



# American Opto Plus LED

## L-513NBGC-32D

5mm Dia LED LAMP -WATER CLEAR  
(GaN Bluegreen)

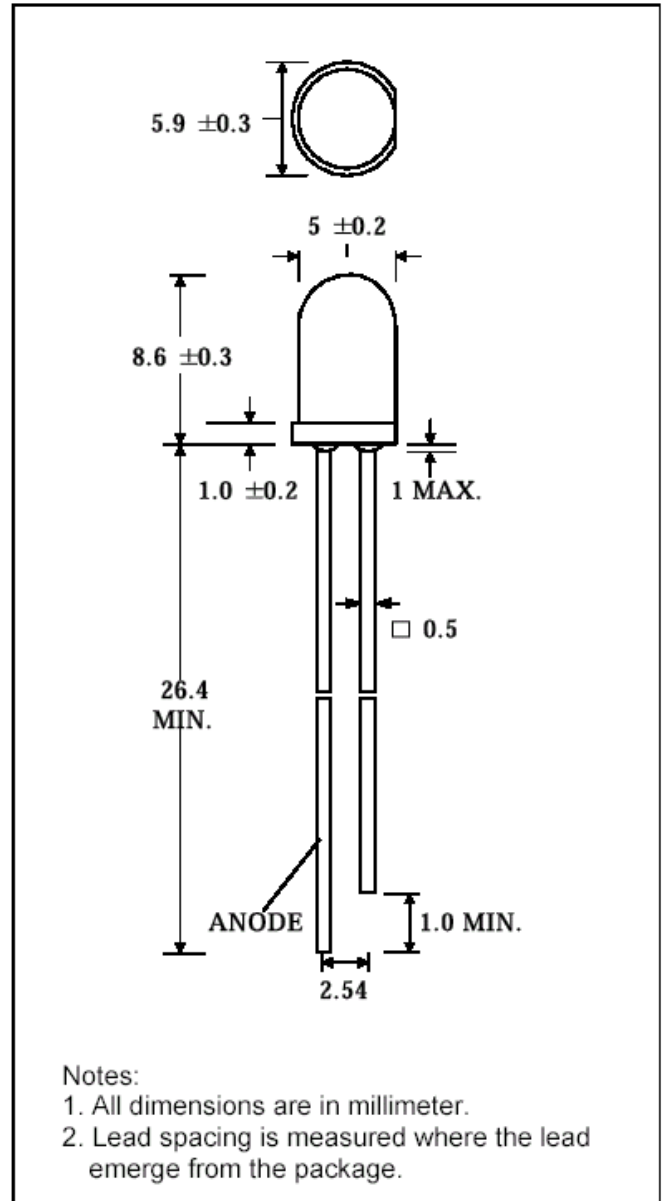
**MAIN FEATURES**  
 5.0mm DIA LED LAMP  
 POPULAR T-1 3/4 ,1" LEAD  
 I.C. COMPATABLE  
 LOW POWER CONSUMPTION

### DESCRIPTION

- Super bright LED Lamp
- Round type
- T1-3/4 (5mm) diameter
- Lens color: Water Clear
- With Flange
- Solder leads without stand-off

### FEATURES

- Emitted color: Super Green
- High Luminous intensity
- Technology: INGaN
- Peak wavelength  $\lambda_p = 507\text{nm}$
- Viewing angle:  $32^\circ$



### SELECTION GUIDE

Chip Material	Chip Emitted	Lens Color	Viewing Angle
INGaN	Super Green	Water Clear	$32^\circ$



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**ABSOLUTE MAXIMUM RATINGS**

(Ta=25 °C)

PARAMETER	SYMBOL	MAX. RATING	Unit
Power Dissipation	$P_D$	120	mW
Peak Forward Current (1/10 Duty Cycle @1KHz )	$I_{PF}$	100	mA
Continuous Forward Current	$I_{AF}$	30	mA
Reverse Voltage	$V_R$	5.0	V
Operating Temperature Range	$T_{OPR}$	-20~+80	°C
Storage Temperature Range	$T_{STG}$	-30~+100	°C

Solder temperature 1.6 mm from body for 3 seconds at 260 °C

**OPTICAL-ELECTRICAL CHARACTERISTICS**

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Luminous Intensity	$I_V$	$I_F = 20mA$	5000	7500		mcd
Forward Voltage	$V_F$	$I_F = 20mA$		3.5	4.0	V
Reverse Current	$I_R$	$V_R = 5V$			10	uA
Viewing Angle	2θ1/2	$I_F = 20mA$		32		deg.
Peak Wavelength	$\lambda_P$	$I_F = 20mA$		507		nm
Dominant Wavelength	$\lambda_D$	$I_F = 20mA$		505		nm
Spectrum Radiation Bandwidth	$\Delta \lambda$	$I_F = 20mA$		30		nm

\*Tolerance of Viewing Angle: -10 / +5 deg.



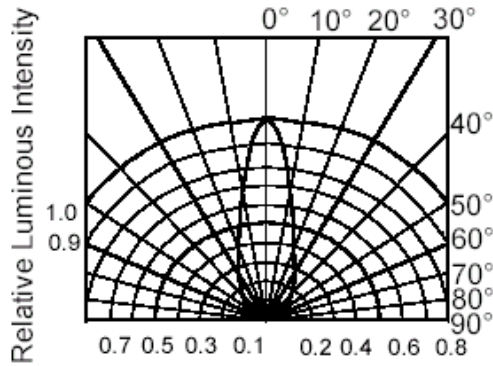
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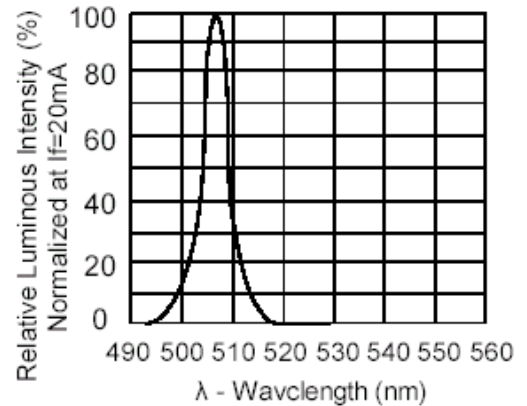
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- 5.0mm DIA LED LAMP
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- LOW POWER CONSUMPTION

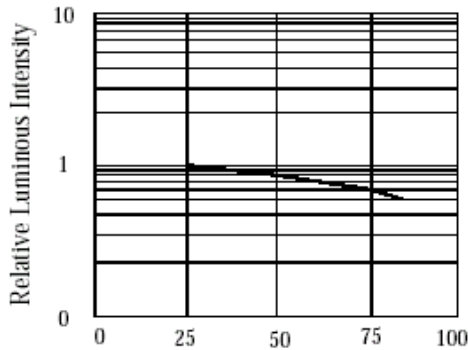
## TYPICAL OPTICAL-ELECTRICAL CHARACTERISTIC CURVES



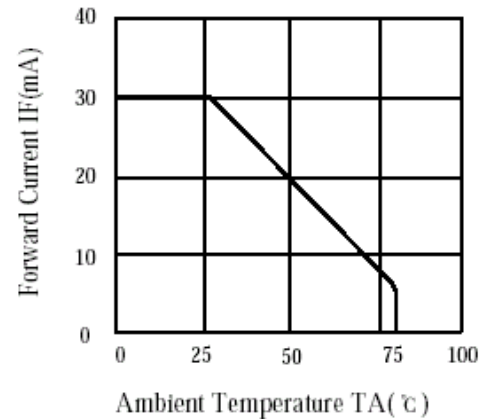
**RADIATION DIAGRAM**



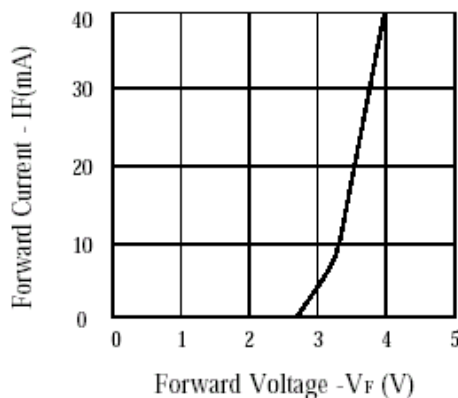
**RELATIVE LUMINOUS INTENSITY  
Vs. WAVELENGTH**



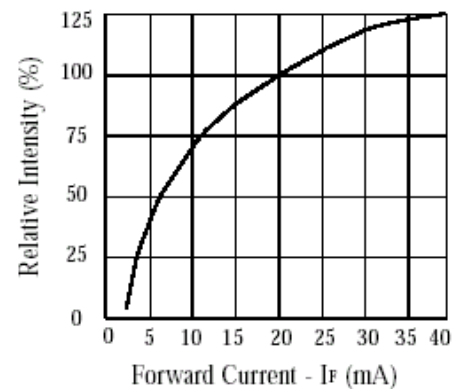
**LUMINOUS INTENSITY  
Vs. AMBIENT TEMPERATURE**



**FORWARD CURRENT  
Vs. AMBIENT TEMPERATURE**



**FORWARD CURRENT  
Vs. FORWARD VOLTAGE**



**LUMINOUS INTENSITY  
Vs. FORWARD CURRENT**