



# Opto Plus LED Corp.

## OPL-3015YGD-60

3 mm Dia LED Lamp

### ● EDIT HISTORY

Version : Aug.20, 2012

Preliminary Spec.

Manufacture	Examination	Approving



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## OPL-3015YGD-60

3 mm Dia LED Lamp

### DESCRIPTION

Chip Material : Y: GaAsP /GaAs

G: GaP/GaP

Emitting Color : Y: Yellow

G: Green

Lens Color : Water Diffused

### FEATURES

Low power consumption.

High efficiency

Round type

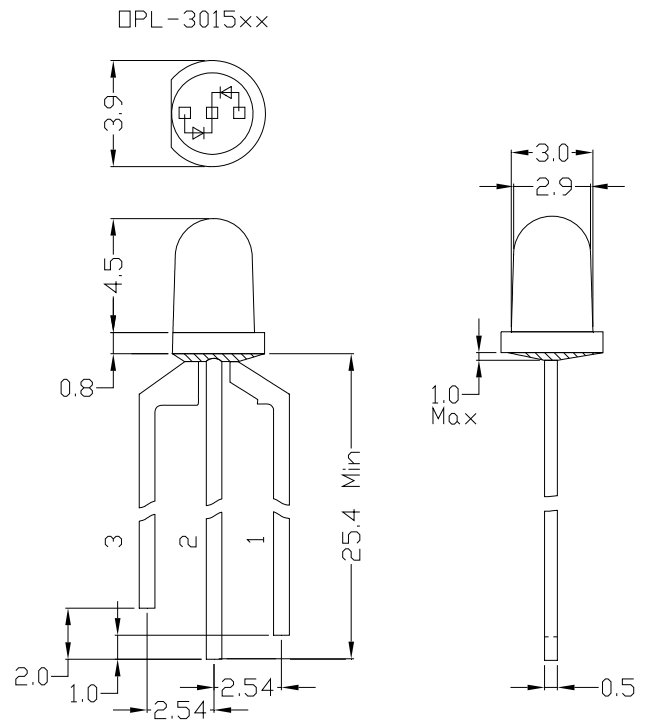
T1(3mm)diameter

With Flange

Solder leads without stand-off

Compliant with RoHs

### PACKAGE DIMENSIONS



	GREEN	RED ORANGE YELLOW
PIN 1	ANODE	
PIN 2	CATHODE	CATHODE
PIN 3		ANODE

### NOTES

1. All dimensions are in millimeters.
2. Lead spacing is measured where the leads emerge from the package.

Tolerance is  $\pm 0.25\text{mm}$

Unless Otherwise Specified.

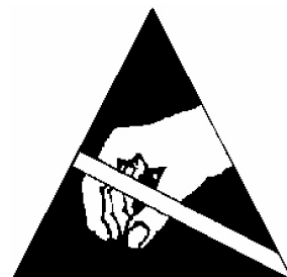
### RoHS Compliance

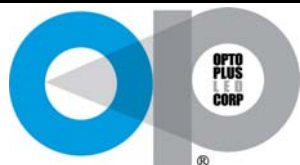


### Pb free.



### ESD





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### ● Y: YELLOW (GaAsP/GaP)

#### ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Yellow	Unit
Power dissipation	P <sub>AD</sub>	60	mW
Reverse voltage	V <sub>R</sub>	5	V
Continuous forward current	I <sub>AF</sub>	25	mA
Temperature coefficient	I/C	0.4	mA/°C
Pulse current	I <sub>PF</sub>	100	mA
Operating temperature	T <sub>OPR</sub>	-25 to +85	°C
Storage temperature	T <sub>STG</sub>	-40 to +100	°C
Soldering Condition	T <sub>sd</sub>	265°C/5set	°C

#### ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	-	2.1	2.5	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	50	μA
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	-	589	-	nm
Luminous intensity	I <sub>V</sub>	I <sub>F</sub> =20mA	-	10	-	mcd
Spectral radiation bandwidth	Δλ	I <sub>F</sub> =20mA	-	35	-	nm
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	60	-	deg

#### NOTE:

Luminous Intensity Measurement allowance is ± 10%.

2θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

The dominant wavelength is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.



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## OPL-3015YGD-60

3 mm Dia LED Lamp

### ● G: YELLOW GREEN (GaP/GaP)

ABSOLUTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Yellow Green	Unit
Power dissipation	P <sub>AD</sub>	80	mW
Reverse voltage	V <sub>R</sub>	5	V
Continuous forward current	I <sub>AF</sub>	30	mA
Temperature coefficient	I/C	0.4	mA/°C
Pulse current	I <sub>PF</sub>	100	mA
Operating temperature	T <sub>OPR</sub>	-25 to +85	°C
Storage temperature	T <sub>STG</sub>	-40 to +100	°C
Soldering Condition	T <sub>sd</sub>	265°C/5set	°C

ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	-	2.0	2.6	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	50	μA
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	-	568	-	nm
Luminous intensity	I <sub>V</sub>	I <sub>F</sub> =20mA	-	10	-	mcd
Spectral radiation bandwidth	Δλ	I <sub>F</sub> =20mA	-	30	-	nm
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	60	-	deg

**NOTE:**

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## OPL-3015YGD-60

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### ● Y: YELLOW (GaAsP/GaP)

#### Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)

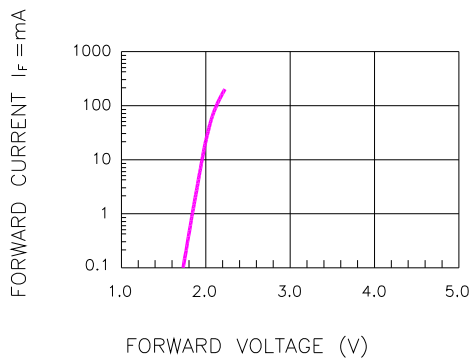


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

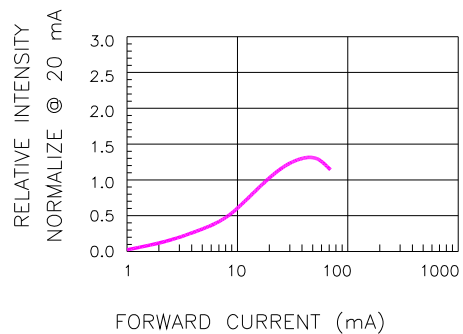


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

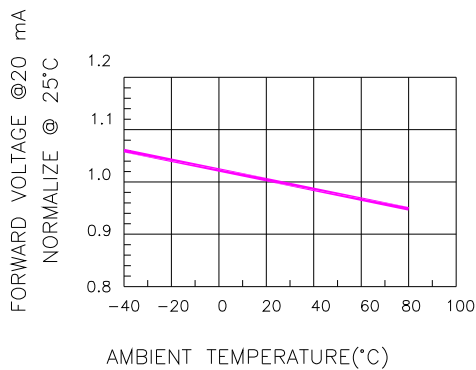


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

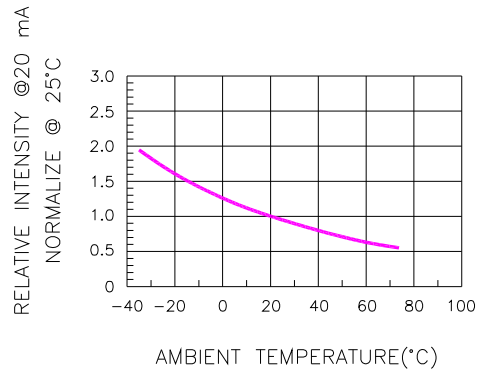


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

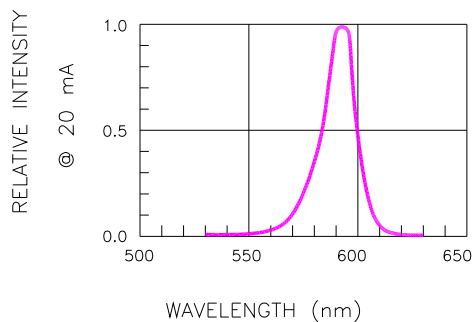


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

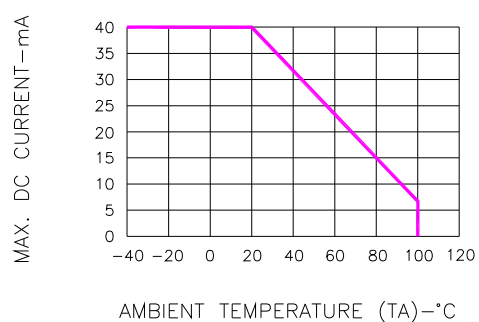


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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#### Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)

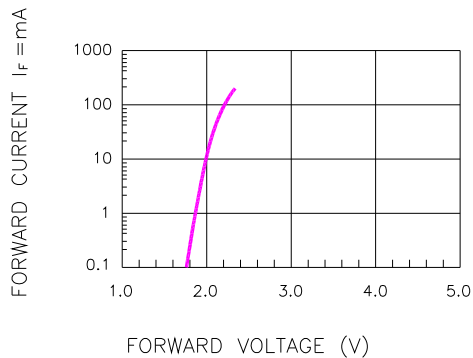


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

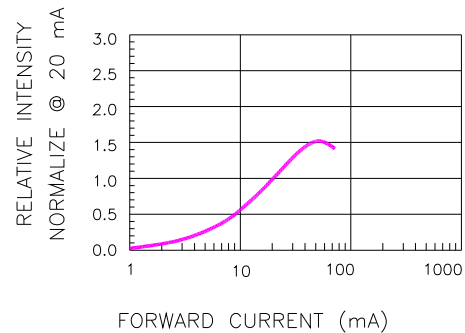


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

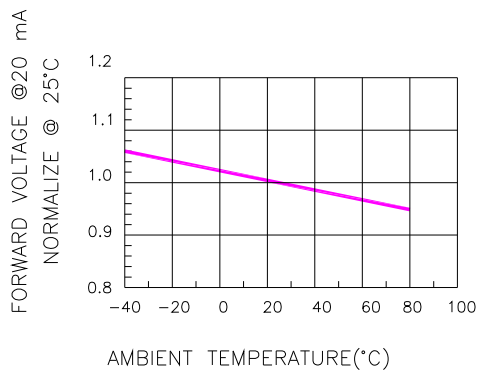


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

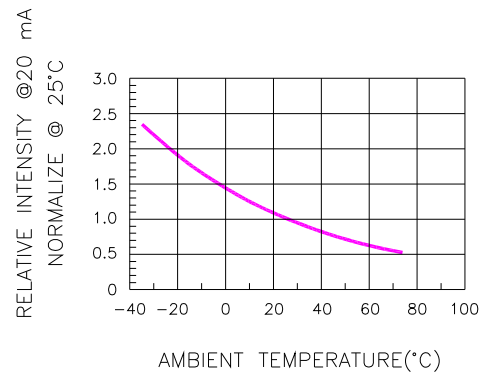


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

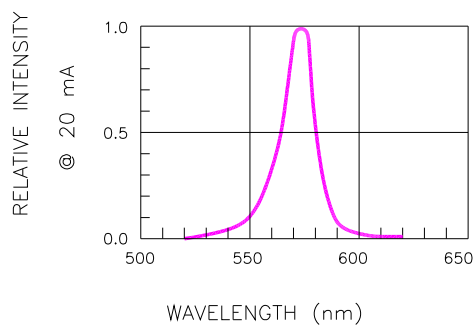


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

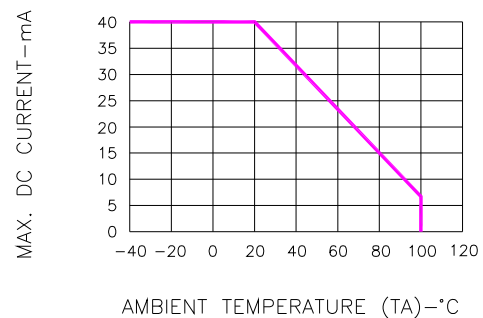


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE