



American Opto Plus LED Corp.

L354QGC

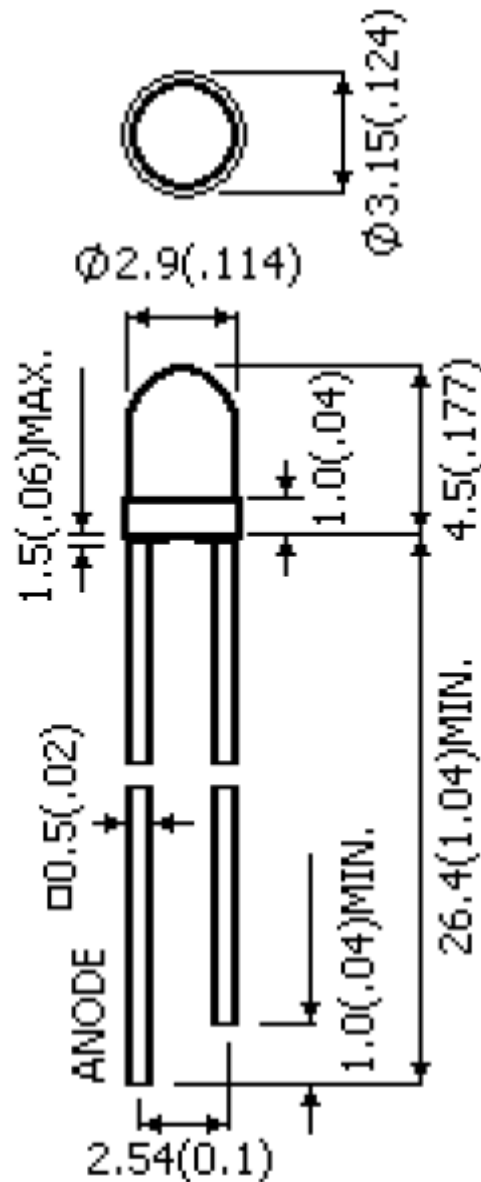
3mm Green LED Lamp

DESCRIPTION

- Round Type
- 3mm Diameter
- Lens Color: Water Clear
- With Flange
- Solder leads without standoff

FEATURES

- Emitted Color: Green
- Technology: GaP
- Viewing Angle: 36°



Notes:

1. All dimensions are in millimeters tolerance is ± 0.25 mm unless otherwise noted;
2. Specifications are subject to change without notice.

Part Number	Material	Lens Color	
		Emitted	Lens
L354QGC	GaP	Green	Water Clear



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Ratings	Unit
Power Dissipation	Pd	85	mW
Peak Forward Current Duty (1/10@1KHz)	I _{fp}	100	mA
Forward Current	I _f	20	mA
Reverse Current @ 5V	I _r	10	μA
Operating temperature range	T _{opr}	-40~+85	°C
Storage temperature range	T _{stg}	-40~+100	°C
Lead Soldering Temperature Range (1.6mm (1/16inch) from body)	T _{sol}	260°C for 5 seconds	

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Luminous Intensity	I _v	I _F =20mA	50	70	120	mcd
Peak Wavelength	λ _P		--	568	--	nm
Dominant Wavelength	λ _D		--	570	--	nm
Spectral Line Half-Width	Δλ		--	30	--	nm
Forward Voltage	V _f		1.7	2.1	2.6	V
Viewing angle	2θ ½		--	36	--	Deg



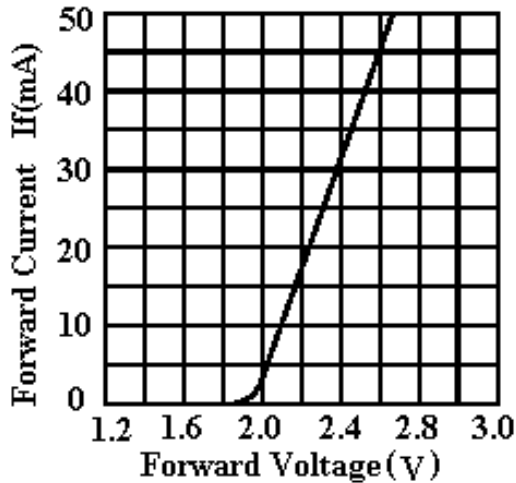
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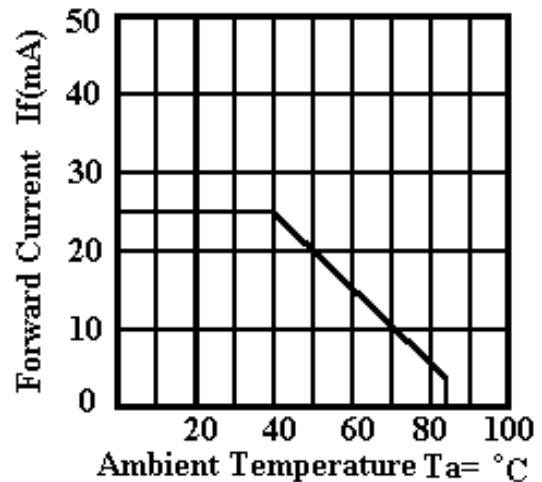
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TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

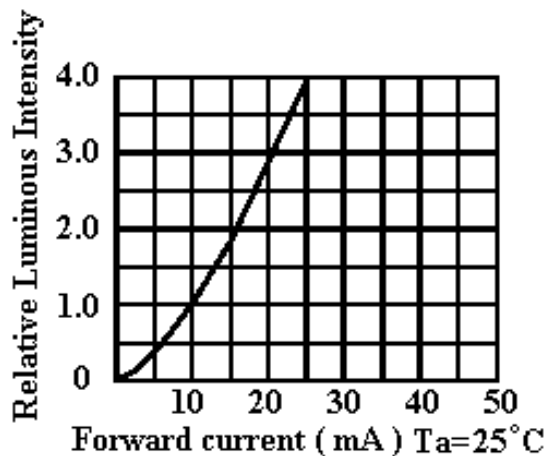
(GaP $\lambda_P=568\text{nm}$)



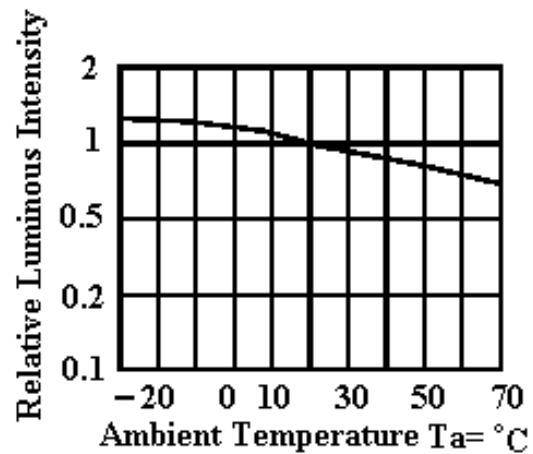
Forward current vs. Forward Voltage



Forward current Derating curve



Luminous Intensity vs. Forward current



Luminous Intensity vs. Ambient Temperature



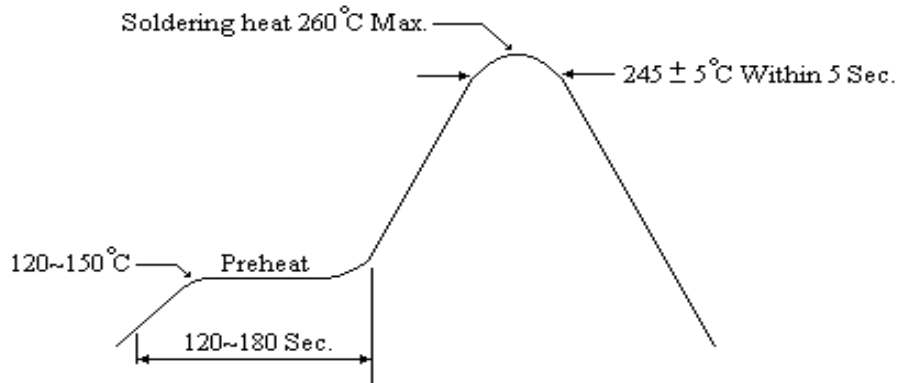
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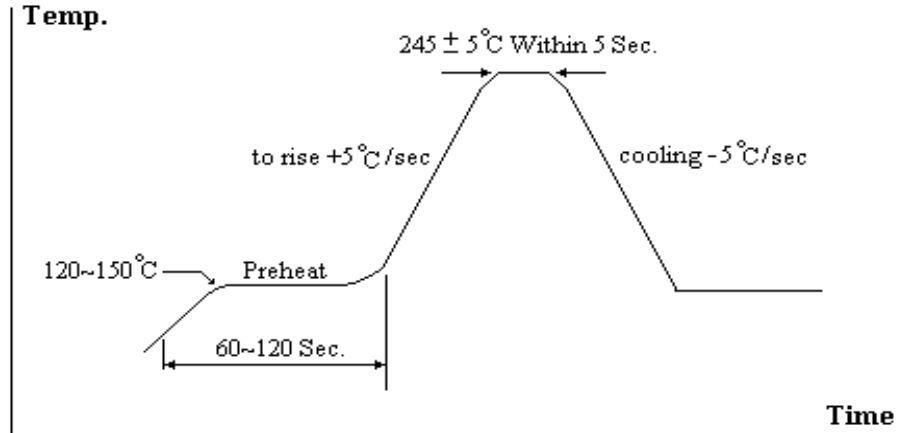
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RECOMMENDED SOLDERING CONDITIONS

Soldering Heat (DIP)



Reflow Temp./Time



Soldering Iron

Temperature at tip of iron: 300°C Max. (25W Max.)

Soldering Time: 3 sec. ± 1 sec. (one time only)

If temperature is higher, time should be shorter



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PRECAUTIONS FOR USE

Storage Time:

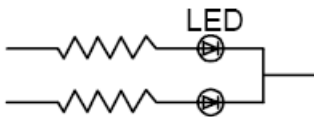
1. The operation of temperatures and RH are: 5°C~30°C, RH60%.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp proof box with desiccating agent. Considering the tape life, we suggest our customers to use our products within a year (from production date).
3. If opened more than one week in an atmosphere 5°C~35°C, RH60%, they should be treated at 60°C±5°C for more than 24hrs.

Drive Method:

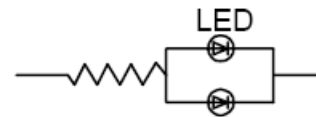
LED is a current operated device, and therefore, require some kind of current limiting incorporated into the driver circuit. This current limiting typically takes the form of a current limiting resistor placed in a series with the LED.

Consider worst case voltage variations that could occur across the current limiting resistor. The forward current should not be allowed to change by more than 40% of its desired value.

Circuit model A



Circuit model B



(A) Recommended circuit.

(B) The difference of brightness between LED could be found due to the VF-IF characteristics of LED.

Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED.

ESD(Electrostatic Discharge):

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrostatic glove is recommended when handling these LEDs. All devices and machinery must be properly grounded.



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RELIABILITY TEST:

NO.	Item	Test Conditions	Test Time/ Cycle	Sample Size	Ac/Re
1	DC Operating Life	Temperature:25°C IF:20mA	1000HRS	20PCS	0/1
2	High Temperature High Humidity	Temperature:85°C 85%RH	1000HRS	20PCS	0/1
3	High Temperature Storage	Temperature:100°C	1000HRS	20PCS	0/1
4	Low Temperature Storage	Temperature: -40°C	1000HRS	20PCS	0/1
5	Temperature Cycling	85°C~25°C~-35°C 15min~5min~15min	15Cycles	20PCS	0/1
6	Thermal Shock	85°C~25°C~-10°C 5min~10sec~5min	15Cycles	20PCS	0/1
7	Solder Heat	Temperature:260°C±5°C	10SEC.	20PCS	0/1