



# American Opto Plus LED L513YT

5mm Dia LED LAMP – Yellow Transparent

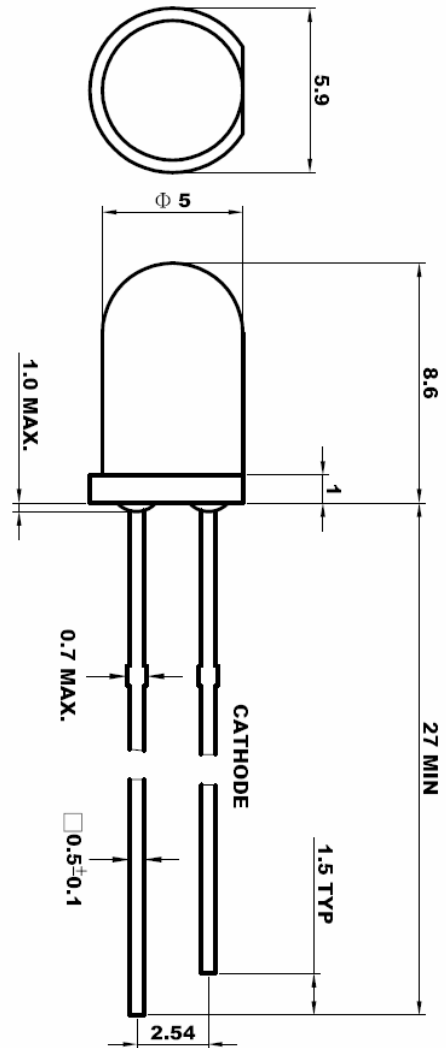
- ◆ 5.0mm DIA LED LAMP
- ◆ I.C. COMPATIBLE
- ◆ LOW POWER CONSUMPTION
- ◆ LONG LAMP LIFE

## DESCRIPTION

- Round type
- T1-3/4 (5mm) diameter
- Lens color: Yellow Transparent
- With flange
- Solder leads without stand-off

## FEATURES

- Emitted color: Yellow
- Technology: GaAsP
- Viewing angle: 30°
- Peak wavelength  $\lambda_p = 589\text{nm}$



## SELECTION GUIDE

| Chip Material | Chip Emitted | Lens Color         | Viewing Angle |
|---------------|--------------|--------------------|---------------|
| GaAsP         | Yellow       | Yellow Transparent | 30°           |



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## ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

| Parameter                                     | Symbol    | Max Rating | Unit |
|---|-----------|------------|------|
| Power Dissipation                             | $P_D$     | 75         | mW   |
| Peak Forward Current (1/10 Duty Cycle @1KHz ) | $I_{PF}$  | 100        | mA   |
| Forward Current                               | $I_F$     | 35         | mA   |
| Reverse Voltage                               | $V_R$     | 5.0        | V    |
| Operating Temperature Range                   | $T_{OPR}$ | -40~+85    | °C   |
| Storage Temperature Range                     | $T_{STG}$ | -40~+85    | °C   |

Solder temperature 2 mm from body for 3 seconds at 260°C

## OPTICAL-ELECTRICAL CHARACTERISTICS

| Parameter                    | Symbol          | Test Condition      | Min | Typ | Max | Unit |
|------------------------------|-----------------|---------------------|-----|-----|-----|------|
| Luminous Intensity           | $I_V$           | $I_F = 10\text{mA}$ | 25  | 40  |     | mcd  |
| Forward Voltage              | $V_F$           | $I_F = 10\text{mA}$ |     | 1.9 | 2.5 | V    |
| Reverse Current              | $I_R$           | $V_R = 5\text{V}$   |     |     | 10  | uA   |
| Viewing Angle                | 2θ1/2           | $I_F = 10\text{mA}$ |     | 30  |     | deg. |
| Peak Wavelength              | $\lambda_P$     | $I_F = 10\text{mA}$ |     | 589 |     | nm   |
| Dominant Wavelength          | $\lambda_D$     | $I_F = 10\text{mA}$ |     | 590 |     | nm   |
| Spectrum Radiation Bandwidth | $\Delta\lambda$ | $I_F = 10\text{mA}$ |     | 35  |     | nm   |

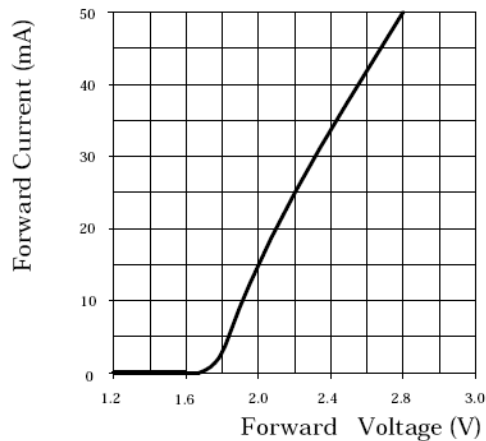


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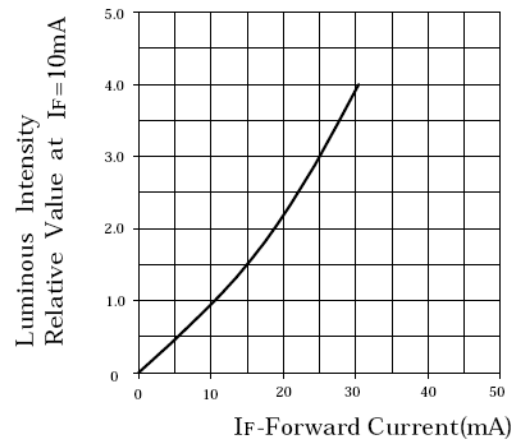
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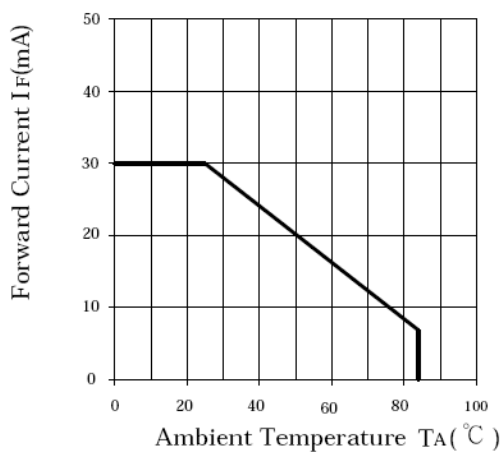
## TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES



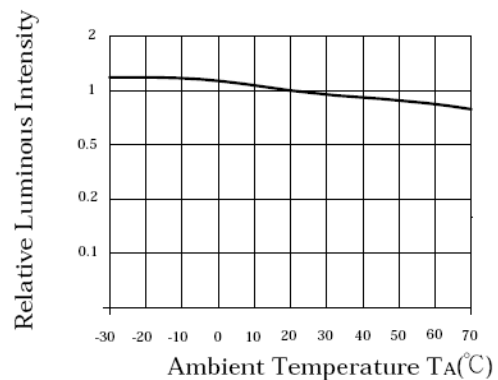
Forward Current Vs.  
Forward Voltage



Luminous Intensity Vs.  
Forward Current



Forward Current  
Derating Curve



Luminous Intensity Vs.  
Ambient Temperature