Full Color PLCC6 LED

OVSTRGBB1CR8



Features:

- Full-color red/green/blue
- PLCC package with 6 pins
- Wide viewing angle
- High performance
- Tunable color mix
- 120° viewing angle

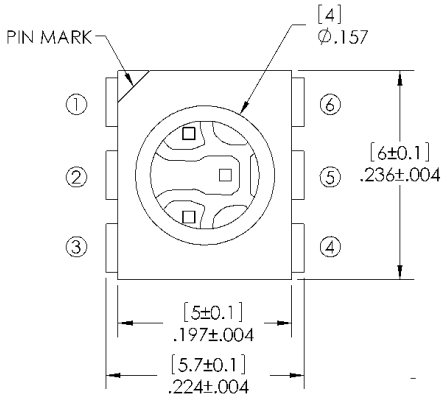
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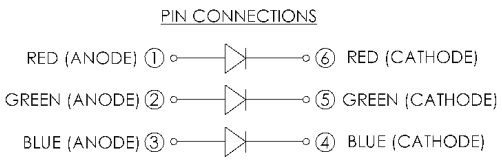
The **OVSTRGBB1CR8** package design provides wide viewing angle, low power consumption, and high luminous intensity. Color on demand is made possible by isolated chip circuits, allowing each LED to be driven individually or in tunable color combinations.

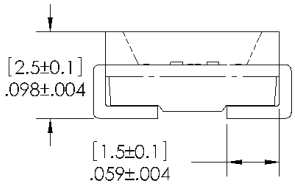
Applications:

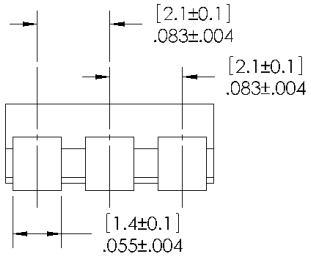
- Amusement equipment
- Information boards
- Automotive interior lighting
- Portable appliances
- Indoor and outdoor displays
- Backlighting
- RGB full-color displays

Part Number	Chip				Lens Color
	Type	Material	Emitted Color	Intensity Typ. mcd	
OVSTRGBB1CR8	R	AlInGaP	Red	700	Diffused
	G	InGaN	Green	1800	
	B	InGaN	Blue	400	









DIMENSIONS ARE IN INCHES [MM].

5a

RoHS Moisture

ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICES

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

General Note

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Electrical Specifications

Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)

PARAMETER	RATING			UNIT
	R	G	B	
Storage Temperature	-40 ~ +100			° C
Operating Temperature	-40 ~ +100			° C
Reverse Voltage	5			V
Continuous Forward Current (1 chip on)	50	50	50	mA
Peak Forward Current (10% Duty Cycle, PW ≤ 100 µsec, 1 chip on)	200	100	100	mA
Power Dissipation	130	200	200	mW
Junction Temperature	110	110	110	° C
Junction/ambient (1 chip on)	450	400	450	° C/W
Junction/ambient (3 chips on)	650	580	680	° C/W
Junction/solder point (1 chip on)	300	280	300	° C/W
Junction/solder point (3 chips on)	450	430	480	° C/W
Electrostatic Discharge Classification (JEDEC-JESD22-A114F)				Class 1C
Moisture Sensitivity Level (IPC/JEDEC J-STD-020C)				5a / 24 Hrs

Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER		VALUES			UNIT	CONDITIONS
			R	G	B		
I_V	Luminous Intensity	Min	560	1120	280	mcd	I_F = 50 mA
		Avg	700	1600	400		
V_F	Forward Voltage	Avg	2.0	3.2	3.2	V	I_F = 50 mA
		Max	2.6	4.0	4.0		
I_R	Reverse Current (max)		10	10	10	µA	V_R = 5 V
λ_D	Dominant Wavelength		619-624	520-540	460-480	nm	I_F = 50 mA
λ_P	Wavelength at Peak Emission		630	527	470	nm	I_F = 50 mA
2 Θ½	Beam Angle		120	120	120	deg	I_F = 50 mA
Δλ	Spectral Radiation Bandwidth		24	38	28	nm	I_F = 50 mA

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

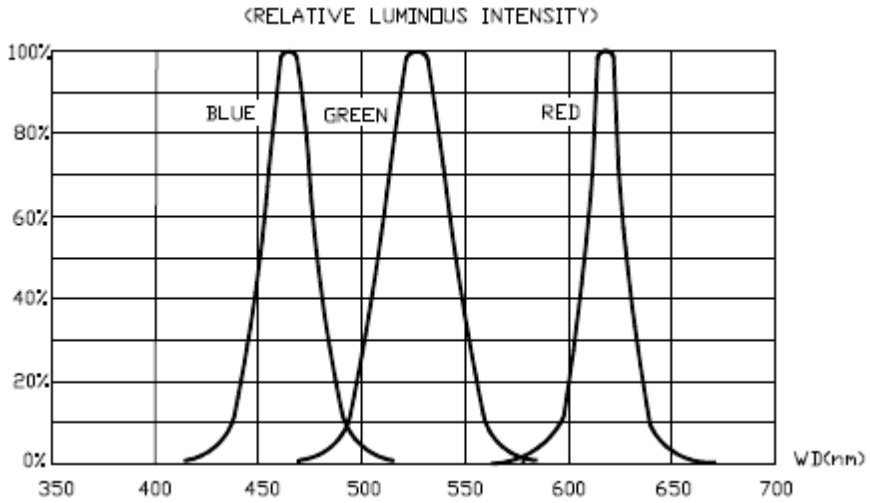
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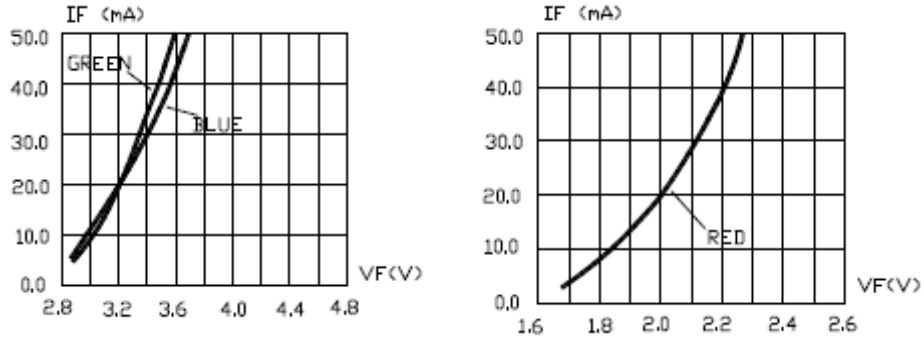
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Performance

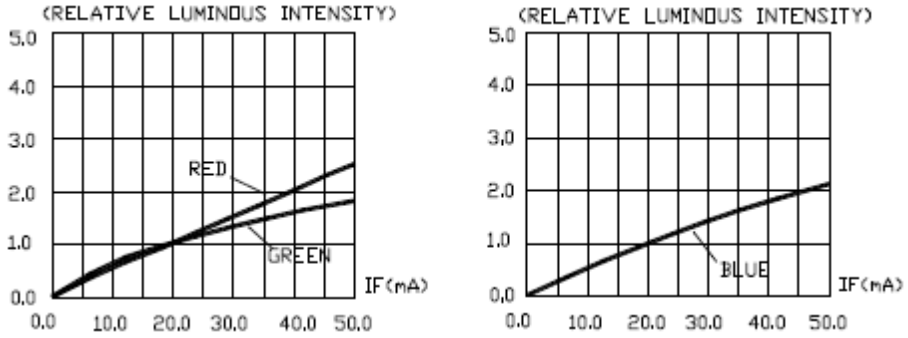
Typical Electro-Optical Characteristics Curves



Relative Intensity vs Dominant Wavelength



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current

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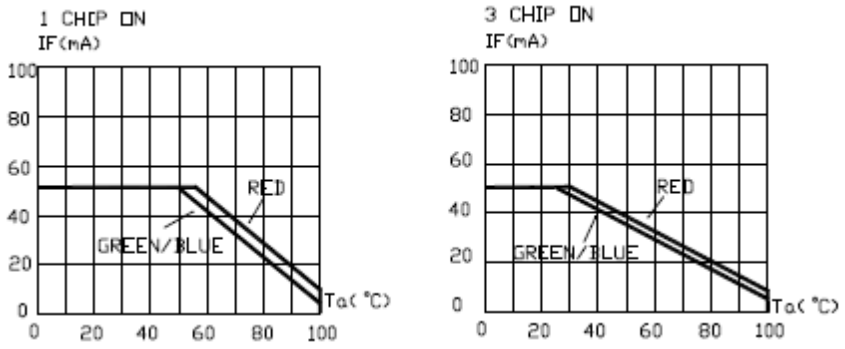
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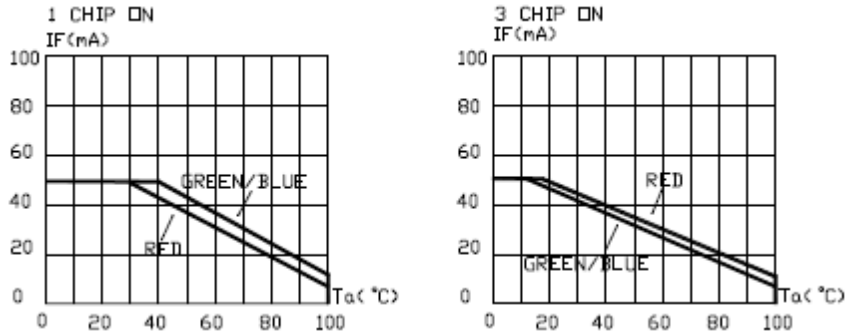
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Performance

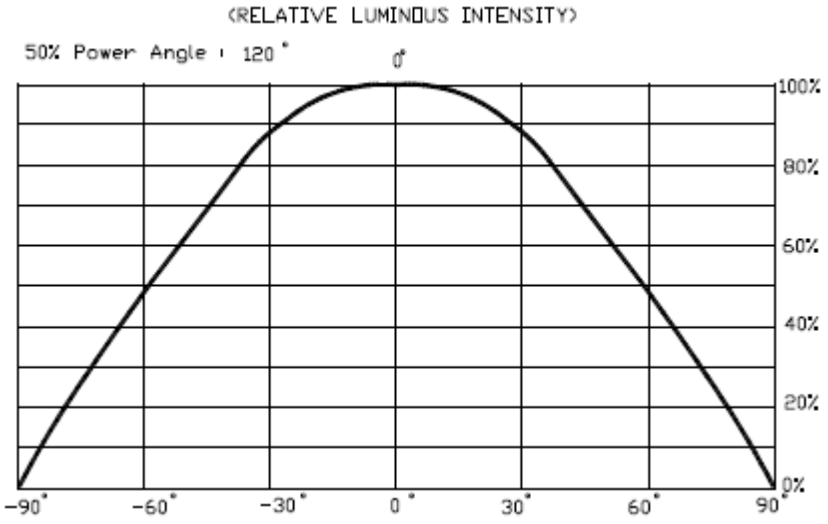
Typical Electro-Optical Characteristics Curves



Maximum Forward DC Current vs Solder Point Temperature



Maximum Forward DC Current vs Ambient Temperature

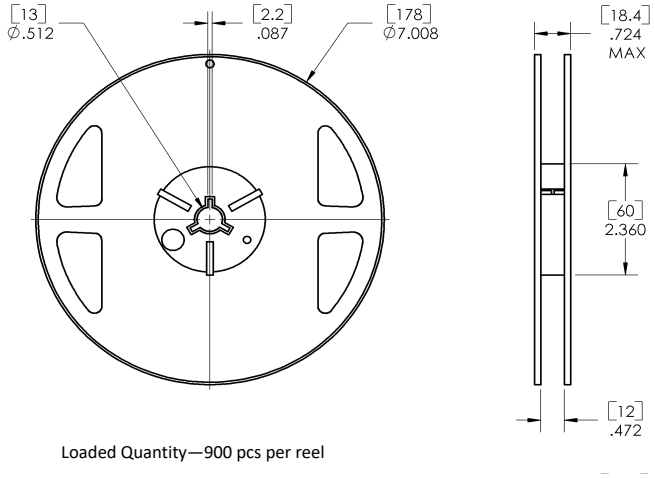


Far Field Pattern

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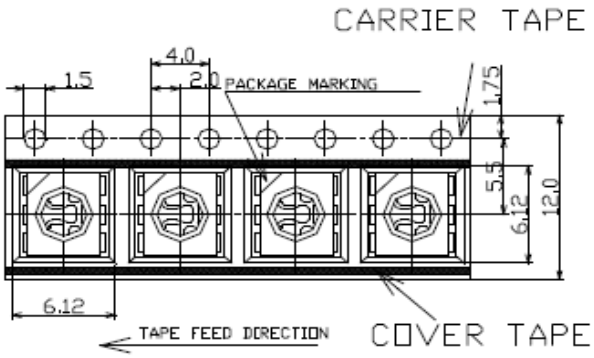
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Reel Dimensions: 7-inch reel

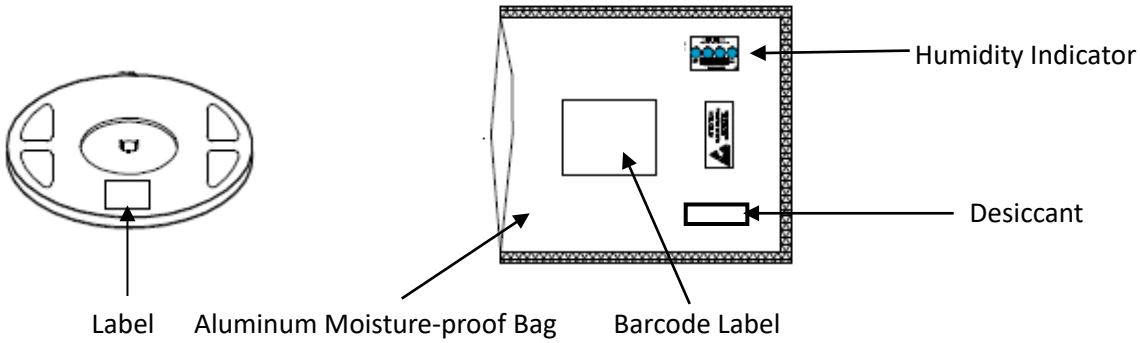


Loaded Quantity—900 pcs per reel

Carrier Tape Dimensions: Loaded quantity 900 pieces per reel



Moisture Resistant Packaging



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