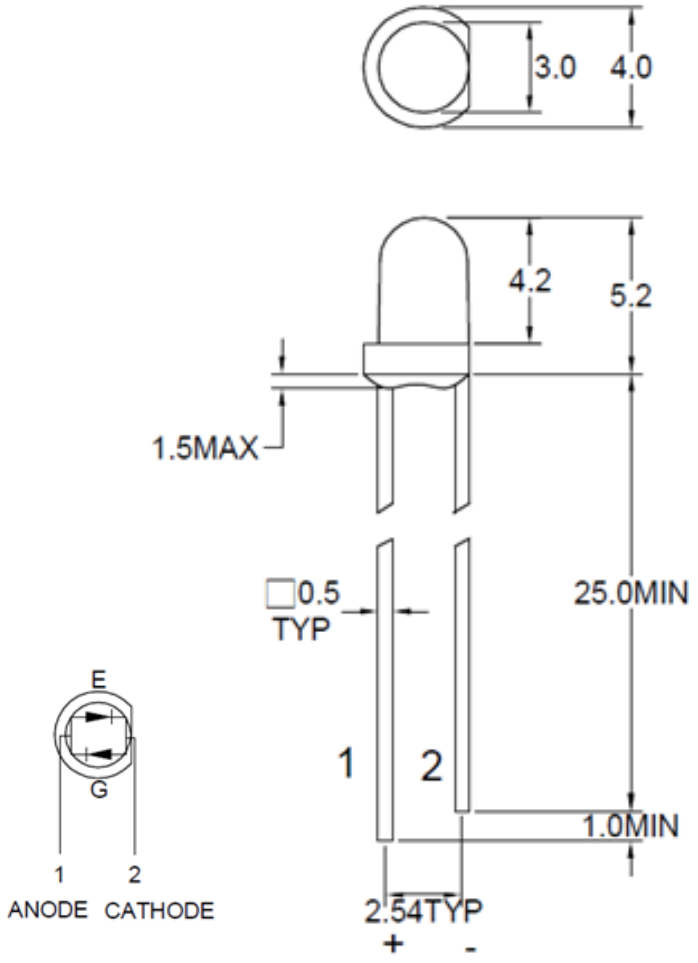


**SPECIFICATIONS** **CLB307R1G1W**
**OUTLINES DIMENSIONS**
**DESCRIPTION**

- Round Type
- 3mm Diameter
- Lens Color: White Diffused
- With Flange
- Solder leads without standoffs

**FEATURES**

- Emitted Color: Red/Green
- Standard Luminous Intensity
- Technology: GaAsP/GaP
- Viewing Angle: 70°



Notes:  
 1. All Dimensions are in millimeters (inches).  
 2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.  
 3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CL307R1G1W	GaP	Red/Green	White Diffused	70°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	100	mW
Pulse Current Forward Current	IFP	120	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-40~+85	°C
Storage Temperature Range	TSTG	-40~+100	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10. Soldering Condition: 260 °C/ 5sec			

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condi- tion	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	IV	IF = 10mA	Red	4.5	8.0	-	mcd
			Green	3.0	5.0	-	
Forward Voltage	VF	IF = 20mA	RED	1.7	-	2.6	V
			Green	1.7	-	2.6	
Reverse Leakage Current	IR	VR = 5V	RED	-	-	10	µA
			Green	-	-	10	
Viewing Angle	2θ1/2	IF = 20mA	RED	-	70	-	deg
			Green	-	70	-	
Dominant Wavelength	λD	IF = 20mA	RED	-	620	-	nm
			Green	-	568	-	

\*Tolerance of viewing angle: -10 / +5 deg.



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## OPTICAL CHARACTERISTIC CURVES (RED)

Fig.1 Forward current vs. Forward Voltage

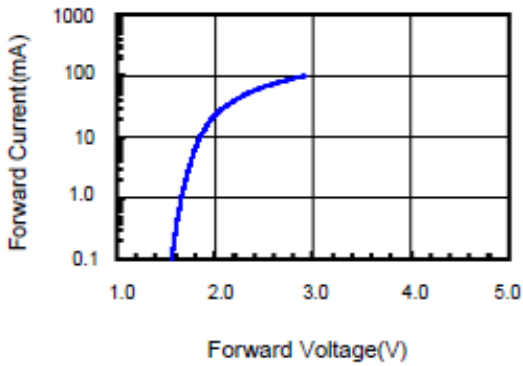


Fig.2 Relative Intensity vs. Forward Current

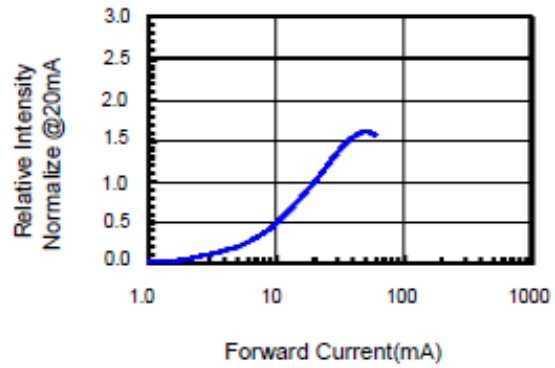


Fig.3 Forward Voltage vs. Temperature

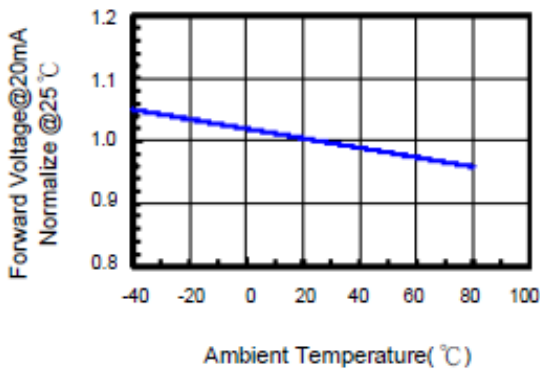


Fig.4 Relative Intensity vs. Temperature

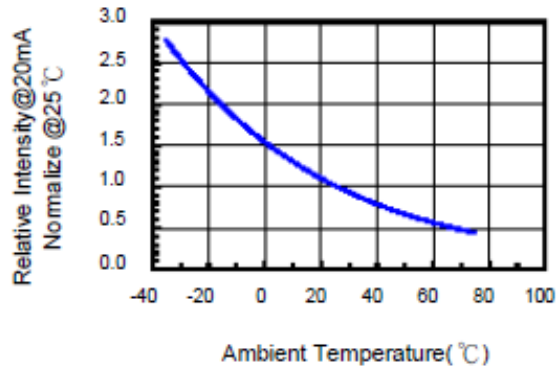
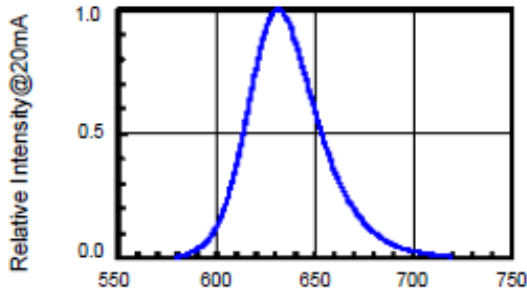
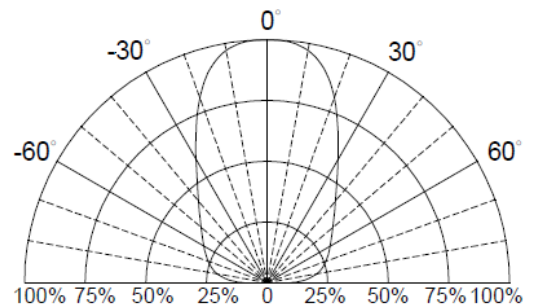


Fig.5 Relative Intensity vs. Wavelength



Directivity Radiation



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## OPTICAL CHARACTERISTIC CURVES (GREEN)

Fig.1 Forward current vs. Forward Voltage

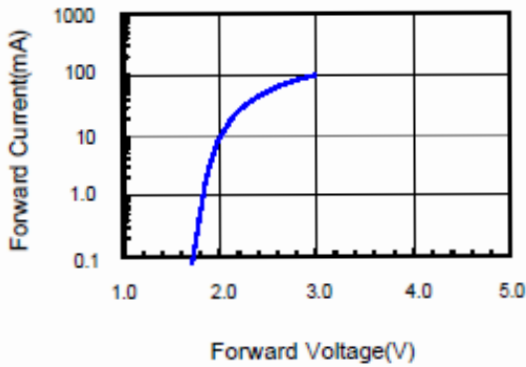


Fig.2 Relative Intensity vs. Forward Current

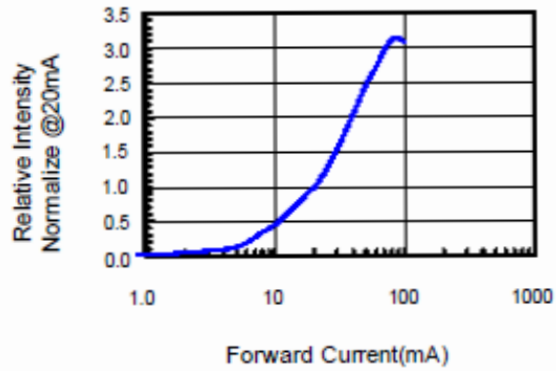


Fig.3 Forward Voltage vs. Temperature

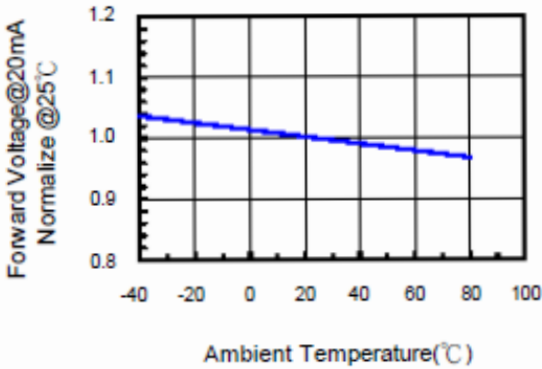


Fig.4 Relative Intensity vs. Temperature

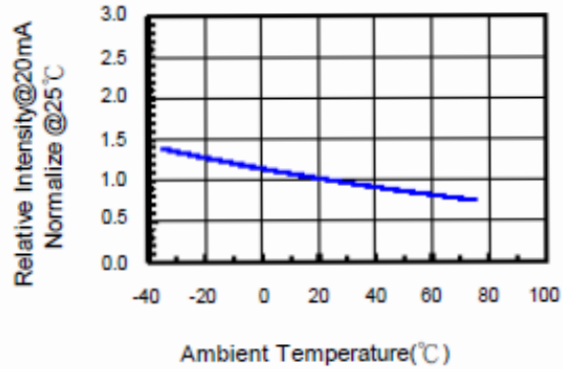
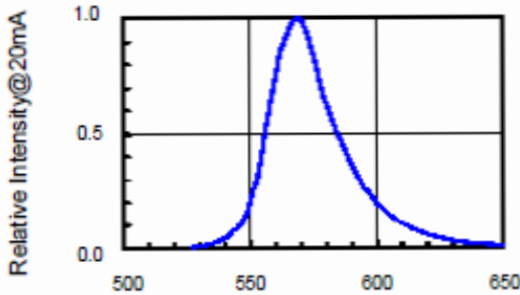
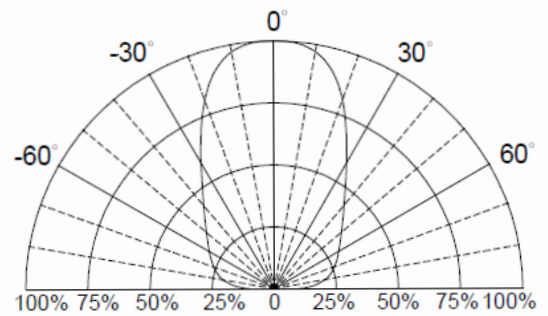


Fig.5 Relative Intensity vs. Wavelength



Directivity Radiation

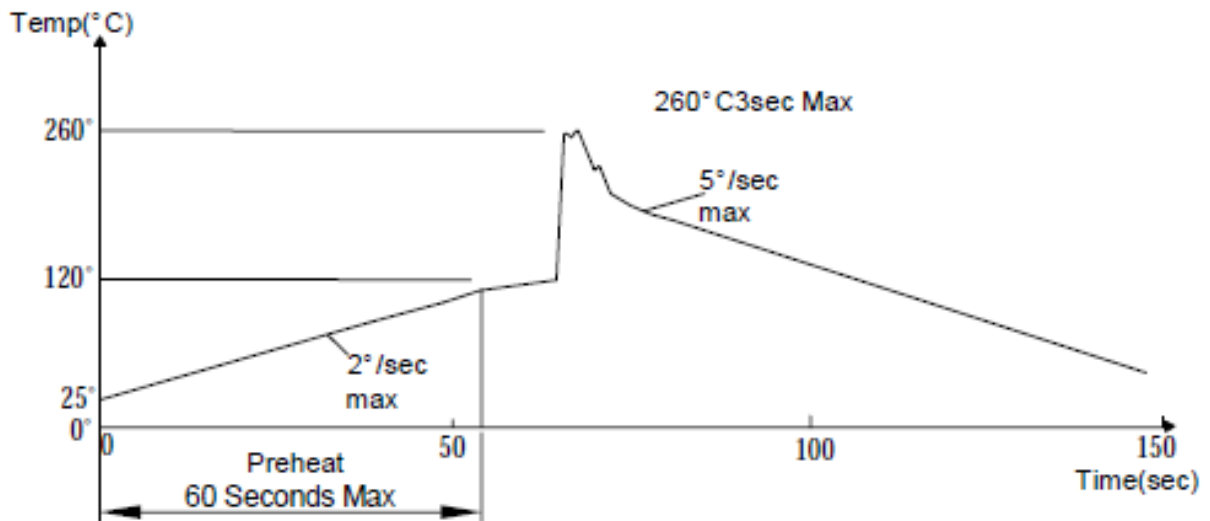


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## SOLDERING CONDITIONS – LAMP TYPE LED

### SOLDERING CONDITION (Pb-Free)

1. Iron:
  - Soldering Iron: 30W Max
  - Temperature 350 °C Max
  - Soldering Time: 3 Seconds Max (one time)
  - Distance: 2mm Min (from solder joint to body)
2. Wave soldering Profile:
  - Dip Soldering
  - Preheat: 120 °C Max
  - Preheat time: 60 seconds Max
  - Ramp-Up
  - 2 °C/sec (Max)
  - Ramp-Down: -5 °C/sec (max)
  - Solder Bath: 260 °C Max
  - Dipping Time: 3 seconds max
  - Distance: 2mm Min (from solder joint to body)



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