



American Opto Plus LED Corp.

L513LGC

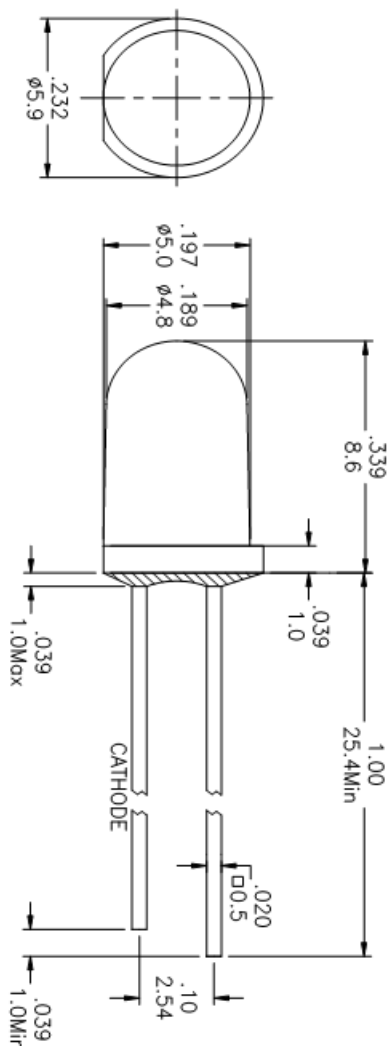
5mm Green LED Lamp

DESCRIPTION

- Round Type
- 5mm Diameter
- Lens Color: Water Clear
- With Flange
- Solder leads without standoffs

FEATURES

- Emitted Color: Green
- High Luminous Intensity
- Technology: AlGaInP
- Viewing Angle: 30°



NOTES:

1. All dimensions are in millimeters tolerance is $\pm 0.25\text{mm}$ unless otherwise noted;

Part Number	Material	Lens Color	
		Emitted	Lens
L513LGC	AlGaInP	Green	Water Clear



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Ratings	Unit
DC Forward Current	I_F	30	mA
Peak Pulsed Forward Current	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_d	78	mW
Operating temperature range	T_{opr}	-40~+85	°C
Storage temperature range	T_{stg}	-40~+100	°C
Lead Soldering Temperature	T_{sld}	Max. 260°C for 5 sec Max. (3mm from the epoxy body)	

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R=5V$	--	--	100	μA
Forward Voltage	V_F	$I_F=20mA$	--	2.0	2.6	V
Luminous Intensity	I_v		380	640	1080	mcd
Dominant Wavelength	λ_D		--	570	--	nm
Viewing Angle	2 θ 1/2		--	30	--	deg

*Note: I_{FP} = Pulse Width $\leq 10ms$, Duty Ratio $\leq 1/10$



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LUMINOUS INTENSITY RANK LIMITS ($I_F = 20\text{mA}$)

Unit: mcd

Code	Min	Max
24	380	490
25	490	640
26	640	830
27	830	1080

DOMINANT WAVELENGTH RANK LIMITS ($I_F = 20\text{mA}$)

Unit: nm

Code	Min	Max
YG4	567	569
YG5	569	571
YG6	571	573
YG7	573	575
YG8	575	577

FORWARD VOLTAGE RANK LIMITS ($I_F = 20\text{mA}$)

Unit: V

Code	Min	Max
B	1.6	1.8
C	1.8	2.0
D	2.0	2.2
E	2.2	2.4
F	2.4	2.6



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TYPICAL ELECTRICAL-OPTICAL CHARACTERISTIC CURVES

Fig 1. Forward Current vs. Forward Voltage

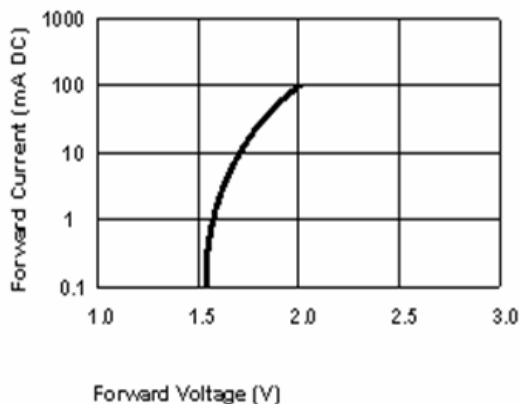


Fig 2. Relative Intensity vs. Forward Current

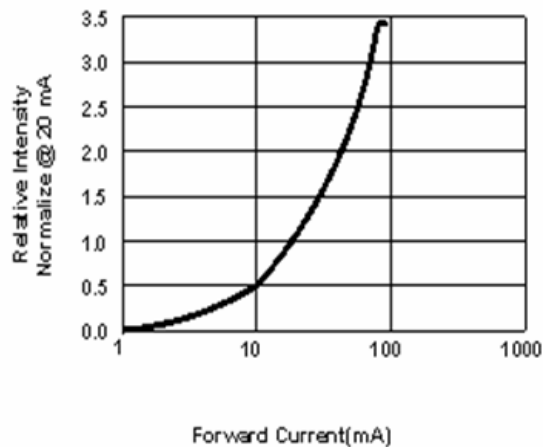


Fig 3. Forward Voltage vs. Temperature

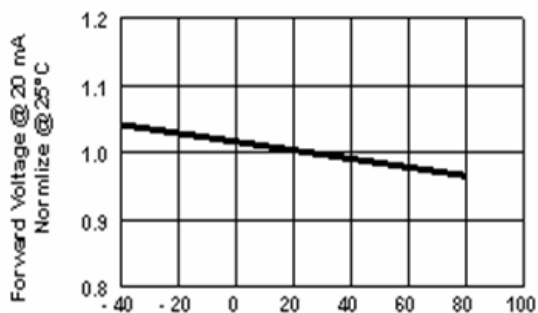


Fig 4. Relative Intensity vs. Temperature

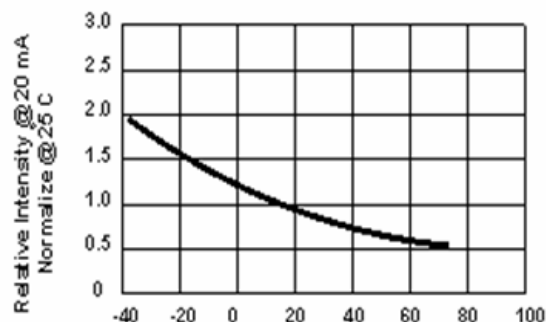


Fig 5. Relative Intensity Vs. Wavelength

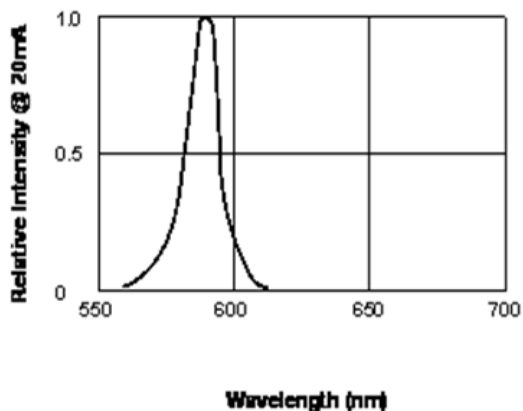
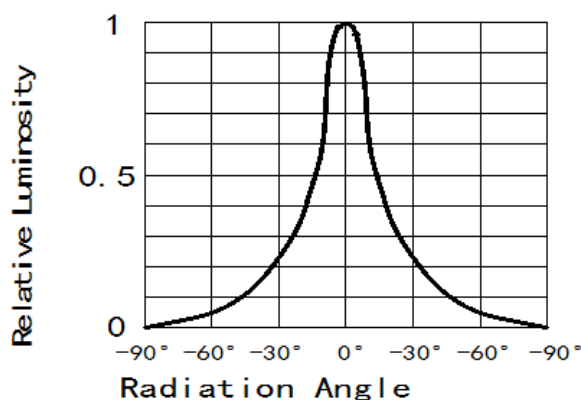


Fig 6. Relative Luminous Intensity vs. Radiation Angle





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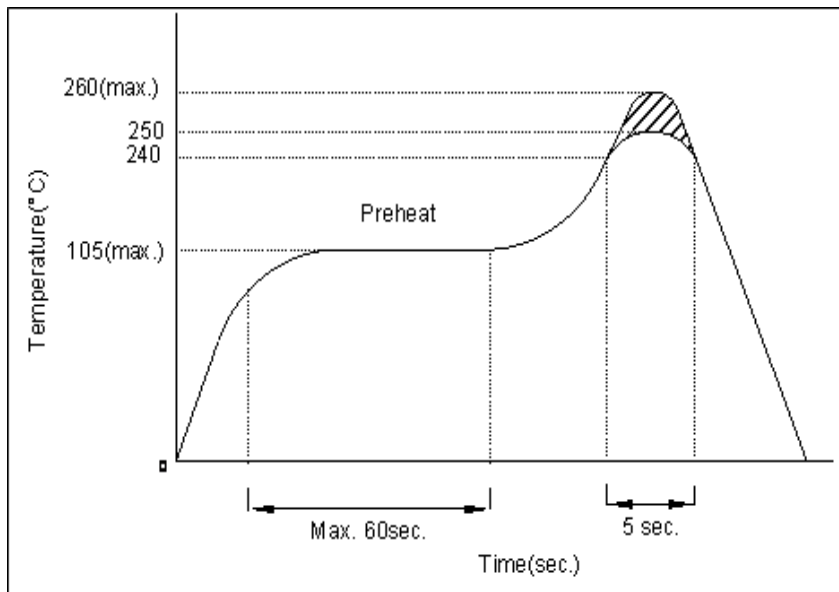
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PRECAUTIONS FOR USE

1. Recommended Soldering Conditions

Wave Soldering



2. Soldering Iron

Basic spec is ≤ 5 sec. when 260°C . If temperature is higher, time should be shorter ($+10^{\circ}\text{C} \rightarrow -1$ sec.). Power dissipation of iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C

3. Static Electricity

- Static electricity or surge voltage damages LEDs. It is recommended that a wrist band or an anti-electrostatic glove be used when handling the LEDs.
- All devices, equipment and machinery must be properly grounded. It is recommended that measures be taken against surge voltage to the equipment that mounts the LEDs.