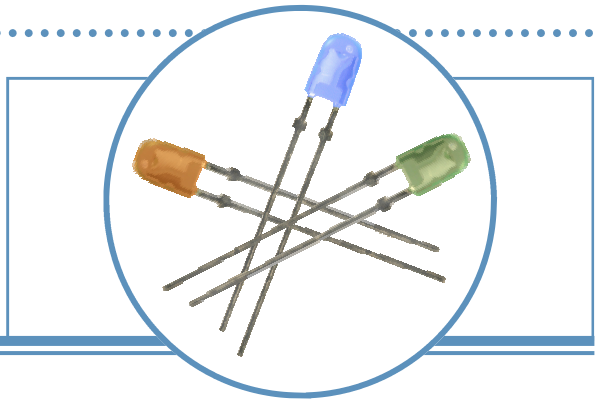
Oval Blue LED Lamp (4mm)

TT electronics
OPTEK Technology

OVLJBGD8

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

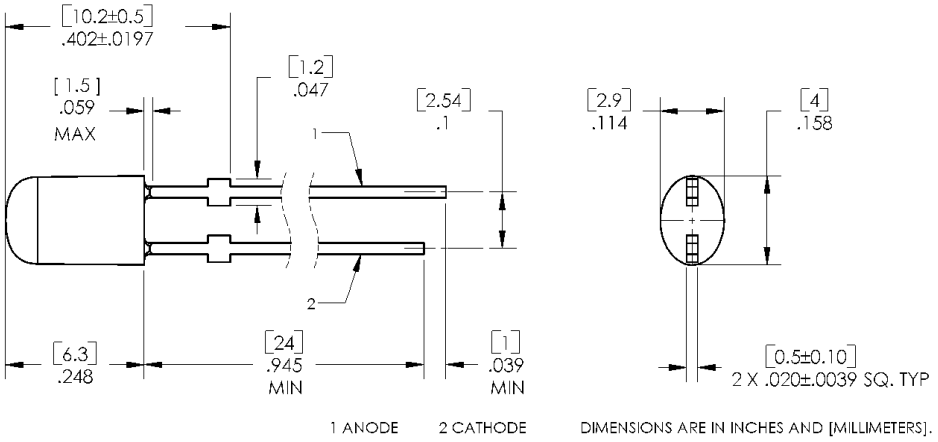


The OVLJBGD8 is designed for superior performance in outdoor environments. Its radiation pattern matches red (OVLJRGD8) and green (OVLJGGD8) devices in identical packages to create LED pixels for full-color video screens.

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
OVLJBGD8	InGaN	Blue	300	Blue Diffused



RoHS

ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICES

Data is subject to change without prior notice.

Oval Blue LED Lamp (4mm)
OVLJBGD8

Absolute Maximum Ratings
T_A = 25° C unless otherwise noted

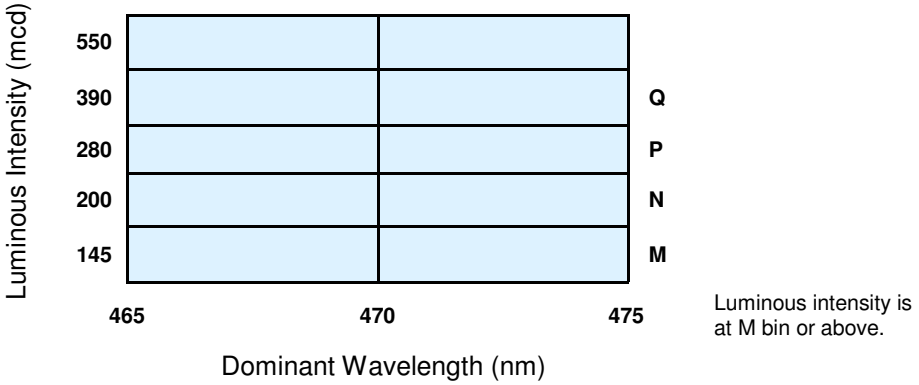
Storage Temperature Range	-40 ~ +100 ℃
Operating Temperature Range	-40 ~ +95 ℃
Reverse Voltage	5 V
Continuous Forward Current	25 mA
Peak Forward Current (10% Duty Cycle, 1KHz)	100 mA
Power Dissipation	105 mW
Lead Soldering Temperature (3mm from the base of the epoxy bulb)[1]	260℃

Note:
1. 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	145	300	----	mcd	I_F = 20mA
V_F	Forward Voltage	----	3.6	4.2	V	I_F = 20mA
I_R	Reverse Current	----	----	100	μA	V_R = 5V
λ_D	Dominant Wavelength	465	470	475	nm	I_F = 20mA
2Θ½H-H	50% Power Angle	----	100	----	deg	I_F = 20mA
2Θ½V-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 OVLJBGD8 may be filled with any or all bins contained as below.

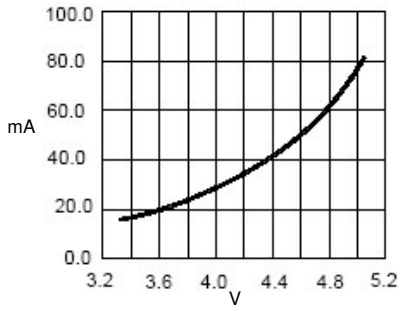


Luminous intensity is at M bin or above.

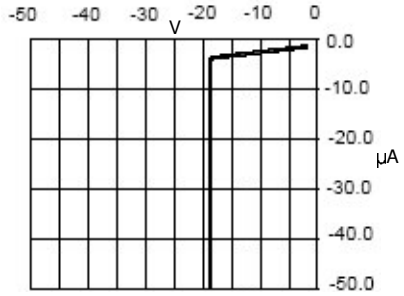
Important Notes:
1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
2. To designate luminous intensity ranks, please contact OPTEK.
3. Pb content <1000PPM.

OPTEK Technology Inc. — 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (972) 323-2200 or (800) 341-4747 FAX: (972) 323-2396 visibleLED@optekinc.com www.optekinc.com

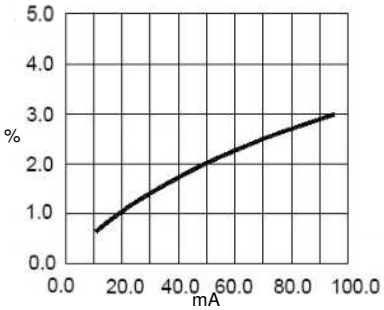
Typical Electro-Optical Characteristics Curves



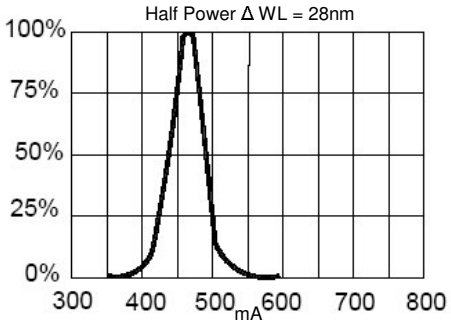
Forward Current vs. Forward Voltage



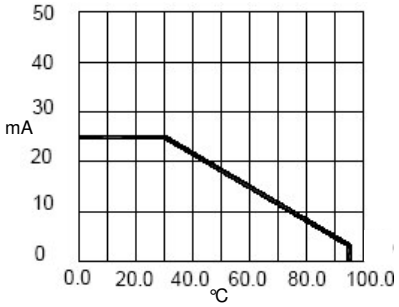
Reverse Current vs. Reverse Voltage



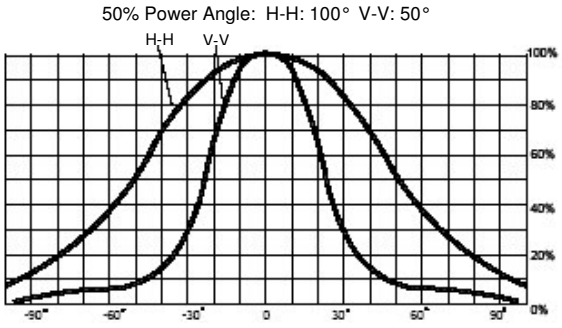
Relative Luminous Intensity vs. Forward Current



Relative Luminous Intensity vs. Wavelength



Maximum Forward DC Current vs. Ambient Temperature



Far Field Pattern

Issue	Change Description	Approval	Date
1.0	Initial Release	J. Haynie	5/26/05

OPTEK Technology Inc. — 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (972) 323-2200 or (800) 341-4747 FAX: (972) 323-2396 visibleLED@optekinc.com www.optekinc.com