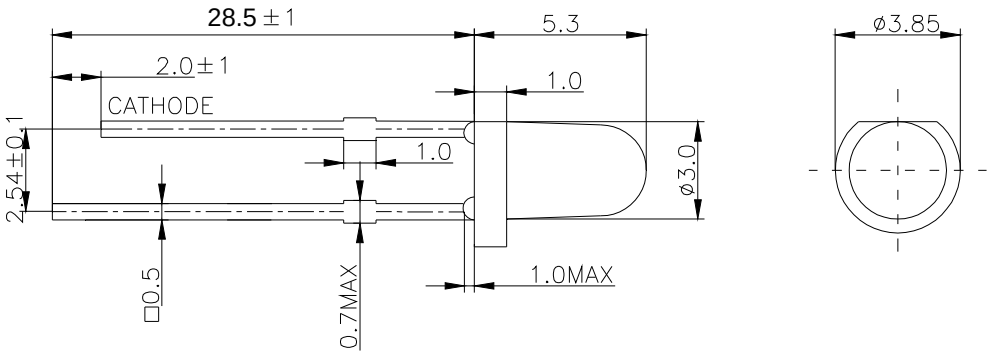
3mm Round LED Lamps

- PART NO:CH-L2B03AGD-TB
- **Emitting Color:Kelly**
- **Lens Color:Green Diffuse**
- **Mertial:GaP**
- **Low power consumption**
- **Excellent product quality and reliability**
- **Lead-free device**

◆Applications

- **Electronic signs and signals**
- **Bright ambient lighting conditions**
- **Backlight**
- **General purpose indicatiors**

◆ Package Dimensions



Notes:
1. All dimensions are in millimeters.
2. Tolerance is ±0.25 unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

◆ Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	PD	80	mW
Forward Current	IF	30	mA
Peak Forward Current*1	IFP	150	mA
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-40°C To +80°C ▲	
Storage Temperature	Tstg	-40°C To +85°C	
Soldering Temperature*2	Tsol	260°C For 5 Seconds Δ	

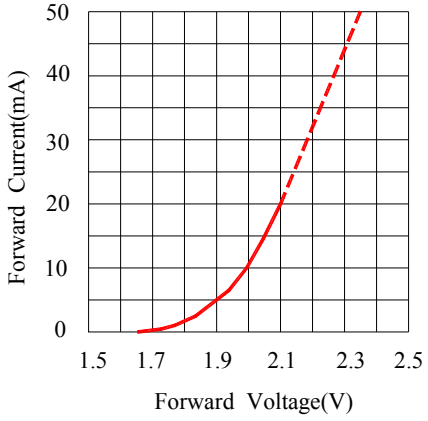
Notes:
*1: Pulse width≤0.1ms, Duty cycle≤1/10
∗2:ΔAt the position of 3mm below package base.
∗3:▲Plese refer to the curve of forward current vs.temperature

◆ Electrical / Optical Characteristics at TA=25°C

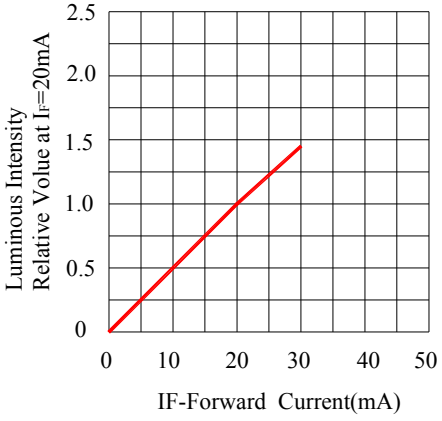
Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Forward Voltage	VF	1.8	2.1	2.6	V	IF=20mA
Reverse Current	IR	—	—	10	μA	VR=5V
Dominant Wavelength	λd	565	570	575	nm	IF=20mA
Peak Wavelength	λP	—	568	—	nm	IF=20mA
Spectral line Half-width	Δλ	—	30	—	nm	IF=20mA
Luminous Intensity	IV	25	40	100	mcd	IF=20mA
Power Angle	2θ1/2	—	35	—	Deg.	IF=20mA

Remarks:
If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or dominant wavelength), the typical accuracy of the sorting process is as follows:
1.Dominant Wavelength:+/-1nm
2.Chromatic Coordinates:+/-0.01
3. Luminous Intensity: +/-15%

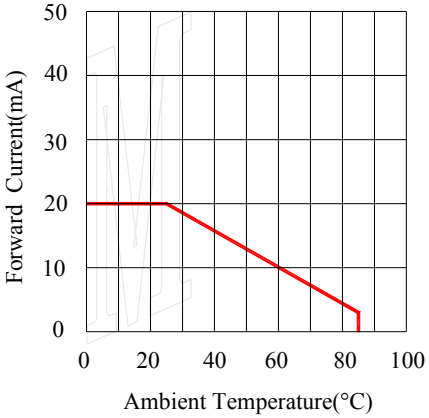
◆ Typical Electrical/Optical Characteristics Curves



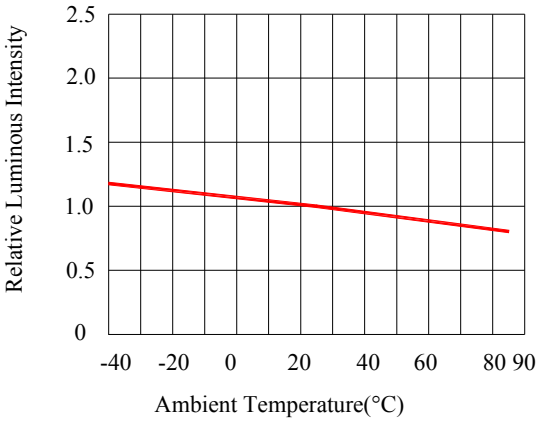
FORWARD CURRENT Vs.
FORWARD VOLTAGE



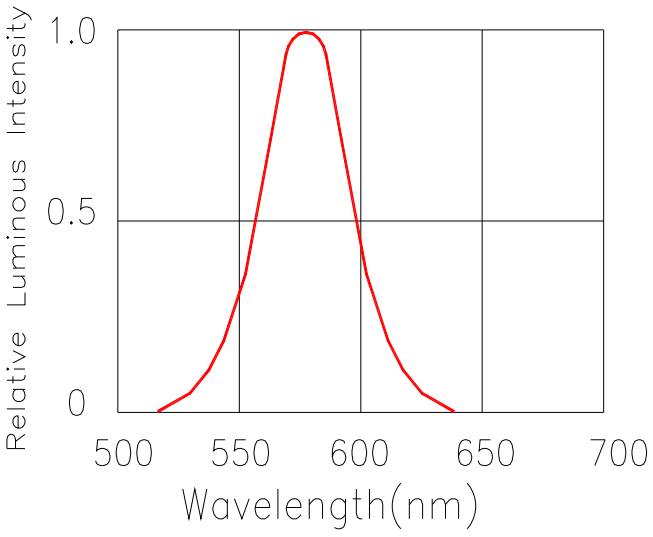
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

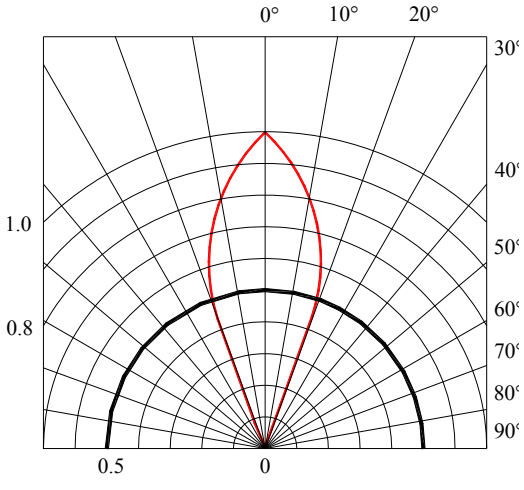


FORWARD CURRENT
DERATING CURVE

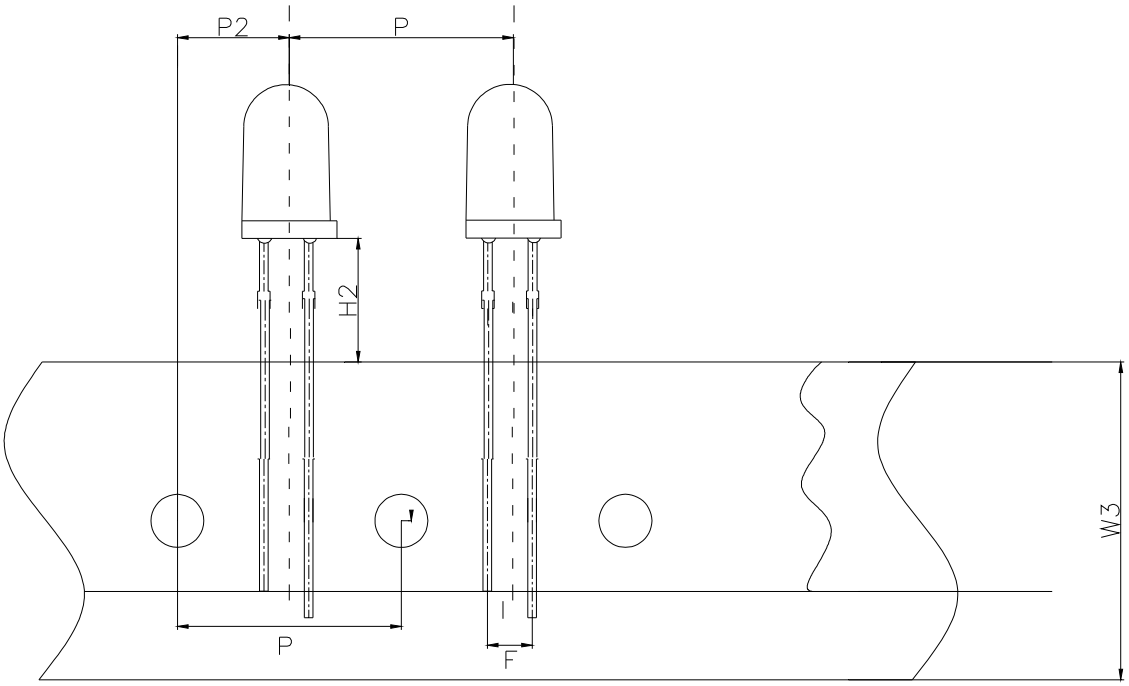


LUMINOUS INTENSITY Vs.
AMBIENT TEMPARATURE





SPATIAL DISTRIBUTION



ITEM	SYMBOL	SPECIFICATION	
		millimeter	
		Size	tolerance
Component Lead PITCH	F	2.54	±0.1
Feed Hole TO Bottom Of	H2	14	±0.5
Taped Width	W3	18	±0.5
Feed Hole Pitch	P	12.7	±0.3
Center Component Location	P2	6.35	±0.5

◆ CAUTIONS:

1.Lead Forming & Assembly

- Lead forming or bending must be done before soldering, at normal temperature.
- During lead forming, the leads should be bent at a point at least 3mm from the base of LED lens.
- Do not use the base of the lead frame as a fulcrum during lead forming.
- Avoid bending the leads at the same point more than once.
- During assembly on PCB, use minimum clinch force possible to avoid excessive mechanical stress.

2.Cleaning:

- Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LEDs if necessary.

3.Storage

- The storage ambient for the LEDs should not exceed 30℃ temperature or 70% relative humidity.
- It is recommended that LEDs out of their original packaging are used within three months. For extended storage out of their original packaging, it is recommended that the LEDs be stored in a sealed container with appropriate desiccant or in desiccators with nitrogen ambient.

4.ESD (Electrostatic Discharge)

Static Electricity or power surge will damage the LED.
Suggestions to prevent of ESD damage.

- All devices, equipment, and machinery must be properly grounded.
- Use a conductive wrist band or anti-electrostatic glove when handling these LEDs.
- Maintain a humidity level of 50% or higher in production areas.
- Use anti-static packaging for transportation and storage.