

Approval Sheet

Customer: _____

Item: Φ5LED LAMP

Part No.: WLIR109/2.8J51-06

Customer P/N: _____



PREPARED BY	CHECKED BY	APPROVED BY

SIGNATURE	CHECKED BY	APPROVED BY

供方签章：
SUOOLIER:

客户签章：
CUSTOMER:

日期：
DATE:

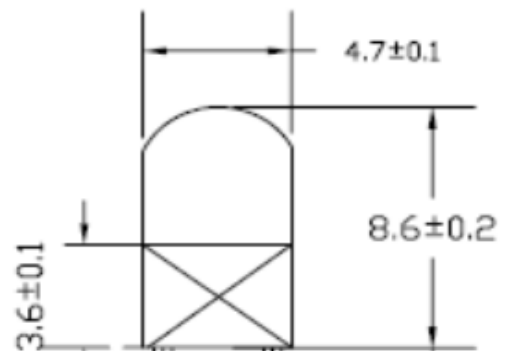
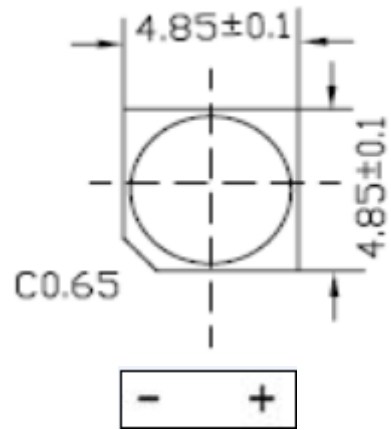
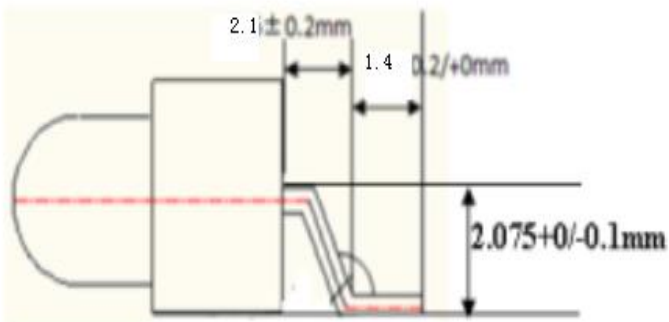
日期：
DATE:

备注：承认签章后请回复一份（或复印件）给我公司，其余由贵司留作存盘。如果在签章的承诺书（或复印件）回复我司之前，下了有关此零件的订单且又无特殊说明，那么我司就确定贵司已完全承认。

Please return one specification or one copy of it with your chop and signature of approval and retain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation, it will be assumed that full approval have been given.

TYPE NO: **WLIR109/2.8J51-06**

PACKAGE DIMENSIONS



Note:

1. All Dimensions are in millimeters
2. Tolerance is $\pm 0.25 \text{ mm}$ ($0.010''$) Unless otherwise specified.
3. Protruded resin under flange is 1.5 mm ($0.59''$) max.
4. This product to static electricity sensitive, Usage the hour please watch for the electricity aegis.

Device Selection Guide

Emitting Color	Lens Type
GREEN	GREEN

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Max	Unit
Power Dissipation	P _D	80	mW
Continuous Forward Current	I _F	60	mA
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _{opr}	-40°C to+80°C	
Storage Temperature Range	T _{stg}	-40°C to+80°C	
Lead Soldering Temperature 【3mm From Body】	T _{sol}	260°C For 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

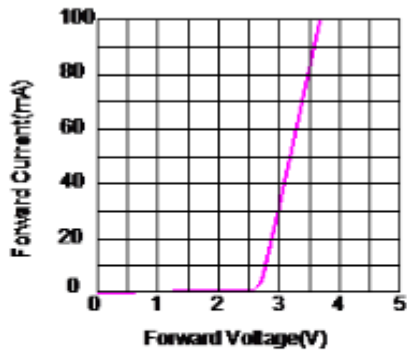
Parameter	Symbol	Min	Typ	Max	Unit	Condi
Forward Voltage	V _F	--	1.4	1.6	V	I _F =20mA
Spectral Line Half Width	$\Delta \lambda$	---	25	---	nm	I _F =20mA
Peak Emitting Wavelength	λ_p	920	940	---960	nm	I _F =20mA
Reverse Current	I _R	/	/	10	μA	V _R =5V
Axial Radiant Intensity	I _E		25	35	mW/sr	I _F =20mA
Viewing Angle	2θ _{1/2}	/	25	/	deg	I _F =20mA

Note.

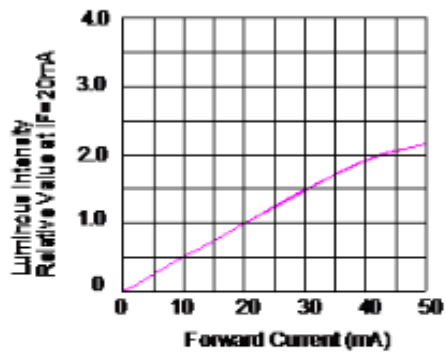
- 2θ_{1/2} is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
- View angle tolerance is ± 10

Typical Electro-Optical Characteristics Curves

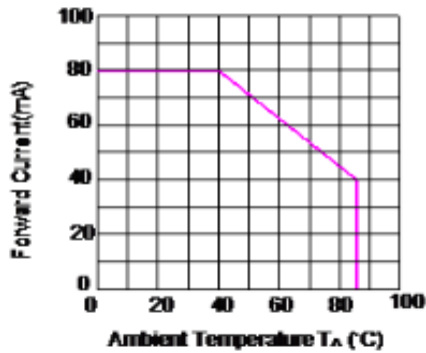
Relative Luminous Intensity vs Forward Current, $T_{Ambient}=25^{\circ}C$



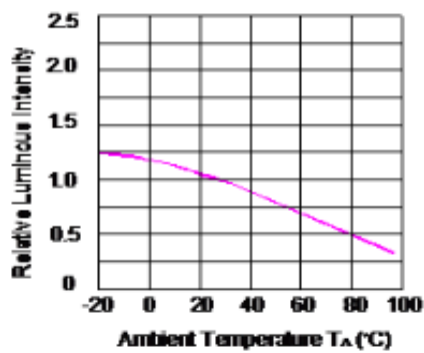
Relative Luminous Intensity vs Forward Current, $T_{Ambient}=25^{\circ}C$



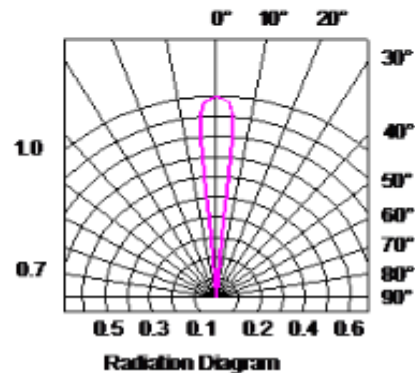
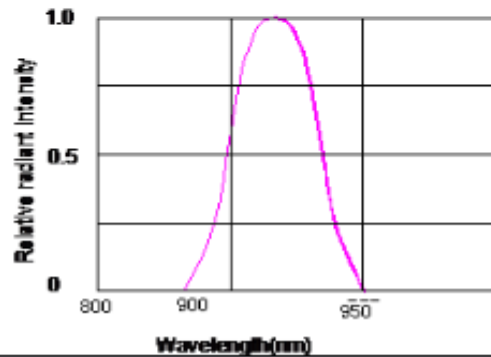
Forward Current Derating Curve, Derating based on $T_{jMAX}=85^{\circ}C$



Luminous Intensity VS Ambient Temperature



Relative Spectral Distribution, $I_f=20mA$, $T_{Ambient}=25^{\circ}C$



Reliability test items and conditions :

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Judgment
1	Solder Heat	TEMP: 260±5℃	5 SEC	76 PCS	OK
2	Temperature Cycle	H: +85℃ 30min ┆ 5min L: -55℃ 30min	50 CYCLES	76 PCS	OK
3	Thermal Shock	H: +100℃ 5min ┆ 10set L: -10℃ 5min	50 CYCLES	76 PCS	OK
4	High Temperature Storage	TEMP: 100℃	1000 HRS	76 PCS	OK
5	Low Temperature Storage	TEMP: -55℃	1000 HRS	76 PCS	OK
6	DC Operating Life	TEMP: 25℃	1000 HRS	76 PCS	OK
7	High Temperature / High Humidity	85℃ / 85%RH	1000 HRS	76 PCS	OK

Criteria for Judging the Damage:

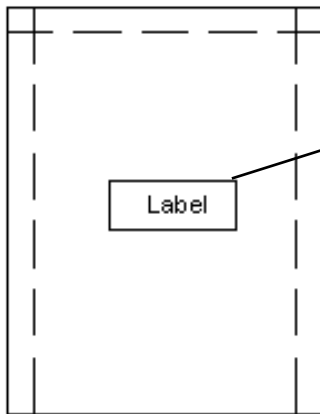
Measuring Item	Symbol	Measuring Conditions	Judgement criteria for failure
Forward Voltage	VF	IF=20mA	OVER V* 120% OR 80%
Reverse Current	IR	VR=5V	OVER H*2
Luminous Intensity	IV	IF=20mA	L*0.5
Dominant wavelength	λD	nm	OVER±1.5nm(W)


Note:

1. V and H means the upper limit of specified characteristics. L and W means initial value
2. Measurement shall be taken between 2 hours and after the test pieces have been returned to normal Ambient conditions after completion of each test.

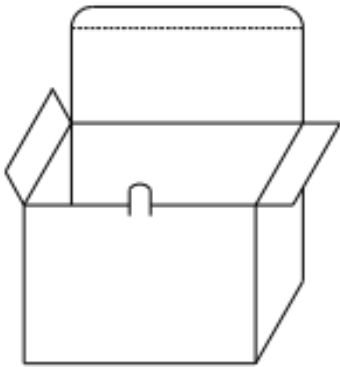
Packing Specification

◆Anti-electrostatic bag



 Shenzheng Wenling Electronics Co.,Ltd	
Part NO.	_____
Intensity	_____ Voltage _____
Wavelength	_____ Lot NO. _____
QTY	_____ QC _____ XXXXX

◆Inner Carton



◆Label From Specification

Part NO: Production Number

Intensity: Luminous Intensity

Voltage: Forward Voltage

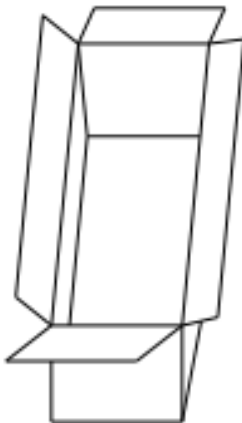
Wavelength: Dominant Wavelength

Lot NO: Lot Number

QTY: Packing Quantity

QC:BIN Code

◆Outside Carton



◆Packing Quantity

1.500 PCS/1 Bag,5 Bags/1 Inner Carton

2.10 Inner Cartons/1 Outside Carton

Welding conditions

◆Soldering iron: Soldering iron (up to 30W) tip temperature not exceeding 300 degrees Celsius, the welding time is not more than 3 seconds, welding position at least 3 mm from the gel.

◆Dip soldering: The maximum temperature of dip soldering is 260 degrees Celsius, dip soldering time of less than 5 seconds, dip soldering position at least 3 mm from the gel.

Pin method of forming

- ◆Bent the lead must be away from the gel of 3 mm. (Picture 1)
- ◆Lead must be done by fixture or professionals. (Picture 2)
- ◆Lead must be completed before welding
- ◆Lead must guarantee pins and spacing consistent with the circuit board

LED assembling method

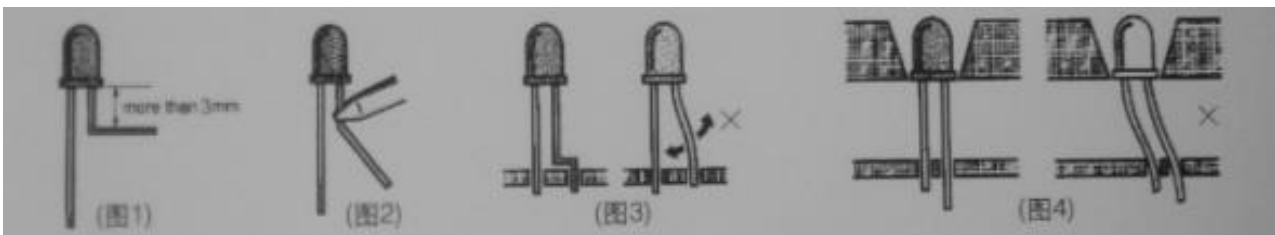
◆Note the arrangement of various types of component leading-out wires, so as to avoid reversed polarity. The components can't be too close to the heated elements. The working condition should not exceed the prescribed limit.

◆Make sure not mount LED when the lead feet become deformed. (Picture 4)

◆When get down to install in the hole, calculate the size and tolerance of the surface hole and holes pitch of the circuit board, so as the lead not to receive excessive pressure. (Picture 1)

◆We propose the method of mold-guiding position fixing when install the LED

◆Before the welding temperature return to normal, LED must be avoided from any shock or external force.



(Picture 1)

(Picture 2)

(Picture 3)

(Picture4)

Wash

Be particularly careful when use chemicals wash the colloid, as some chemicals would damage the colloid surface and arouse color fading, such as TCE and Acetone. Can use ethanol to wipe and soak. Time should never over 1min under the normal temperature.

Working and storage temperature LED diode Topr-40°C~80°C、Tstg-25°C~100°C