BRIGHT LED ELECTRONICS CORP.

SURFACE MOUNT AXIAL TYPE LED LAMP SPECIFICATION

●COMMODITY：AXIAL TYPE LED

●DEVICE NUMBER：BL-XD0361 VERSION：1.2

●ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25℃)

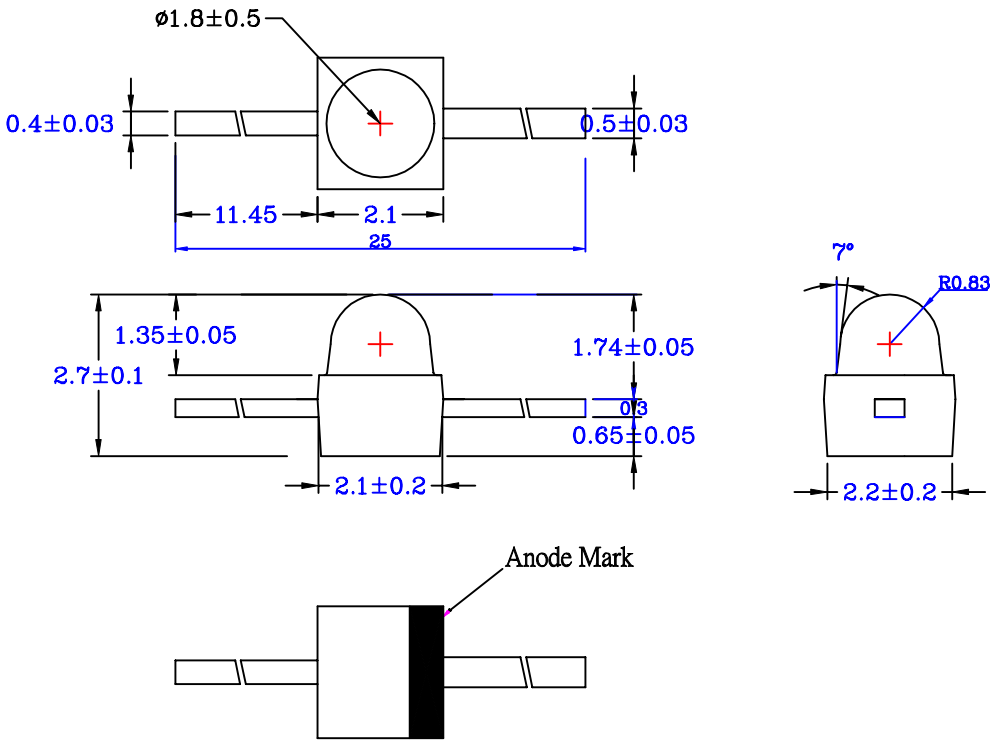
Chip			Lens Appearance	Absolute Maximum Rating				Electro-optical Data (At 20mA)			Viewing Angle 2θ1/2 (deg)
Emitted Color	Peak Wave Length λp(nm)	Dominant Wave Length λd(nm)		Δλ (nm)	Pd (mW)	If (mA)	Peak If(mA)	Vf(V) Typ	Vf(V) Max	Iv Typ. (mcd)	
Super Red	660	643	Water Clear	20	60	30	150	1.85	2.0	75.0	35

Remark：Viewing angle is the Off-axis angle at which the luminous intensity is half the axial luminous intensity.

●ABSOLUTE MAXIMUN RATINGS (Ta=25℃)

Reverse Voltage 5V
Reverse Current (-Vr=5V) ..... ≦100μA
Operating Temperature Range ..... -25℃ ～ 100℃
Storage Temperature Range ..... -30℃ ～ 100℃

●PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters (inches).
2.Tolerance is ± 0.25mm (0.01”) unless otherwise specified.
3.Specifications are subject to change without notice.

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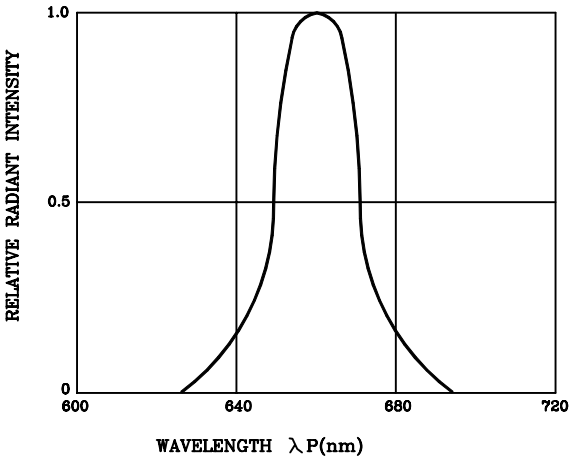
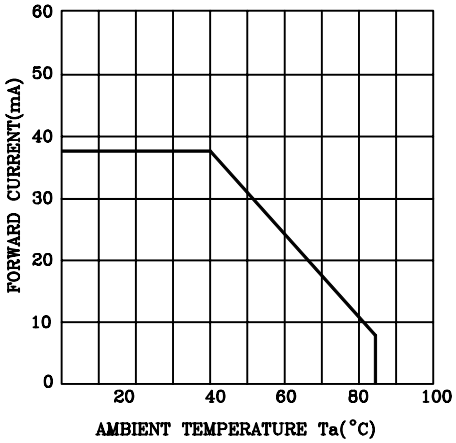
- COMMODITY: AXIAL TYPE LED LAMP
- DEVICE NUMBER: BL-XD0361 PAGE: 3
- ELECTRICAL AND OPTICAL CHARACTERISTICS(Ta=25°C) REVISION: 1.0

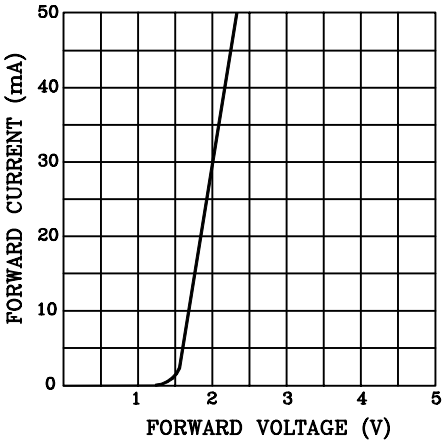
SPECTRAL DISTRIBUTION



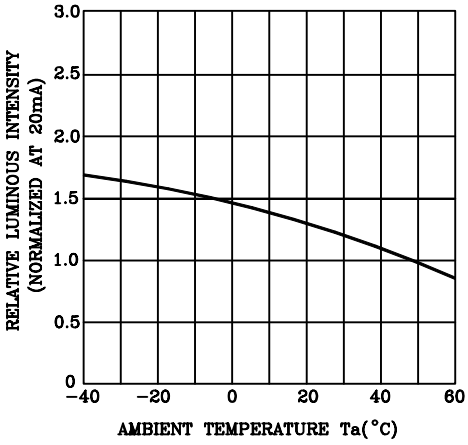
FORWARD CURRENT DERATING CURVE



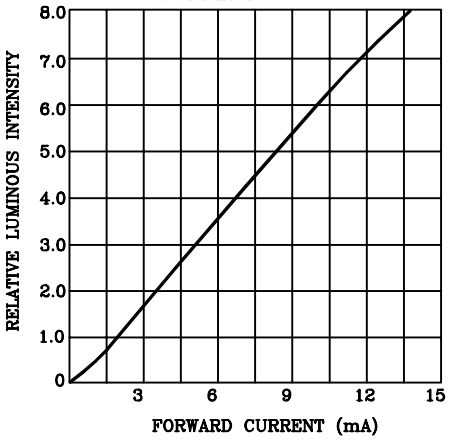
FORWARD CURRENT VS. FORWARD VOLTAGE



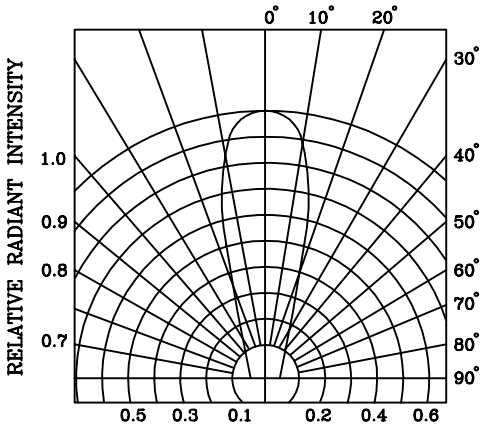
RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



RADIATION DIAGRAM



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SURFACE MOUNT CHIP LED LAMP SPECIFICATION

RELIABILITY TEST

Classification	Test Item	Reference Standard	Test Conditions	Result
Endurance Test	Operation Life	MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021 :B-1	Connect with a power If=20mA Ta=Under room temperature Test time=1,000hrs	0/20
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	Ta=+65℃±5℃ RH=90%-95% Test time=1,000hrs	0/20
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High Ta=+85℃±5℃ Test time=1,000hrs	0/20
	Low Temperature Storage	JIS-C-7021 :B-12	Low Ta=-35℃±5℃ Test time=1,000hrs	0/20
Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021 :A-4	-35℃ ～+25℃ ～+85℃ ～+25℃ 60min 20min 60min 20min Test Time=5cycle	0/20
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	+85℃±5℃ ～-35℃±5℃ 20min 20min Test Time=10cycle	0/20
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	Preheating： 140℃-160℃,within 2 minutes. Operation heating： 235 ℃ (Max.),within 10 seconds.(Max.)	0/20

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
Forward voltage	V_F (V)	If=20mA	Over Ux1.2
Reverse current	Ir(uA)	Vr=5V	Over Ux2
Luminous intensity	Iv (mcd)	If=20mA	Below SX0.5

Note: 1.U means the upper limit of specified characteristics. S means initial value.

2.Measurment shall be taken between 2 hours and after the test pieces have been returned to normal ambient conditions after completion of each test.

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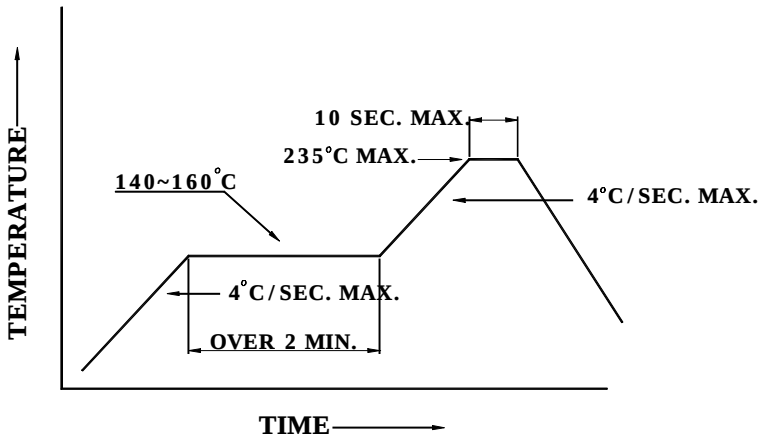
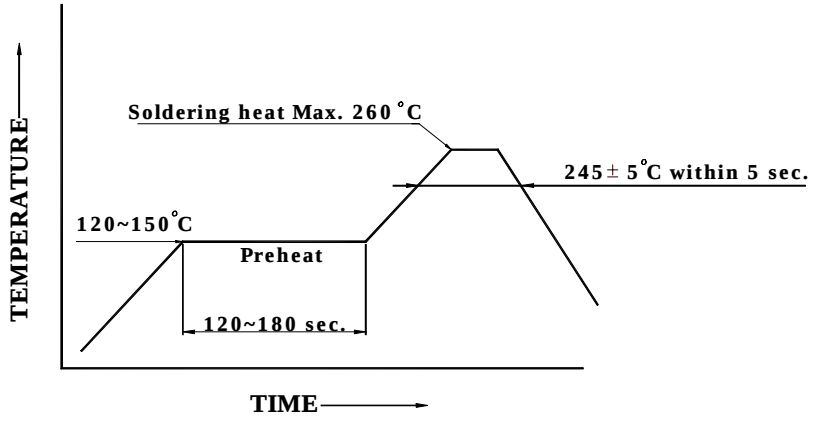
1. SOLDERING :

- **Manual Of Soldering**
  The temperature of the iron tip should not be higher than 300℃(572℉)and Soldering within 3 seconds per solder-land is to be observed.
- **Reflow Soldering**
  Preheating : 140℃~160℃±5℃,within 2 minutes.
  Operation heating : 235℃(MAX.) within 10 seconds.(Max)
  Gradual Cooling (Avoid quenching).



- **DIP soldering (Wave Soldering)**
  Preheating : 120℃~150℃,within 120~180 sec.
  Operation heating : 245℃±5℃ within 5 sec.260℃ (Max)
  Gradual Cooling (Avoid quenching).



2. Handling :

Care must be taken not to cause to the epoxy resin portion of BRIGHT LEDs while it is exposed to high temperature.
Care must be taken not rub the epoxy resin portion of BRIGHT LEDs with hard or sharp article such as the sand blast and the metal hook