

3mm Round LED Lamps

PART NO.: L-03R2B141D11-01



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

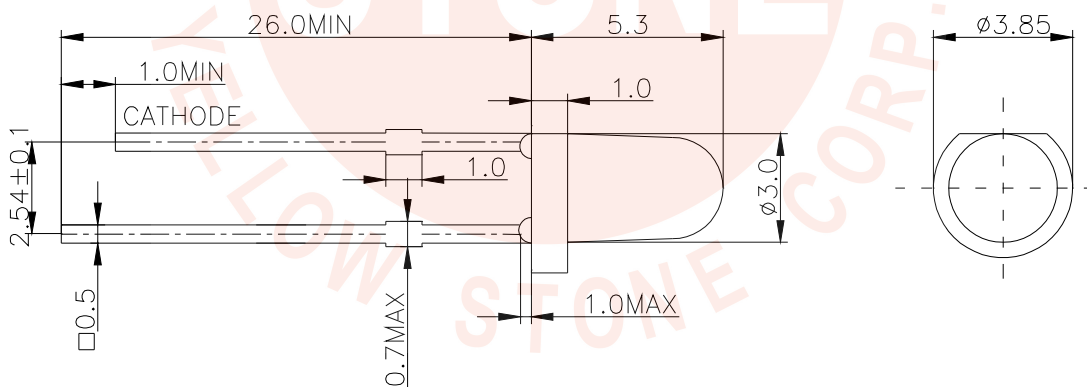
Features

- Low power consumption`
- Excellent product quality and reliability
- Lead-free device.

Applications

- Electronic signs and signals
- Bright ambient lighting conditions
- Backlings.
- General purpose indicators

◆ **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.

◆ **Device Selection Guide**

Part No.	Chip		Lens color
L-03R2B141D11-01	Material	Emitted color	Red Diffuse
	AlGaInP	Red	

◆ **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	T _{opr}	-40°C To +85°C	
Storage Temperature	T _{stg}	-40°C To +85°C	
Soldering Temperature*2	T _{sol}	260°C For 5 Seconds	

Notes:

*1: Pulse width≤0.1ms, Duty cycles≤1/10

*2: 1.6mm below package base.

◆ **Electrical / Optical Characteristics at TA=25°C**

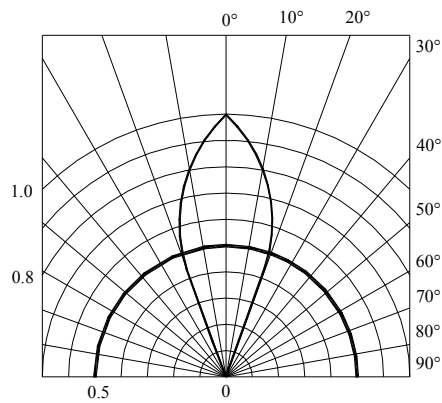
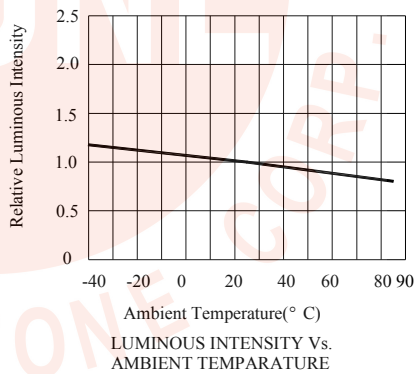
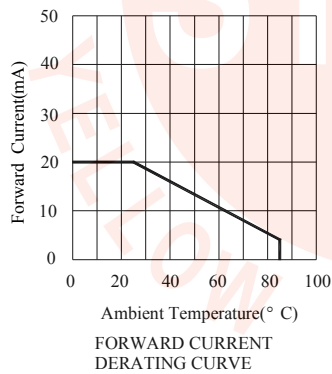
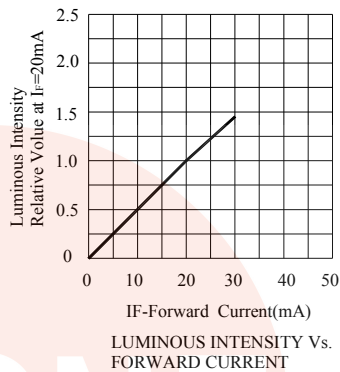
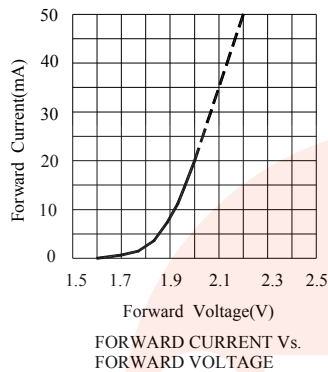
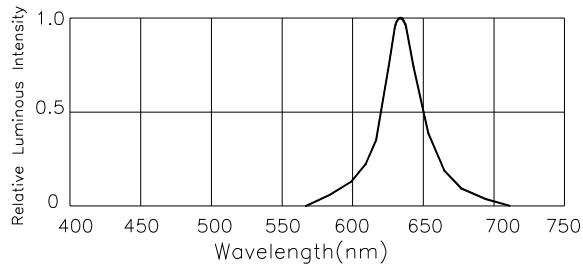
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	V _F	1.80	2.0	2.60	V	I _F =20mA
Reverse Current	I _R	—	—	10	μA	V _R =5V
Dominant Wavelength	λ _d	620	625	630	nm	I _F =20mA
Peak Wavelength	λ _P	—	635	—	nm	I _F =20mA
Spectral line Half-width	Δλ	—	20	—	nm	I _F =20mA
Luminous Intensity	I _v	250	300	600	mcd	I _F =20mA
Power Angle	2θ _{1/2}	—	40	—	Deg.	I _F =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
5. The design and working Current for Led is not less than 2mA.

◆ **Typical Electrical/Optical Characteristics Curves**
 (Ta=25°C Unless Otherwise Noted)



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°C 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.

◆ Revision Records:

Rev. No.	Change description	Date	Prepared by	Checked by	Approved by
A/0	New-made specification	2012/03/15	袁苑		