3mm Round LED Lamps

PART NO.: L-03K2C141C11-01

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

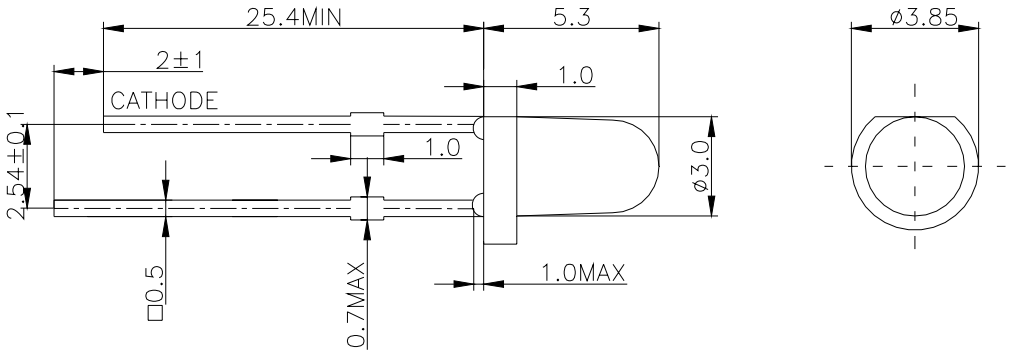
Features

- 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.
5.The design and working Current for Led is not less than2mA.

Device Selection Guide

Part No.	Chip		Lens color
L-03K2C141C11-01	Material	Emitted color	Water Clear
	GaP	Kelly	

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	50	mW
Forward Current	I_F	30	mA
Peak Forward Current*1	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature	Topr	-40°C To +85°C	
Storage Temperature	Tstg	-40°C To +85°C	
Soldering Temperature*2	Tsol	260°C For 5 Seconds	

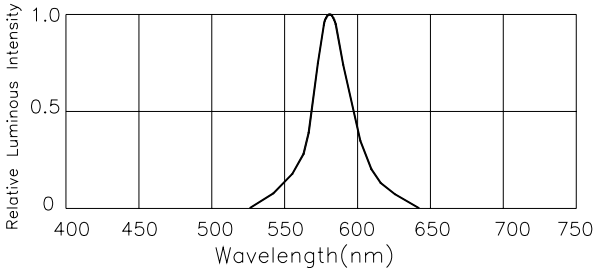
Notes:
*1: Pulse width≤0.1ms, Duty cycle≤1/10
*2：1.6mm below package base.

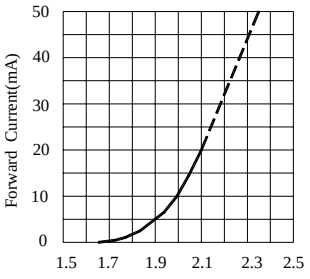
Electrical / Optical Characteristics at T_A=25°C

Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	V_F	1.80	2.10	2.60	V	IF=20mA
Reverse Current	I_R	—	—	10	μA	VR=5V
Dominant Wavelength	λd	565	570	575	nm	IF=20mA
Peak Wavelength	λP	—	565	—	nm	IF=20mA
Spectral line Half-width	Δλ	—	15	—	nm	IF=20mA
Luminous Intensity	I_V	600	1300	2500	mcd	IF=20mA
Power Angle	2θ1/2	—	25	—	Deg.	IF=20mA

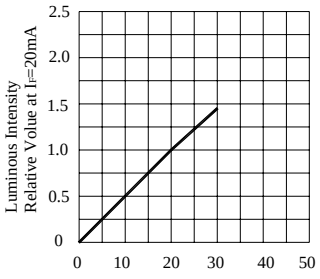
Remarks:
If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or dominant wavelength), the typical accuracy of the sorting process is as follows:
1.Dominant Wavelength:+/-1nm
2.Chromatic Coordinates:+/-0.01
3. Luminous Intensity: +/-15%
4. Forward Voltage: +/-0.1V

Typical Electrical/Optical Characteristics Curves
(Ta=25℃ Unless Otherwise Noted)

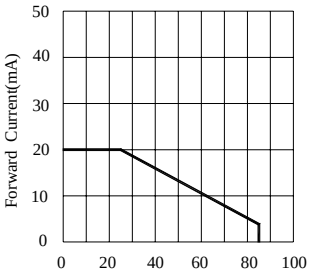




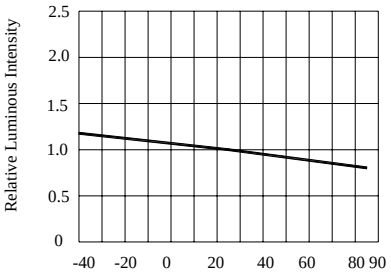
FORWARD CURRENT Vs.
FORWARD VOLTAGE



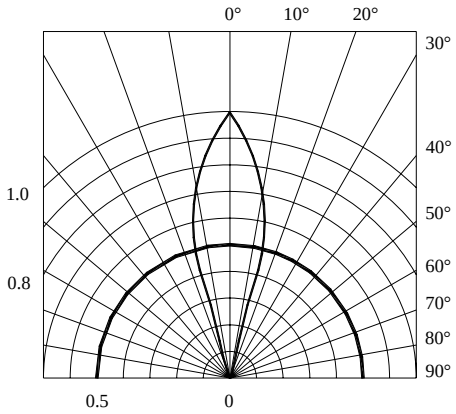
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPARATURE



SPATIAL DISTRIBUTION

◆ 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.