LG-245BB4C-619-C1.2

DATA SHEET

SPEC. NO. : SZ2018060701

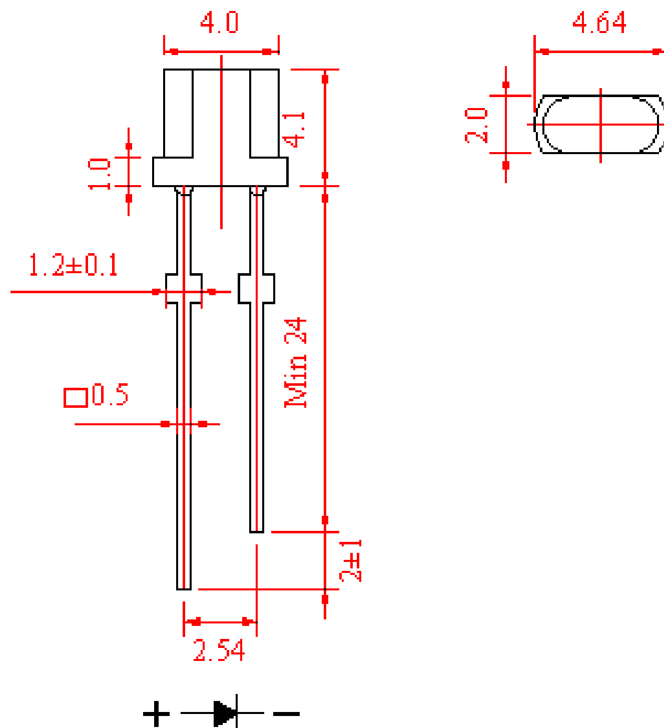
DATE : 2018/06/07

Approved By: Checked By: Prepared By:

Features:

- Pb free product—RoHS compliant
- Low power consumption,
- High efficiency
- Low current requirement
- Long life – solid state reliability

Package Dimension:



Part NO.	Lens Color	Source Color
LG-245BB4C-619-C1.2	Water Clear	Blue

Notes:

1. All dimensions are in millimeters.
2. Tolerance is ±0.20mm unless otherwise noted.
3. Protruded resin under flange is 1.0mm max.
4. Lead spacing is measured where the leads emerge from the package.
5. Caution in ESD:
   Static Electricity and surge damages the LED. lt is recommend to use a wrist band or anti-electrostatic glove when handling the LED.All devices, equipment and machinery must be properly grounded.

Absolute Maximum Ratings at Ta=25℃

Parameter	MAX.	Unit
Power Dissipation	120	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	30	mA
Derating Linear From 50℃	0.4	mA/℃
Reverse Voltage	5	V
Operating Temperature Range	-40℃ to +85℃	
Storage Temperature Range	-40℃ to +85℃	
Lead Soldering Temperature [2mm From Body]	260℃ for 3 Seconds	
Lead Soldering Temperature [5mm From Body]	260℃ for 5 Seconds	

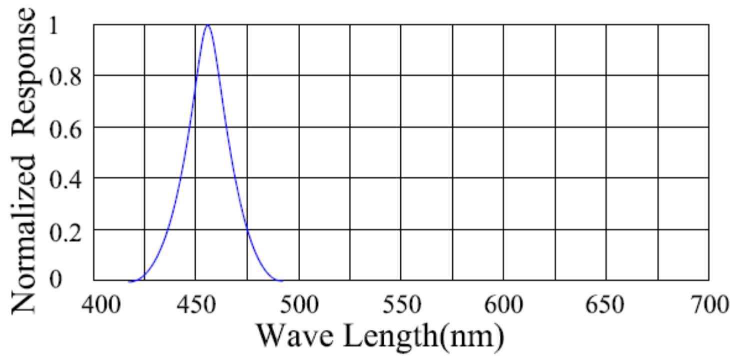
Electrical Optical Characteristics at Ta=25℃

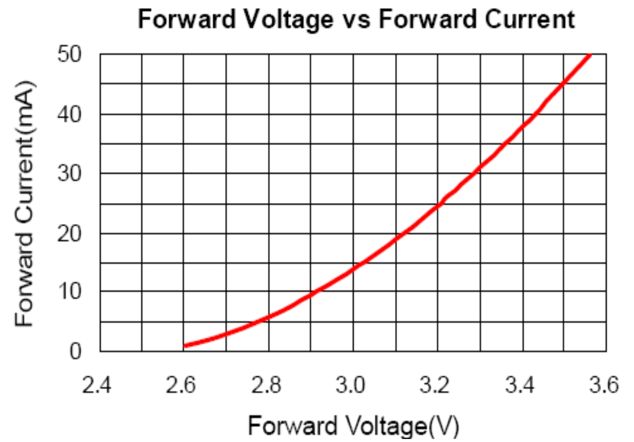
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	---	800	---	mcd	I_F=20mA (Note 1)
Viewing Angle	$2\theta_{1/2}$	---	75	---	Deg	(Note 2)
Peak Emission Wavelength	λp	---	465	---	nm	I_F=20mA
Dominant Wavelength	λd	---	468	---	nm	I_F=20mA (Note 3)
Spectral Line Half-Width	Δλ	---	20	---	nm	I_F=20mA
Forward Voltage	V_F	---	3.2	3.6	V	I_F=20mA
Reverse Current	I_R	---	---	10	μA	V_R=5V

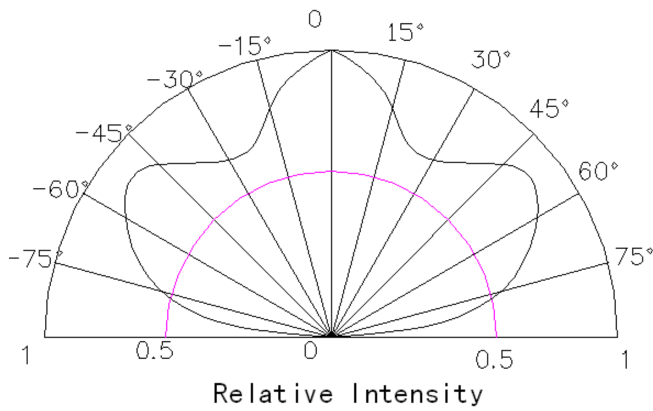
Note:

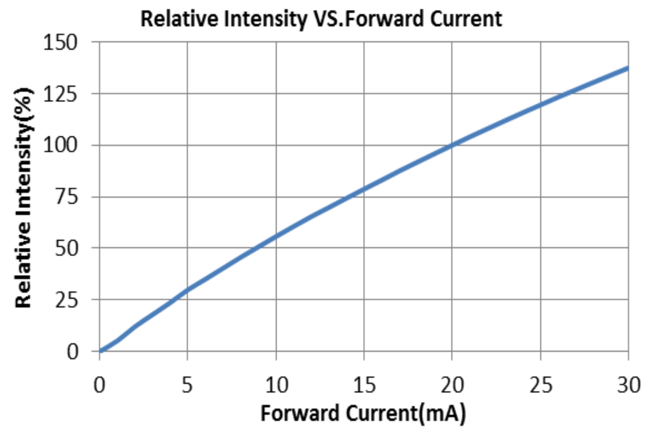
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength, λd is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. The Iv guarantee should be added ±15% tolerance.

Typical Electrical / Optical Characteristics Curves
(25℃ Ambient Temperature Unless Otherwise Noted)









Bin Code List For Reference (Test at 20mA):

Bin Code	V_F/V	Iv/mcd	λd/nm
B1S21	2.8-3.6	540-700	465-467
B1S22	2.8-3.6	700-900	465-467
B1S23	2.8-3.6	900-1100	465-467
B2S21	2.8-3.6	540-700	467-469
B2S22	2.8-3.6	700-900	467-469
B2S23	2.8-3.6	900-1100	467-469
B3S21	2.8-3.6	540-700	469-471
B3S22	2.8-3.6	700-900	469-471
B3S23	2.8-3.6	900-1100	469-471

Notes:

*Measurement Uncertainty of Forward Voltage: ±0.1V

*Measurement Uncertainty of Luminous Intensity: ±15%

*Measurement Uncertainty of Dominant Wavelength: ±1.0nm

LED MOUNTING METHOD

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)

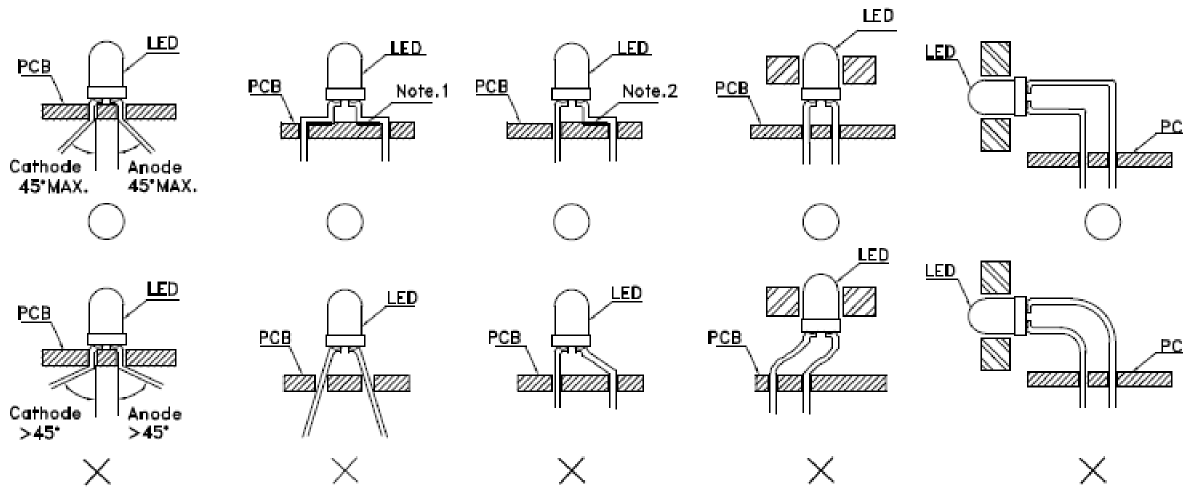


Figure 1

“○” Correct mounting method, “×” Incorrect mounting method , Note 1-2:Do not route PCB Trace in the contact area between the leadframe and the PCB to prevent short-circuit.

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)

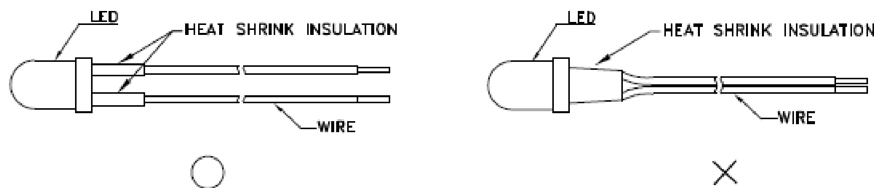
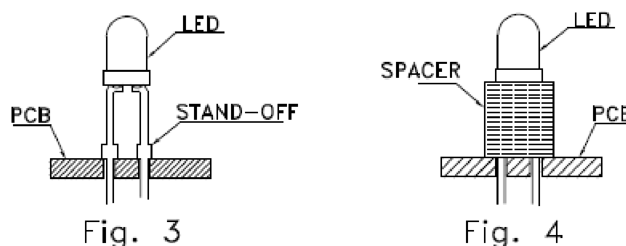


Figure 2

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



LEAD FORMING PROCEDURES

1. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend (Fig.5 and Fig.6).

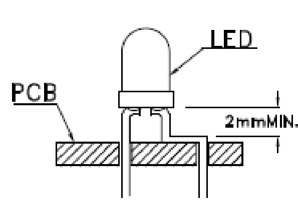


Fig. 5

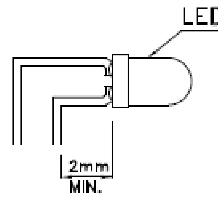


Fig. 6

2. Lead forming or bending must be performed before soldering, never during or after soldering.
3. Do not stress the LED lens during lead-forming in order to fractures in the lens epoxy and damage the internal structures.
4. 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).
5. Do not bend the leads more than twice(Fig.8)

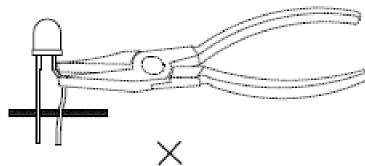


Fig. 7

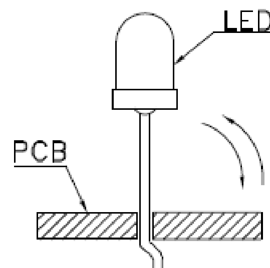


Fig. 8

6. After soldering or other high-temperature assembly, allow the LED to cool down to 50℃ before applying force (Fig.9).In general, avoid placing excess force on the LED to avoid damage. For any questions please consult with LIGHT representative for proper handling procedures.

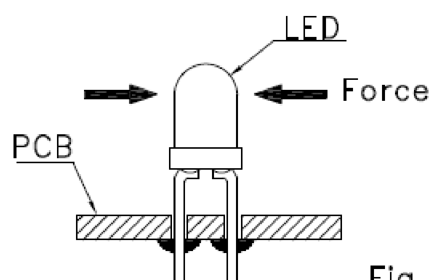


Fig. 9

PACKAGE

RoHS

深圳莱特光电有限公司
Light Electronics CO.,LTD
TYPE NO.
QUANTITY.
BIN.
DATE CODE.
REMARKS

Bag

200
310
195
P1

1 2 3

425
410
325
P2

1 2

Bag minimum volume (pcs / Bag)	Bag volume (pcs / Bag)	Inner carton volume (Bag / carton)	Outer carton volume (Box / Carton)
250	1000	30	4