

Part Number: L-7679C1ZGC



## Technical Data



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

### Description

Static electricity and surge damage the LEDs. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs. All devices, equipment and machinery must be electrically grounded.

### Features:

- \*High luminance output.
- \*Design for high current operation.
- \*Uniform color.
- \*Low power consumption.
- \*Low thermal resistance.
- \*Low profile.
- \*Packaged in tubes for use with automatic insertion equipment.
- \*Soldering methods: wave soldering.
- \*RoHS Compliant.

### Benefits:

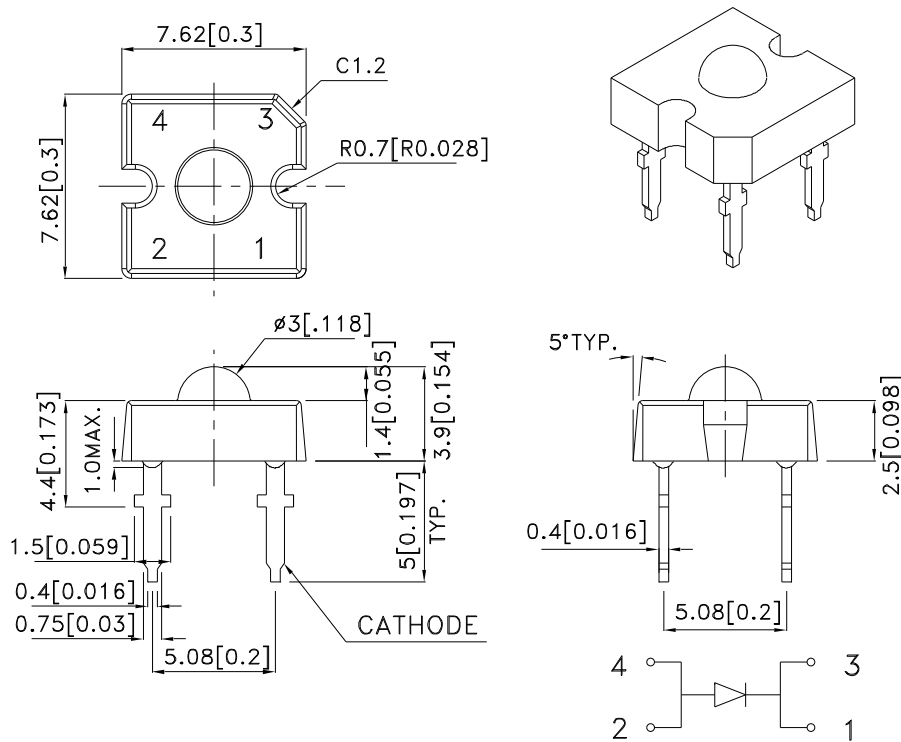
- \*Outstanding Material Efficiency.
- \*Electricity savings.
- \*Maintenance savings.
- \*Reliable and Rugged.

### Typical Applications:

- \*Automotive Exterior Lighting.
- \*Electronic Signs and Signals.
- \*Specialty Lighting.



## Outline Drawings



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

### Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

PARAMETER	ZG	UNITS
DC Forward Current	30	mA
Power dissipation	135	mW
Reverse Voltage	5	V
Operating Temperature	-40 To +85	$^\circ\text{C}$
Storage Temperature	-55 To +85	$^\circ\text{C}$
Lead Solder Temperature[1]	260 $^\circ\text{C}$ For 5 Seconds	

1.1.5mm[0.06inch]below seating plane.  
NO Reflow soldering .

## Selection Guide

Part No.	LED COLOR	Iv(cd)[1] @30mA		$\Phi_v$ (lm)[1] @30mA Typ.	Viewing Angle[2] 2 $\theta_{1/2}$ Typ.
		Min.	Typ.		
L-7679C1ZGC	Green (InGaN)	1.3	2.5	2.7	70°

### Notes:

- 1.Luminous intensity is measured with an integrating sphere after the device has stabilized; Luminous Intensity / luminous flux: +/-15%.
2. $\theta_{1/2}$  is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

## Optical Characteristics at TA=25°C If=30mA R $\theta_j$ -a=200°C/W

DEVICE TYPE	PEAK WAVELENGTH $\lambda_{PEAK}$ (nm) TYP.	DOMINANT[1] WAVELENGTH $\lambda_{DOM}$ (nm) TYP.	SPECTRAL LINE WAVELENGTH $\Delta\lambda_{1/2}$ (nm) TYP.
ZG	515	525	30

### Note:

- 1.The dominant wavelength is derived from the CIE Chromaticity Diagram and represents the perceived color of the device; Wavelength: +/-1nm.

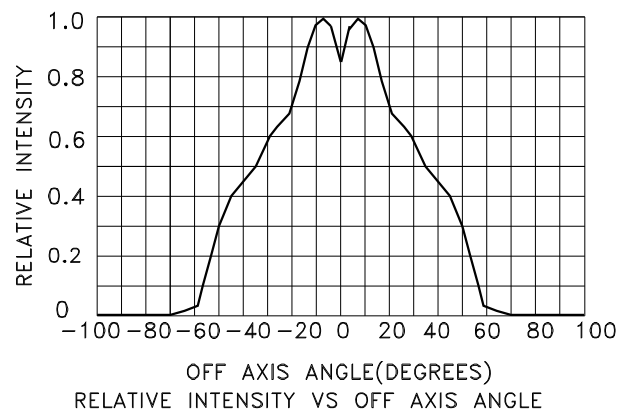
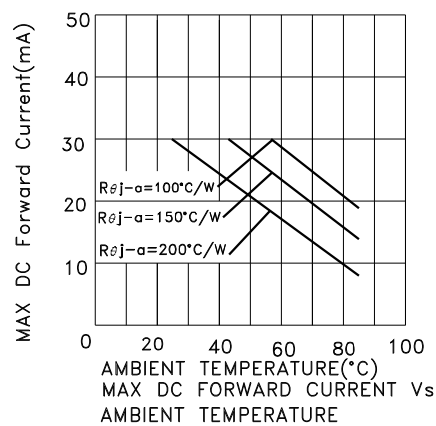
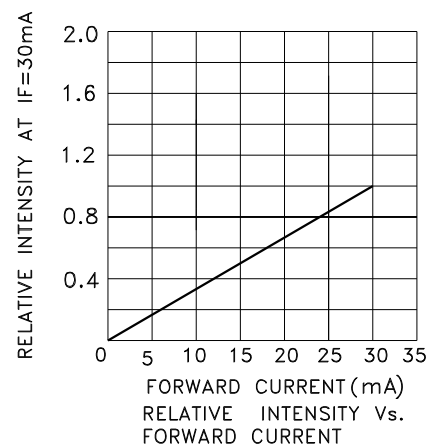
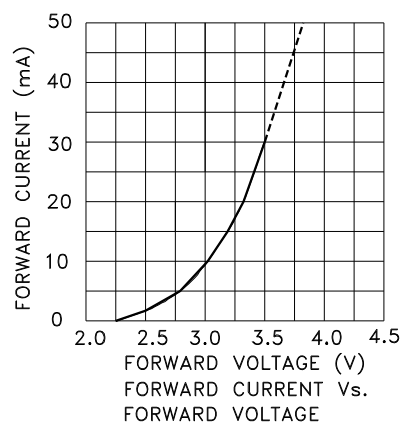
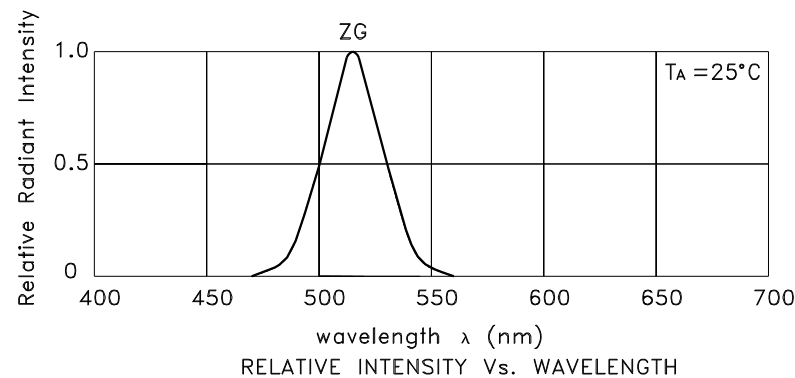
## Electrical Characteristics at TA=25°C

DEVICE TYPE	FORWARD VOLTAGE [1] V <sub>F</sub> (VOLTS) @ I <sub>F</sub> =30mA		REVERSE CURRENT I <sub>R</sub> (uA) @ V <sub>R</sub> =5V	CAPACITANCE C (pF) @ V <sub>F</sub> =0V F=1MHZ	THERMAL RESISTANCE R $\theta_j$ -pin °C/W
	TYP.	MAX.	MAX.	TYP.	TYP.
ZG	3.5	4.5	50	45	150

### Note:

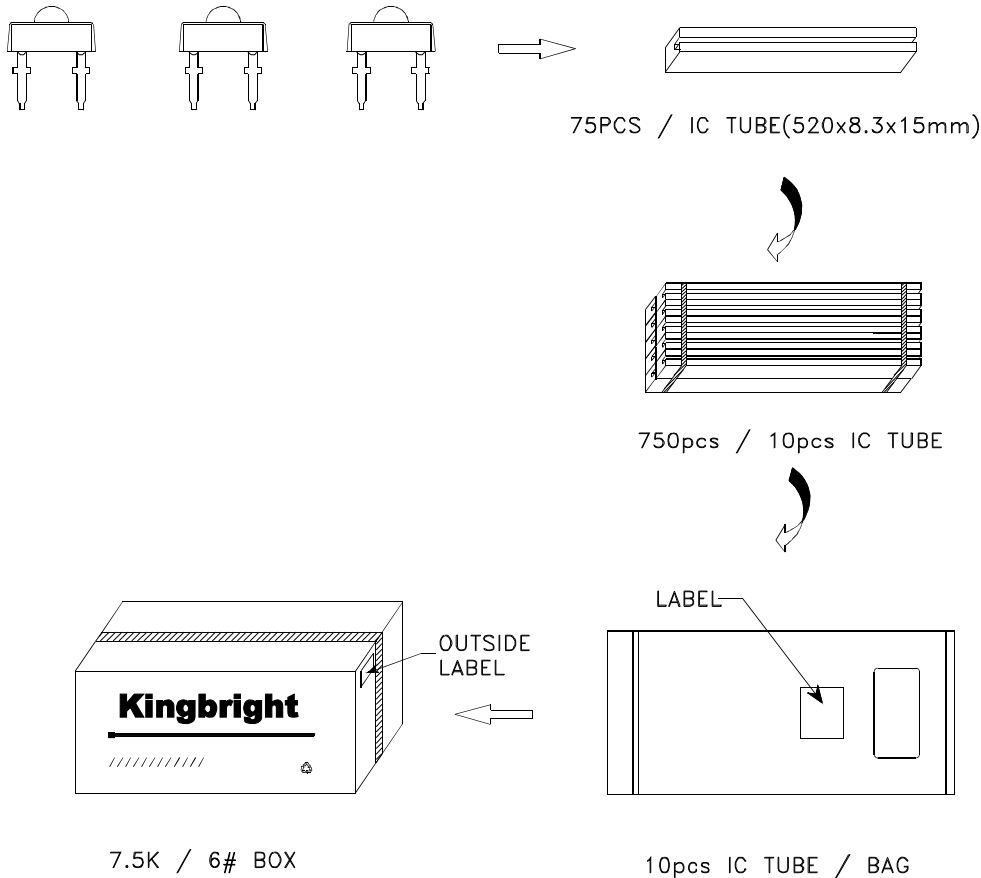
1. Forward Voltage: +/-0.1V.


## Figures



## PACKING & LABEL SPECIFICATIONS

L-7679C1ZGC



<b>Kingbright</b>	
P/NO: L-7679C1xxx	
QTY: 750 pcs	Q.C. <div>Q C XX XX XXXX PASSED</div>
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
XXXXXXXXXX	
RoHS Compliant	

## PRECAUTIONS

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures. (Fig. 1)

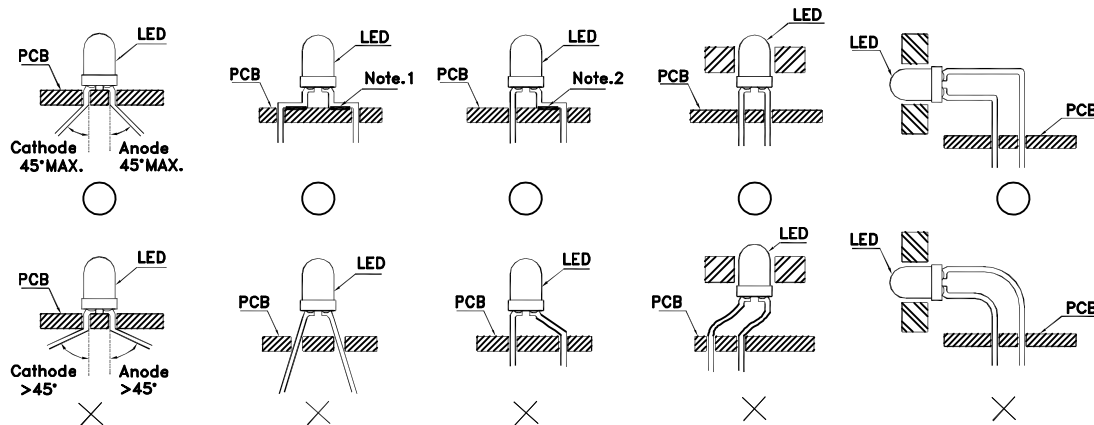


Fig.1

"○" Correct mounting method "×" Incorrect mounting method

2. When soldering wire to the LED, use individual heat-shrink tubing to insulate the exposed leads to prevent accidental contact short-circuit. (Fig.2)

3. Use stand-offs (Fig.3) or spacers (Fig.4) to securely position the LED above the PCB.

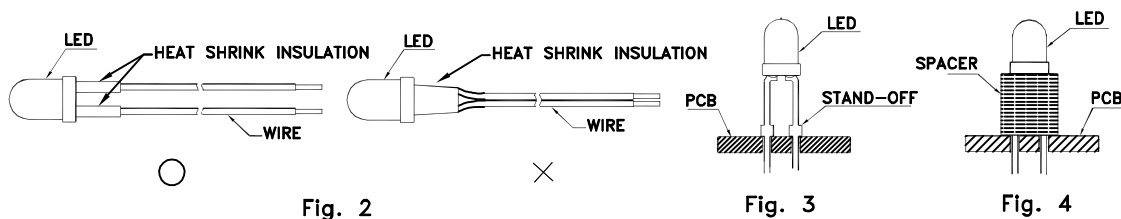


Fig. 2

Fig. 3

Fig. 4

4. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend. (Fig. 5 and 6)
5. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB. (Fig. 7)

6. Do not bend the leads more than twice. (Fig. 8)

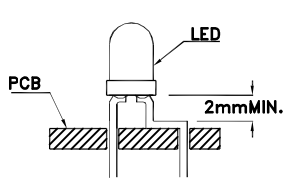


Fig. 5

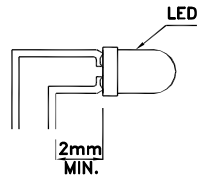


Fig. 6

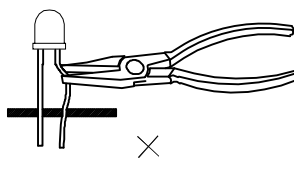


Fig. 7

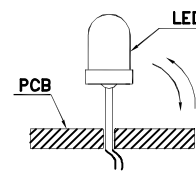
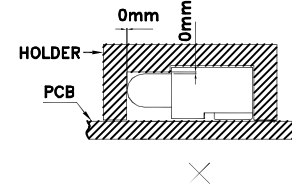
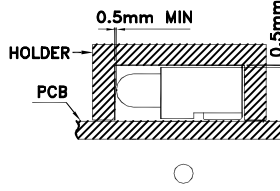
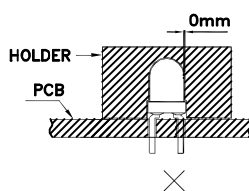
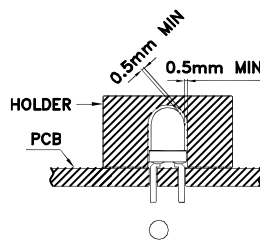


Fig. 8

7. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.

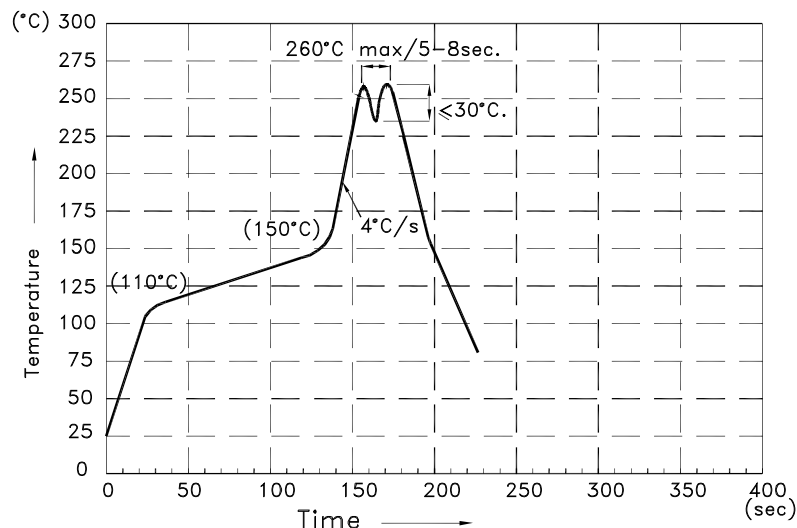


8. The tip of the soldering iron should never touch the lens epoxy.

9. Through-hole LEDs are incompatible with reflow soldering.

10. If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Kingbright for compatibility.

11. Recommended Wave Soldering Profile for Kingbright Thru-Hole Products



## NOTES:

1. Recommend the wave temperature 245°C~260°C. The maximum soldering temperature should be less than 260°C.
2. Do not apply stress on epoxy resins when temperature is over 85°C.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. During wave soldering, the PCB top-surface temperature should be kept below 105°C.
5. No more than once.