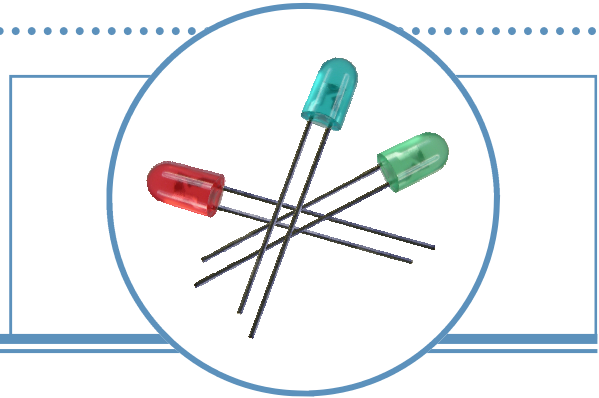


Round Red Through-hole LED Lamp (3mm)

OVLBR4C7

- High Brightness with Well-defined Spatial Radiation Patterns
- UV-resistant Epoxy Lens
- Red (623nm)

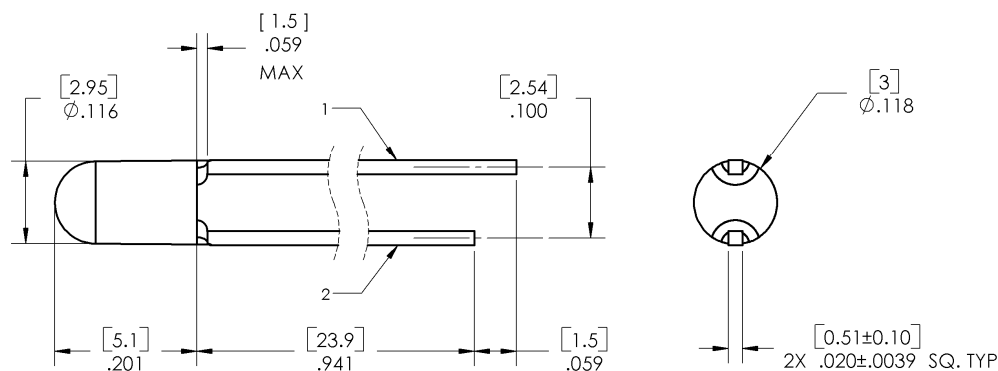


The OVLBR4C7 is a high-intensity AlInGaP LED mounted in a clear plastic T-1 package. Its UV-resistant epoxy lens makes this device an optimal solution for outdoor applications. This LED provides a well-defined and even emission pattern.

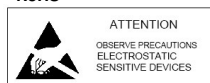
Applications

- Pedestrian Signals
- Signage and Architectural Lighting
- Backlighting
- Automotive
- Outdoor/Indoor Displays

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color
OVLBR4C7	AlInGaP	Red	1800	Water Clear



1 ANODE 2 CATHODE DIMENSIONS ARE IN INCHES AND [MILLIMETERS].



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

Round Red Through-hole LED (3mm) OVLBR4C7



Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ unless otherwise noted

Storage Temperature Range	-40 ~ +100°C
Operating Temperature Range	-40 ~ +85°C
Reverse Voltage	5 V
Continuous Forward Current	30 mA
Peak Forward Current (10% Duty Cycle, 1KHz)	100 mA
Power Dissipation	78 mW
Current Linearity vs. Ambient Temperature	-0.5 mA/°C
LED Junction Temperature	125°C
Lead Soldering Temperature (3mm from the base of the epoxy bulb) ¹	260°C

Note:

- Solder time less than 5 seconds at temperature extreme.

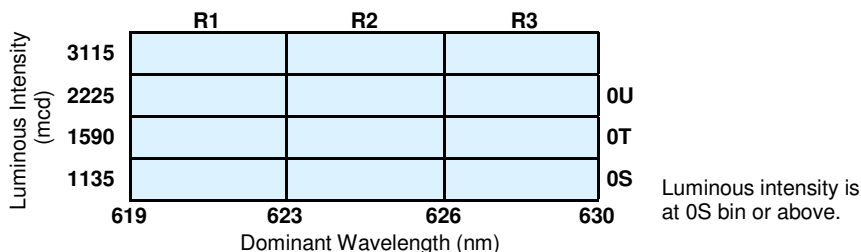
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I_V	Luminous Intensity	1135	1800	----	mcd	$I_F = 20\text{mA}$
V_F	Forward Voltage	----	2.2	2.6	V	$I_F = 20\text{mA}$
I_R	Reverse Current	----	----	10	μA	$V_R = 5\text{V}$
λ_P	Peak Wavelength	----	633	----	nm	$I_F = 20\text{mA}$
λ_D	Dominant Wavelength	619	623	630	nm	$I_F = 20\text{mA}$
$2\theta_{1/2H-H}$	50% Power Angle	----	45	----	deg	$I_F = 20\text{mA}$

Standard Bins ($I_F = 20\text{mA}$)

Lamps are sorted to luminous intensity (I_V) and dominant wavelength (λ_D) bins shown. Orders for OVLBR4C7 may be filled with any or all bins contained as below.



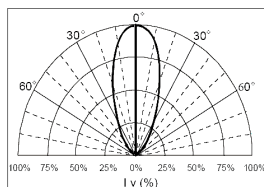
Forward Voltage

Rank	G	H	J	6
Voltage	1.8–2.0	2.0–2.2	2.2–2.4	2.4–2.6

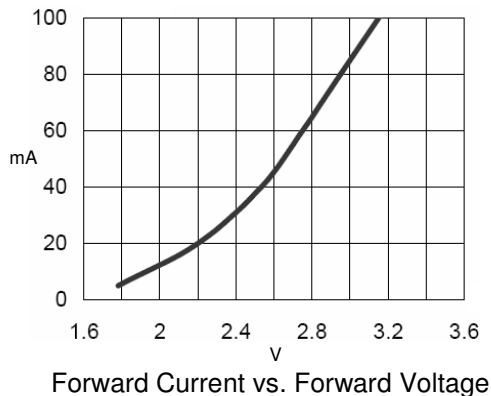
Important Notes:

- All ranks will be included per delivery, rank ratio will be based on the chip distribution.
- To designate luminous intensity ranks, please contact OPTEK.
- Pb content <1000PPM.

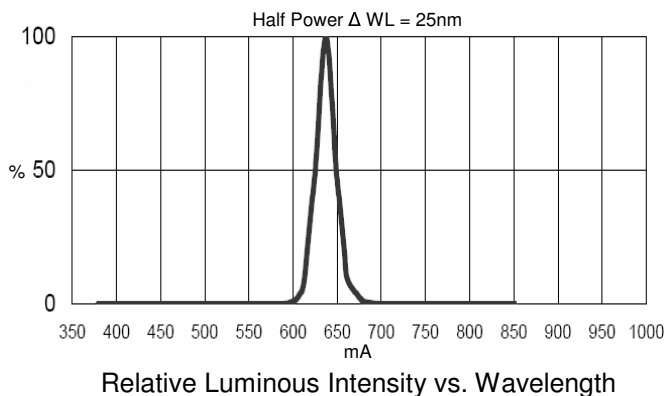
Beam Pattern



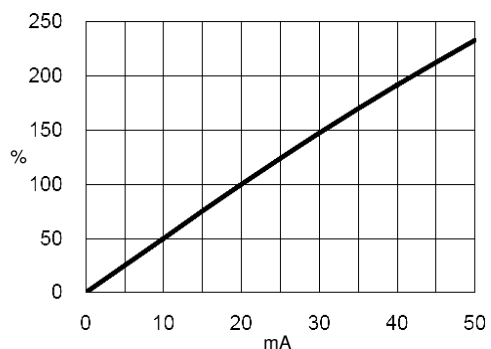
Typical Electro-Optical Characteristics Curves



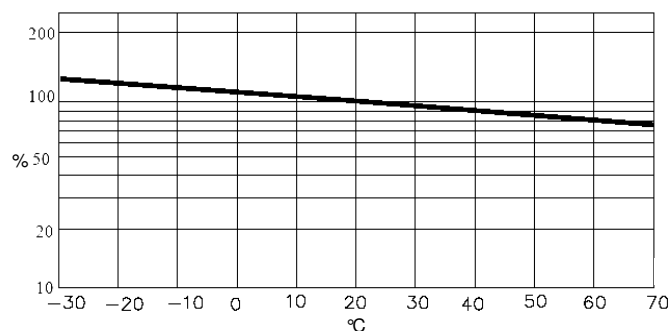
Forward Current vs. Forward Voltage



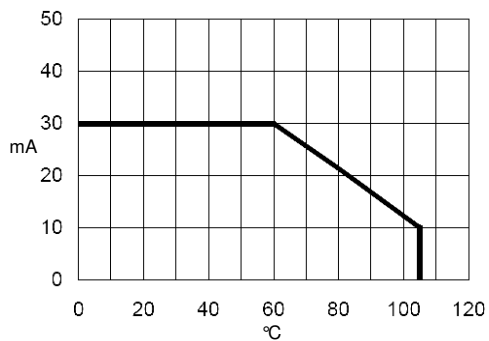
Relative Luminous Intensity vs. Wavelength



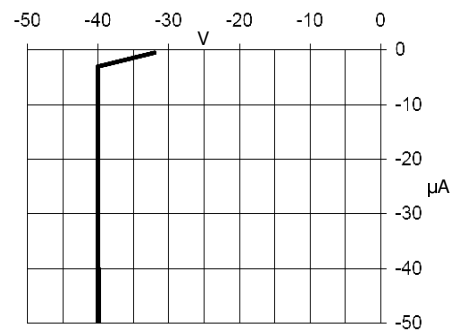
Relative Luminous Intensity vs. Forward Current



Relative Luminous Intensity vs. Ambient Temperature



Forward Current vs. Ambient Temperature

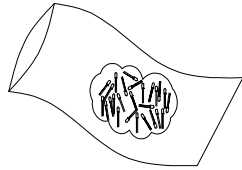


Reverse Current vs. Reverse Voltage

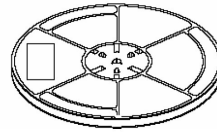
Round Red Through-hole LED (3mm) OVLBR4C7



Packing Information: Available in Bulk or Reel

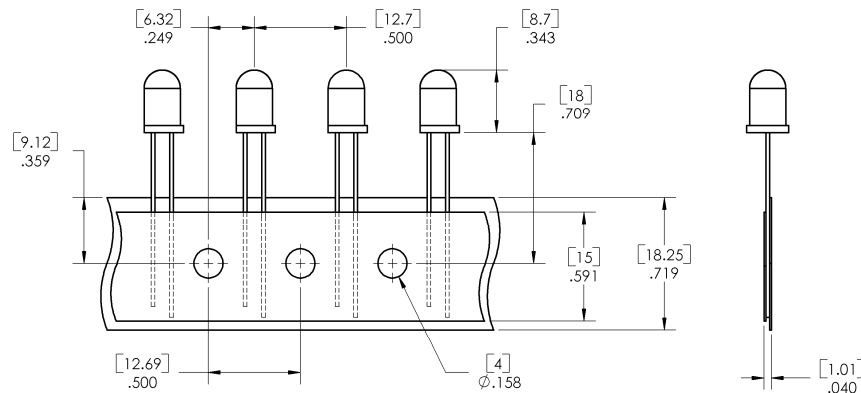


Bulk: 500 pcs/bag



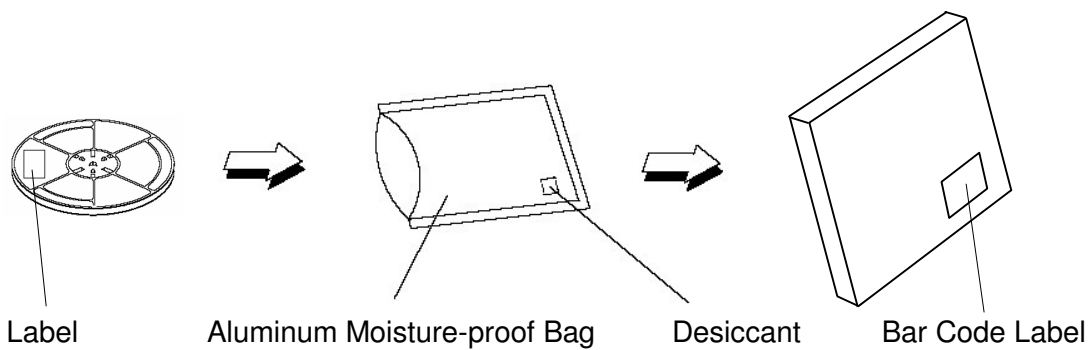
13-Inch Reel: 2500 pcs/reel

Carrier Tape Dimensions: Loaded Quantity 2500 PCS per Reel



DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

Moisture Resistant Packaging



Issue	Change Description	Approval	Date
1.0	Initial Release	J. Haynie	7/20/05