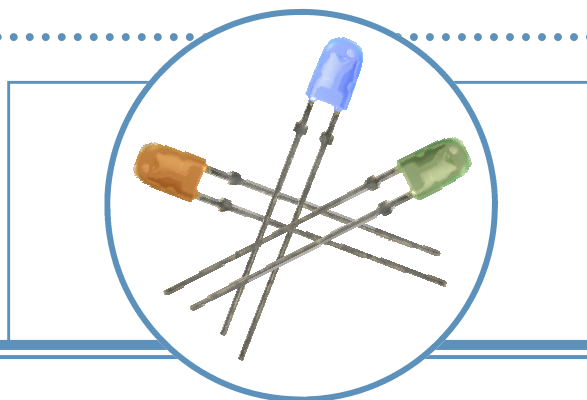


Oval Blue LED Lamp (5mm)

OVLHBKD8

- High luminous intensity
- Defined spatial radiation
- Multiple viewing angles
- UV-resistant epoxy
- Precision optical performance

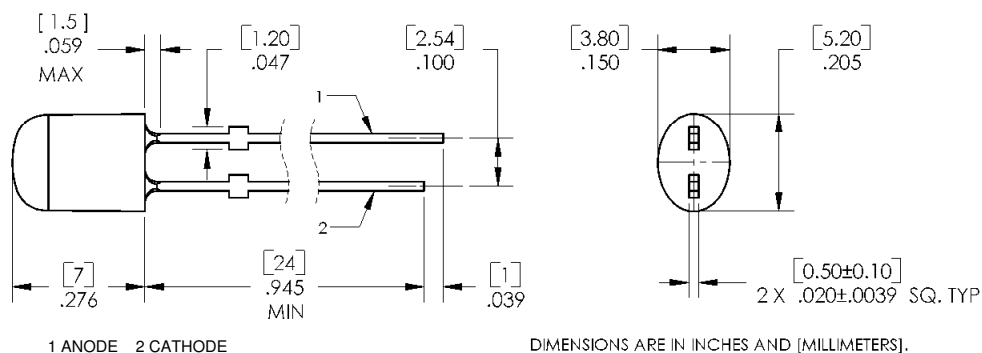


The OVLHBKD8 is designed for superior performance in outdoor environments. Its radiation pattern matches red (OVLHRKD8), green (OVLHGKD8), and orange (OVLHQKD8) devices in identical packages to create LED pixels for full-color video screens.

Applications

- Variable Message Signs
- Indoor/Outdoor Advertising Signage
- Traffic and Highway Signs
- Full-Color Video Signs

| Part Number | Material | Emitted Color | Intensity Typ. mcd | Lens Color |
|-------------|----------|---------------|--------------------|---------------|
| OVLHBKD8 | InGaN | Blue | 500 | Blue Diffused |



Data is subject to change without prior notice.

Oval Blue LED Lamp (5mm)

OVLHBKD8



Absolute Maximum Ratings

T_A = 25° C unless otherwise noted

| | |
|---|---------------|
| Storage Temperature Range | -40 ~ +100 °C |
| Operating Temperature Range | -40 ~ +95 °C |
| Reverse Voltage | 5 V |
| Continuous Forward Current | 25 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 |

Note:

- Solder time less than 3 seconds at temperature extreme.

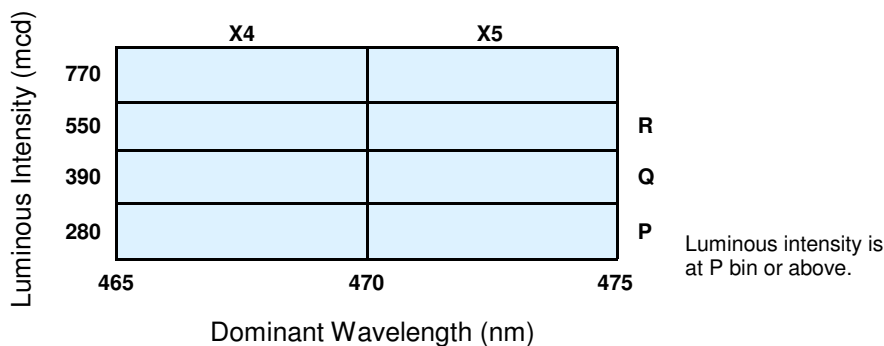
Electrical Characteristics

T_A = 25° C unless otherwise noted

| SYMBOL | PARAMETER | MIN | TYP | MAX | UNITS | CONDITIONS |
|-----------------------|---------------------|------|------|------|-------|------------------------|
| I _v | Luminous Intensity | 280 | 500 | ---- | mcd | I _F = 20mA |
| V _F | Forward Voltage | ---- | 3.4 | 4.0 | V | I _F = 20mA |
| V _F | Forward Voltage | 1.7 | ---- | 2.5 | V | I _F = 1.0μA |
| I _R | Reverse Current | ---- | ---- | 100 | μA | V _R = 5V |
| λ _D | Dominant Wavelength | 465 | 470 | 475 | nm | I _F = 20mA |
| 2Θ _{1/2} H-H | 50% Power Angle | ---- | 110 | ---- | deg | I _F = 20mA |
| 2Θ _{1/2} V-V | | ---- | 50 | ---- | deg | I _F = 20mA |

Standard Bins (I_F = 20mA)

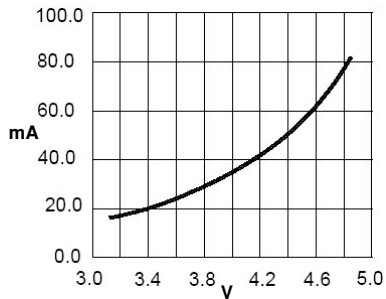
Lamps are sorted to luminous intensity (I_v) and dominant wavelength (λ_D) bins shown. Orders for OVLHBKD8 may be filled with any or all bins contained as below.



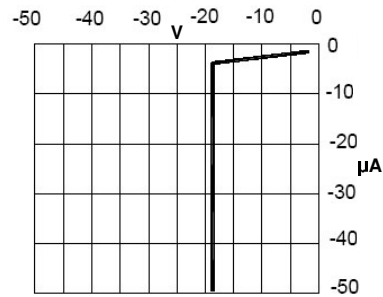
Important Notes:

- 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.

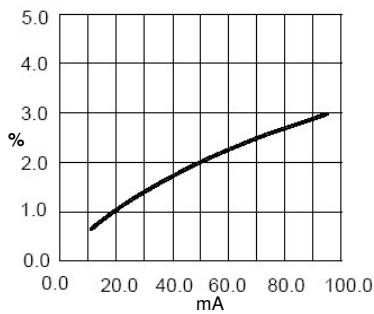
Typical Electro-Optical Characteristics Curves



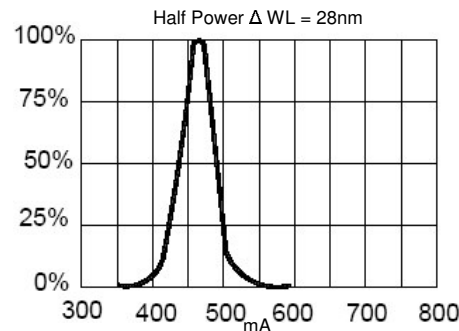
Forward Current vs. Forward Voltage



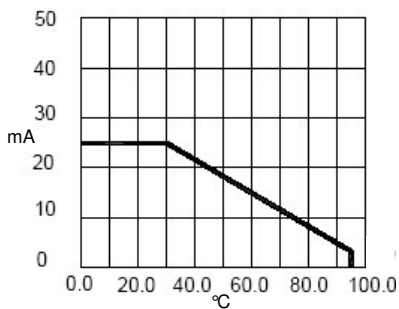
Reverse Current vs. Reverse Voltage



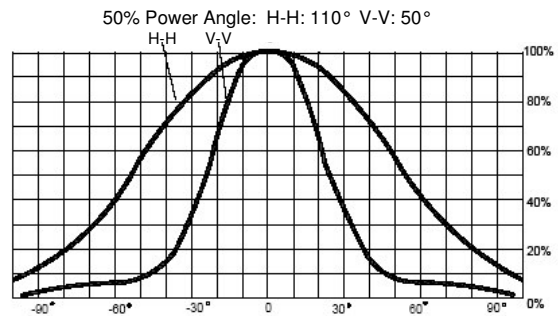
Relative Luminous Intensity vs. Forward Current



Relative Luminous Intensity vs. Wavelength



Maximum Forward DC Current vs. Ambient Temperature



Far Field Pattern

