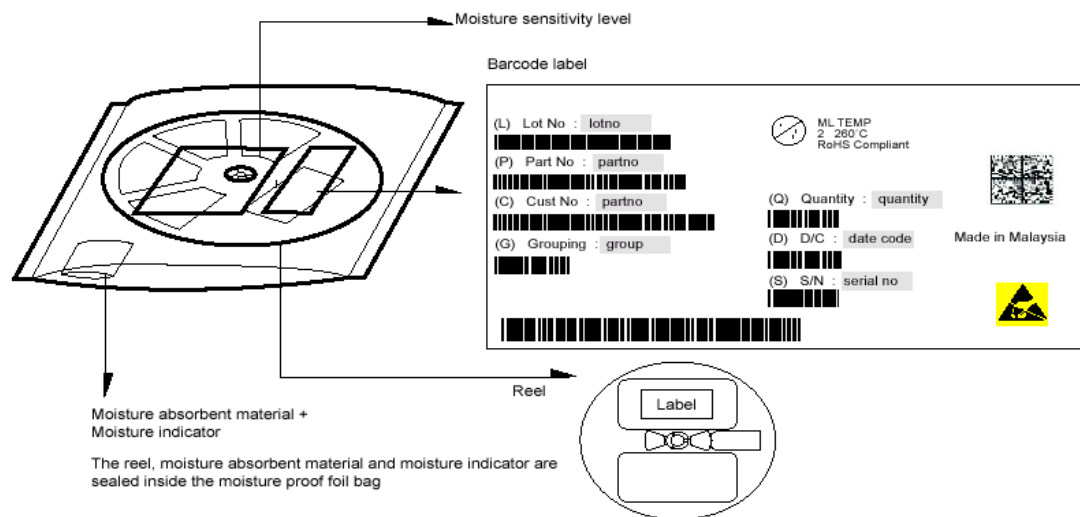
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Taping and Orientation

- Reels come in quantity of 2000 units
- Reel diameter is 180mm



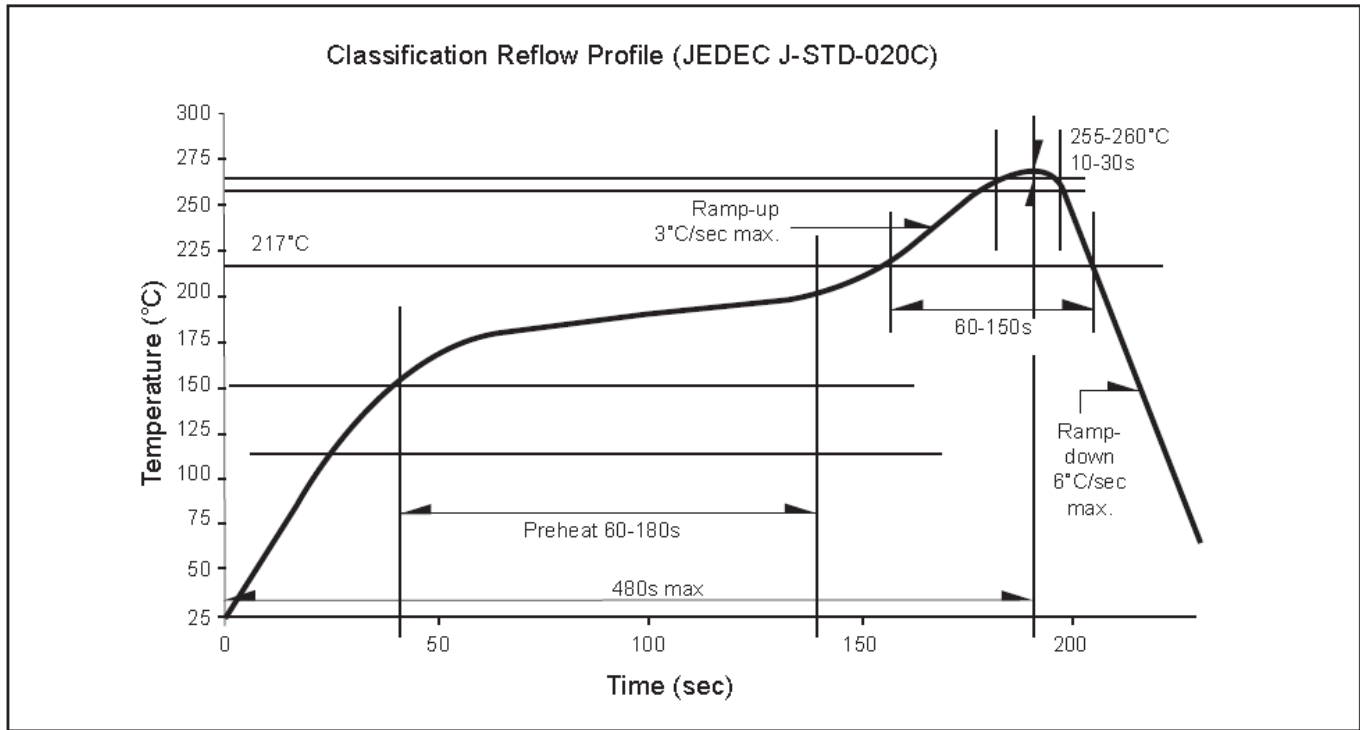
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Recommended Pb-free Soldering Profile



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