# 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**

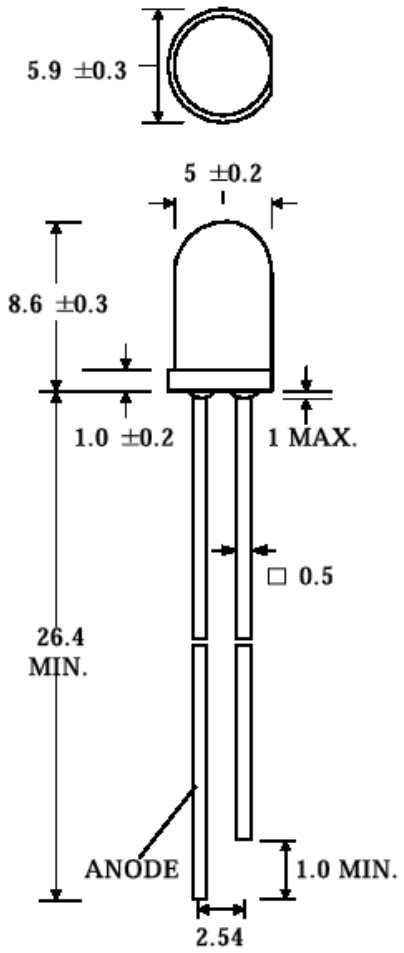
**LOW POWER CONSUMPTION**

## 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 $\lambda_p$ = 507nm
- Viewing angle: 32°




Notes:
1. All dimensions are in millimeter.
2. Lead spacing is measured where the lead emerge from the package.

## SELECTION GUIDE

| Chip Material | Chip Emitted | Lens Color | Viewing Angle |
|---|---|---|---|
| INGaN | Super Green | Water Clear | 32° |

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## ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

| 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 | ℃ |
| Storage Temperature Range | $T_{STG}$ | -30~+100 | ℃ |
| Solder temperature 1.6 mm from body for 3 seconds at 260℃ | | | |

## 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 | $\triangle\lambda$ | $I_F$ = 20mA | | 30 | | nm |

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

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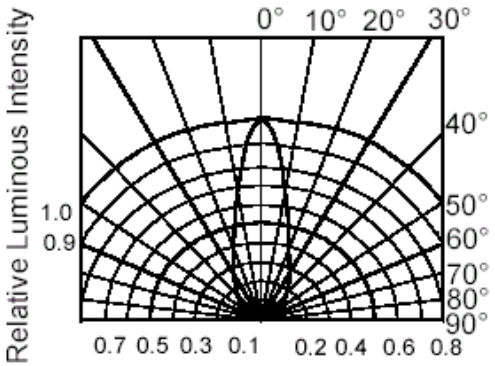
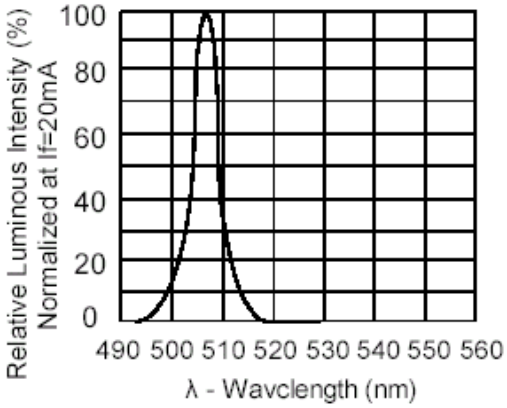
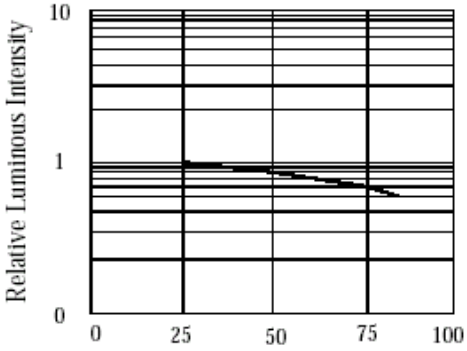
## TYPICAL OPTICAL-ELECTRICAL CHARACTERISTIC CURVES



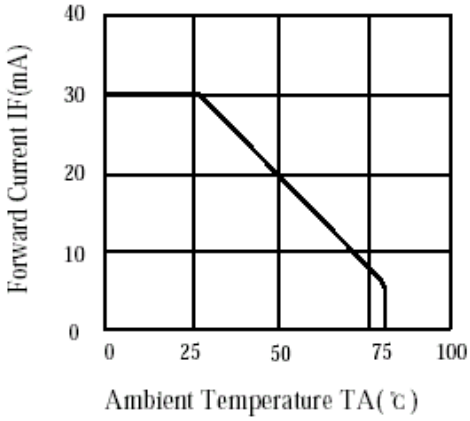

**RADIATION DIAGRAM**



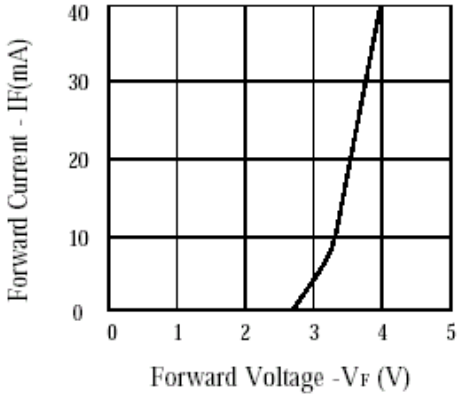

**RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH**



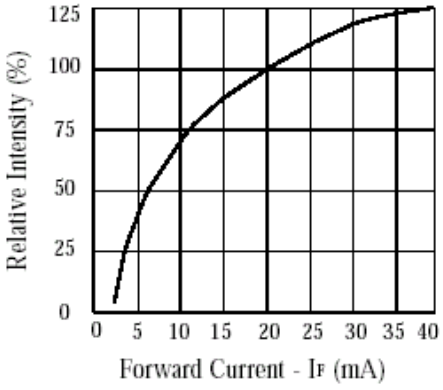

**LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE**




**FORWARD CURRENT Vs. AMBIENT TEMPERATURE**




**FORWARD CURRENT Vs. FORWARD VOLTAGE**




**LUMINOUS INTENSITY Vs. FORWARD CURRENT**