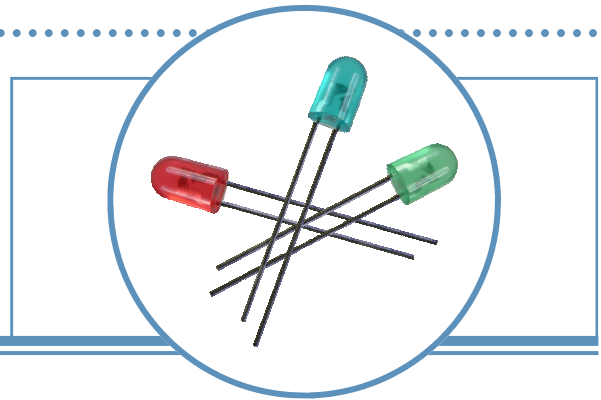


Round Red Through-hole LED Lamp (5 mm)

OVLFR3C7

- High brightness with well-defined spatial radiation patterns
- UV-resistant epoxy lens
- Red (624 nm)

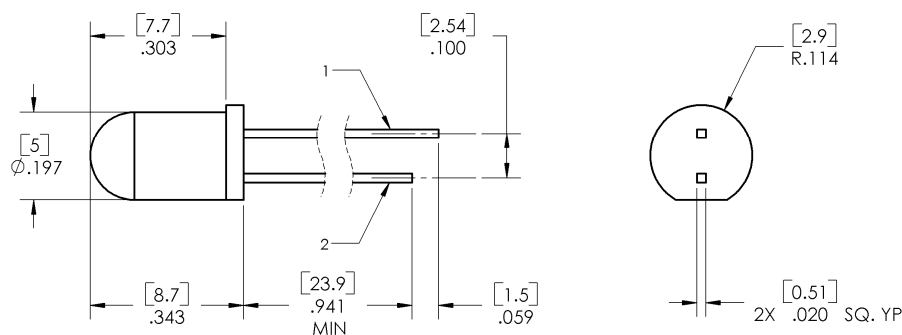


The **OVLFR3C7** is a high-intensity AlInGaP LED mounted in a clear plastic T-1¼ package. Its UV-resistant epoxy lens makes this device an optimal solution for outdoor applications. This LED provides a well-defined and even emission pattern.

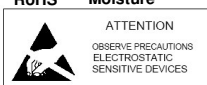
Applications

- Traffic and pedestrian signals
- Signage and architectural lighting
- Backlighting
- Automotive

| Part Number | Material | Emitted Color | Intensity Typ. (mcd) | Lens Color |
|-------------|----------|---------------|----------------------|-------------|
| OVLFR3C7 | AlInGaP | Red | 5000 | Water Clear |



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



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.

Round Red Through-hole LED (5 mm)

OVLFR3C7



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 ² | 30 mA |
| Peak Forward Current (10% Duty Cycle, 1KHz) | 100 mA |
| Power Dissipation | 100 mW |
| Lead Soldering Temperature (3mm from the base of the epoxy bulb) ¹ | 260 °C |
| Current Linearity vs. Ambient Temperature | -0.5 mA/°C |
| LED Junction Temperature | 125 °C |

Notes:

- Solder time less than 5 seconds at temperature extreme.
- Design of heat dissipation should be considered.

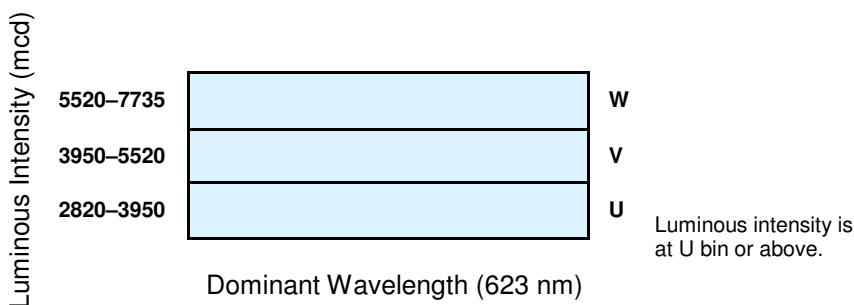
Electrical Characteristics

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

| SYMBOL | PARAMETER | MIN | TYP | MAX | UNITS | CONDITIONS |
|-----------------|---------------------|------|------|------|---------------|-----------------------|
| I_V | Luminous Intensity | 2820 | 5000 | ---- | 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 | $V_R = V$ |
| λ_P | Peak Wavelength | ---- | 633 | ---- | nm | $I_F = 20 \text{ mA}$ |
| λ_D | Dominant Wavelength | 619 | 623 | 630 | nm | $I_F = 20 \text{ mA}$ |
| $\Delta\lambda$ | Spectra Half Width | ---- | 25 | ---- | | |
| $2\theta_{1/2}$ | 50% Power Angle | ---- | 30 | ---- | 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 OVLFR3C7 may be filled with any or all bins contained as below.

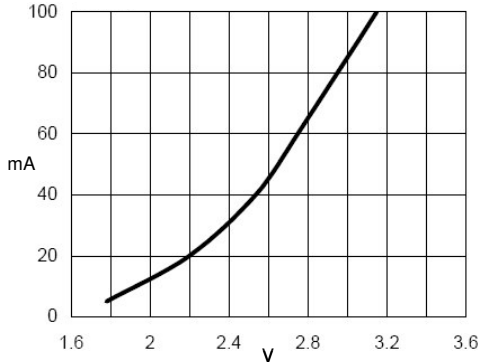


Notes:

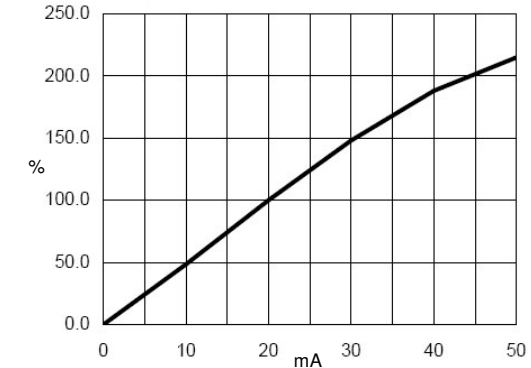
- All ranks will be included per delivery, rank ratio will be based on the chip distribution.
- To designate luminous intensity ranks, please contact OPTEK.
- Pb content <1000 PPM.

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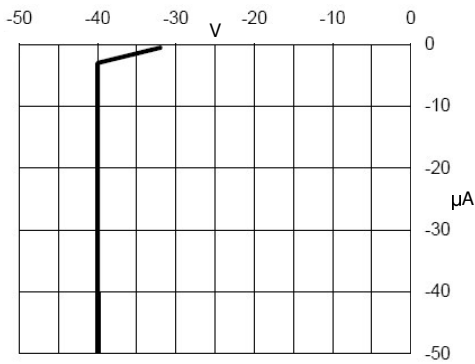
Typical Electro-Optical Characteristics Curves



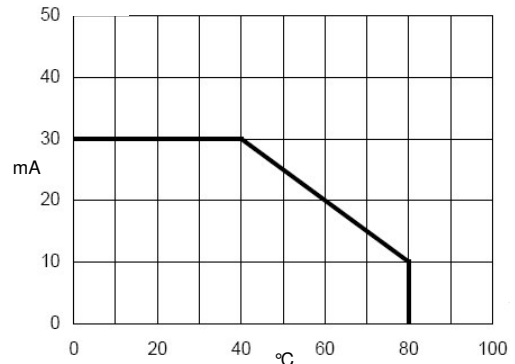
Forward Current vs Forward Voltage



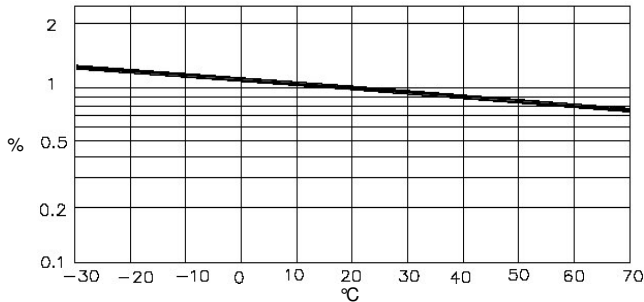
Relative Luminous Intensity vs Forward Current



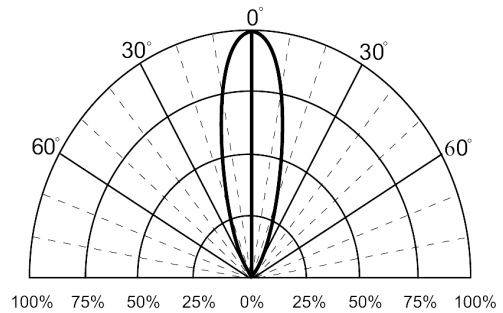
Reverse Current vs Reverse Voltage



Forward Current vs Ambient Temperature



Relative Luminous Intensity vs Ambient Temperature

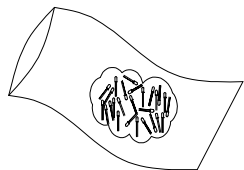


Beam Pattern

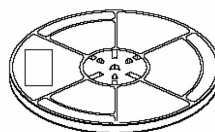
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Round Red Through-hole LED (5 mm) OVLFR3C7

Packing Information: Available in bulk or reel

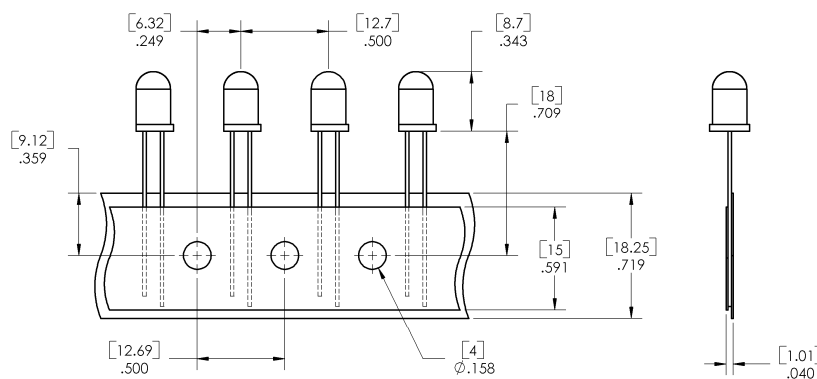


Bulk: 500 pcs/bag



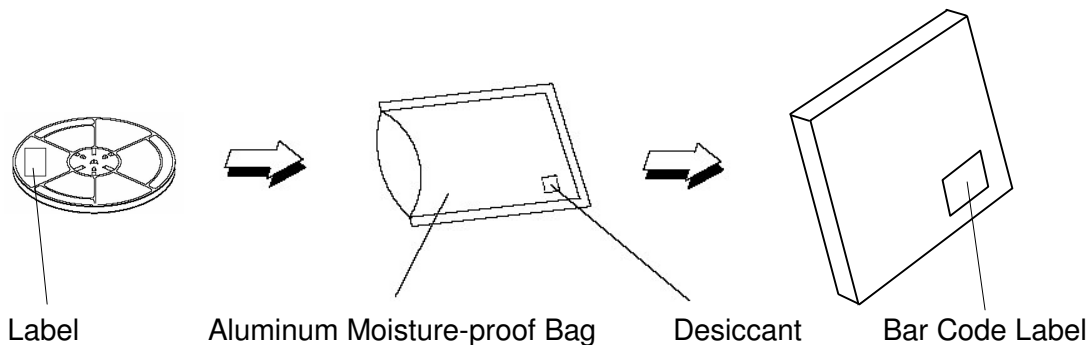
13-inch reel: 1000 pcs/reel

Carrier Tape Dimensions: Loaded quantity 1000 pieces per reel



DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

Moisture Resistant Packaging



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