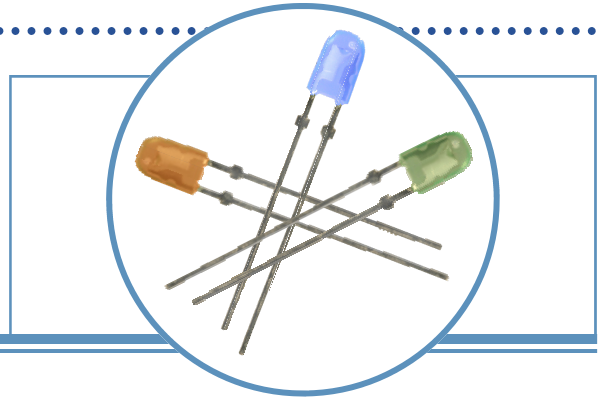


Oval LED Lamp (4 mm)

OVLKxGT6 Series

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

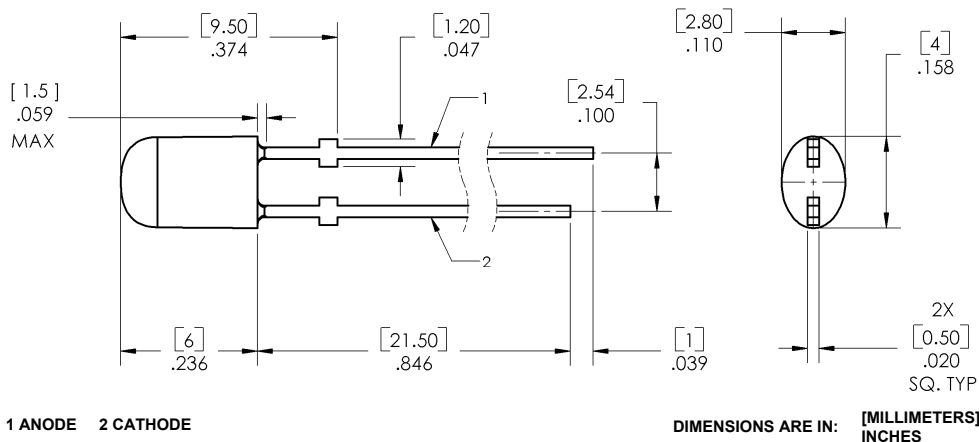


The **OVLKxGT6** is designed for superior performance in outdoor environments. Identical packages and radiation patterns in all three colors allow combinations to create LED pixels for full-color video screens.

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
OVLKBGT6	InGaN	Blue	300	Blue Diffused
OVLKGGT6	InGaN	Green	1100	Green Diffused
OVLKQGT6	AllnGaP	Red-Orange	430	Orange Diffused



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.

Oval LED Lamp

OVLKxGT6



Absolute Maximum Ratings

T_A = 25° C unless otherwise noted

Storage Temperature Range	Blue, Green	-40 ~ +100 °C
	Red-Orange	-30 ~ +100 °C
Operating Temperature Range	All	-30 ~ +80 °C
Reverse Voltage	Blue, Green	5 V
	Red-Orange	3 V
Continuous Forward Current	All	30 mA
Peak Forward Current (10% Duty Cycle, 1 kHz)	All	100 mA
Power Dissipation	Blue, Green	120 mW
	Red-Orange	80 mW
Lead Soldering Temperature (5 seconds max)	All	260° C

Electrical Characteristics

SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS	CONDITIONS
I _v	Luminous Intensity	Blue	220	300	----	mcd	I _F = 20 mA
		Green	725	1100	----		
		Red-Orange	350	430	----		
V _F	Forward Voltage	Blue	----	3.4	3.9	V	I _F = 20 mA
		Green	----	3.3	3.9		
		Red-Orange	----	2.1	2.7		
I _R	Reverse Current	Blue	----	----	2	μA	V _R = 5V
		Green	----	----	2		V _R = 5V
		Red-Orange	----	----	50		V _R = 3V
λ _D	Dominant Wavelength	Blue	465	470	475	nm	I _F = 20 mA
		Green	520	525	535		
		Red-Orange	611	616	621		
2 Θ _{1/2}	50% Power Angle	All	----	x: 100 y: 60	----	deg	I _F = 20 mA

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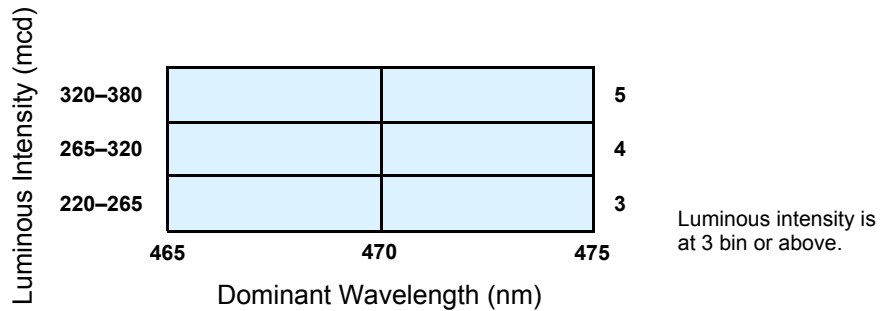
Oval LED Lamp

OVLKxGT6

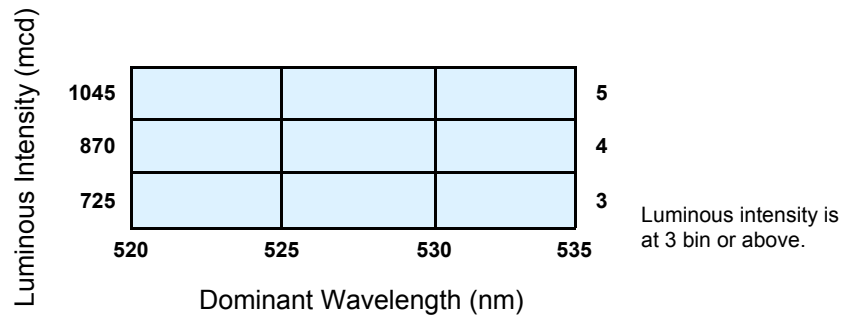
Standard Bins ($I_F = 20 \text{ mA}$)

Lamps are sorted to luminous intensity (I_V) and dominant wavelength (λ_D) bins shown. Orders for OVLKxGT6 may be filled with any or all bins contained as below.

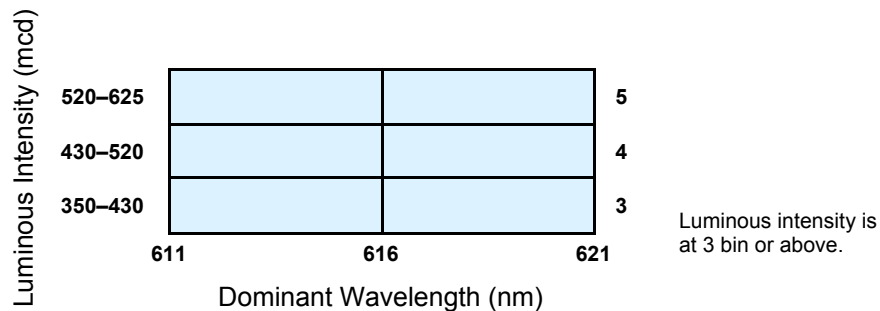
OVLKBGT6 (BLUE)



OVLKGGT6 (GREEN)



OVLKCGT6 (RED-ORANGE)

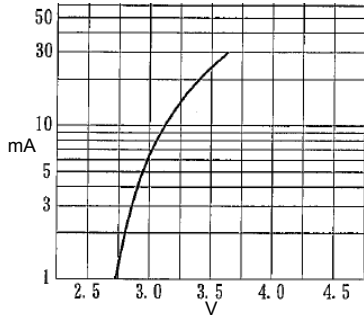


Important Notes:

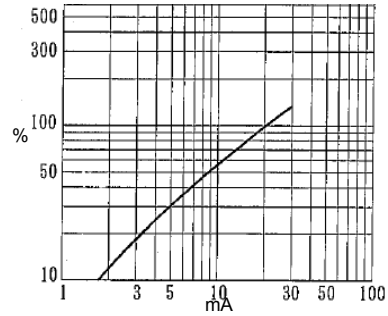
1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
2. To designate luminous intensity ranks, please contact OPTEK.
3. When soldering, leave 2.5 mm minimum clearance between the resin base and the soldering point.

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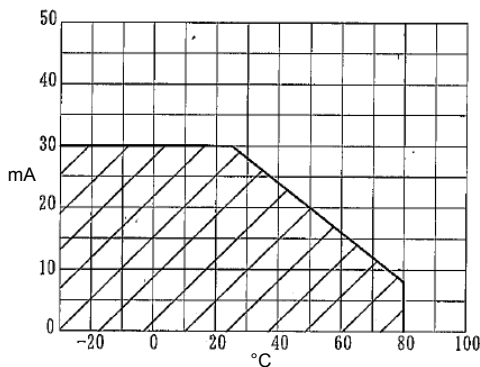
Typical Electro-Optical Characteristics Curves (BLUE)



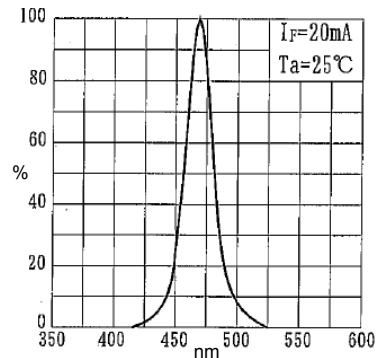
Forward Current vs Forward Voltage



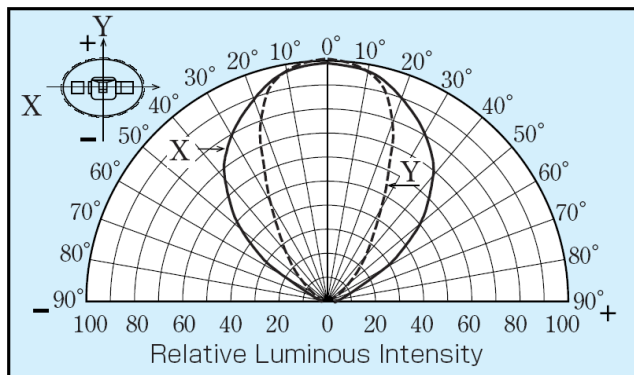
Relative Luminous Intensity vs Forward Current



Maximum Forward DC Current vs Ambient Temperature

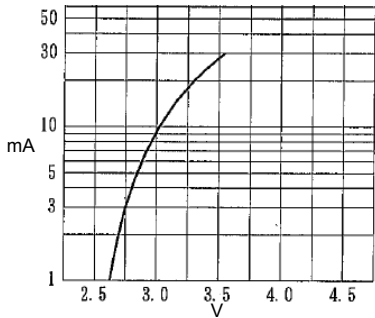


Relative Luminous Intensity vs Wavelength

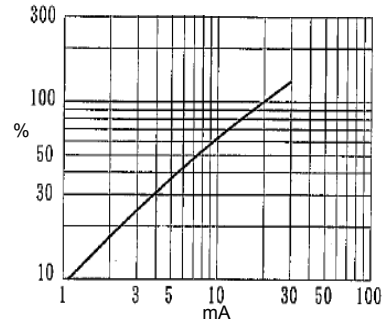


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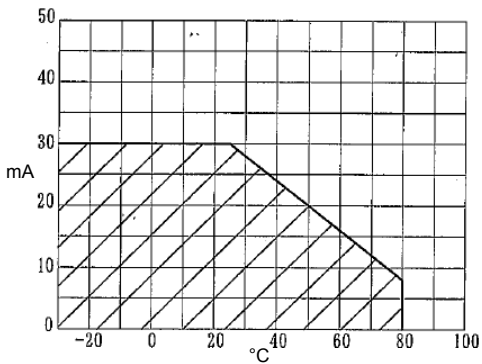
Typical Electro-Optical Characteristics Curves (GREEN)



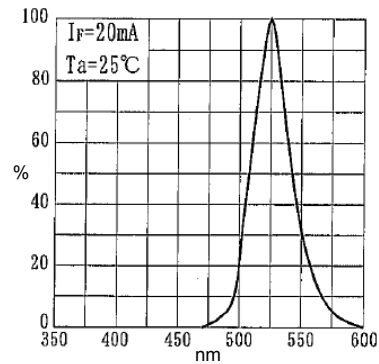
Forward Current vs Forward Voltage



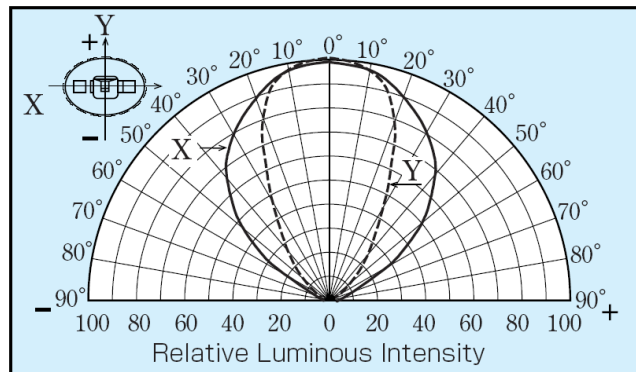
Relative Luminous Intensity vs Forward Current



Maximum Forward DC Current vs Ambient Temperature

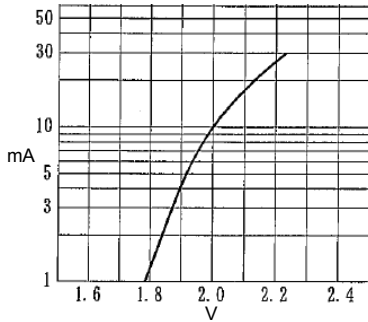


Relative Luminous Intensity vs Wavelength

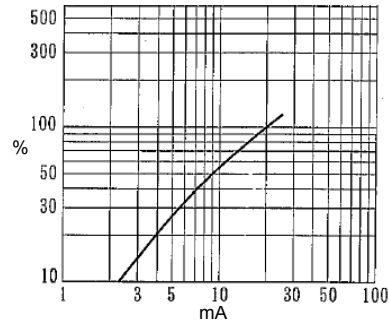


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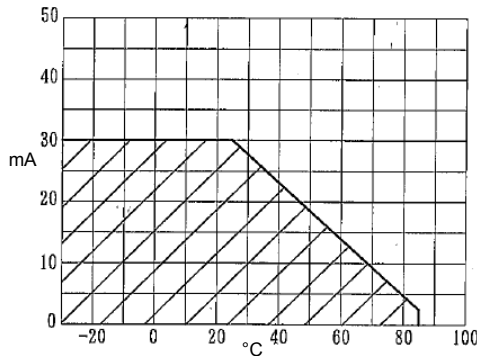
Typical Electro-Optical Characteristics Curves (RED-ORANGE)



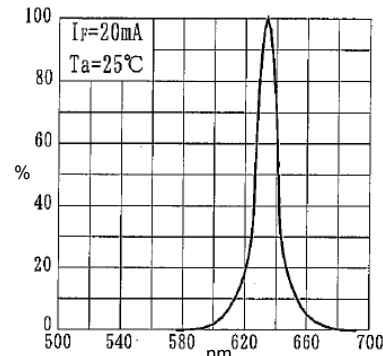
Forward Current vs Forward Voltage



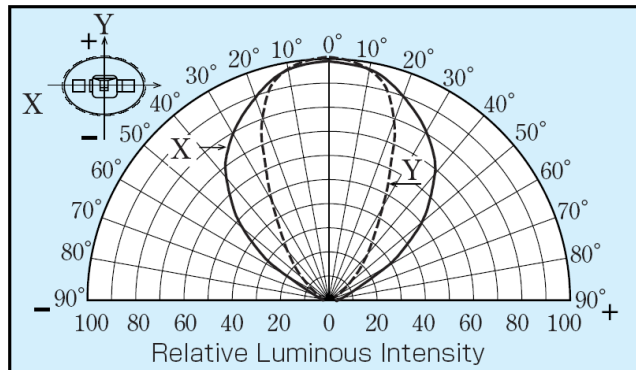
Relative Luminous Intensity vs Forward Current



Maximum Forward DC Current vs Ambient Temperature



Relative Luminous Intensity vs Wavelength

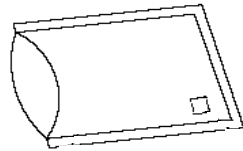


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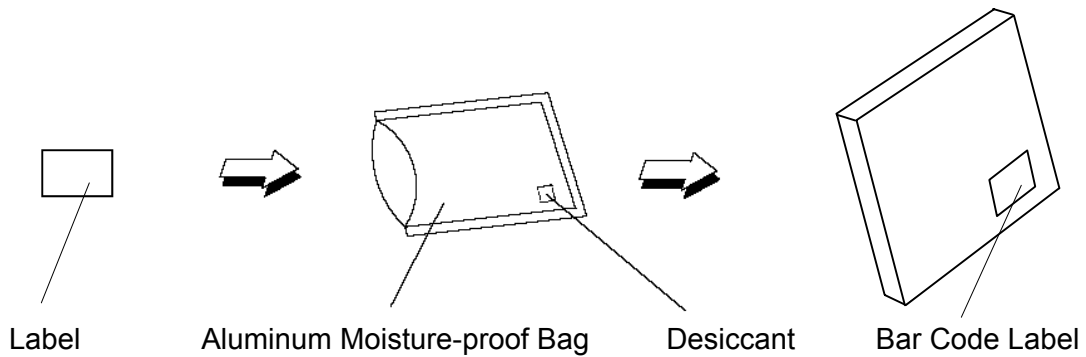
Oval LED Lamp

OVLKxGT6

Quantity: 500 pieces per bag



Moisture Resistant Packaging



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