



吉安市木林森电子科技有限公司
JI AN M. L. S ELECTRONICS CO., LTD

PRODUCT SPECIFICATION

ITEM NO.: F3AR2UD21-9A

NAME: _____

CUSTOMER: _____

DEPARTMENT: ENGINEERING DEPARTMENT

EDITION: A/0



COMPANY ADDRESS: JUNSHAN ROAD , HIGH TECHNOLOGY DEVELOPMENT
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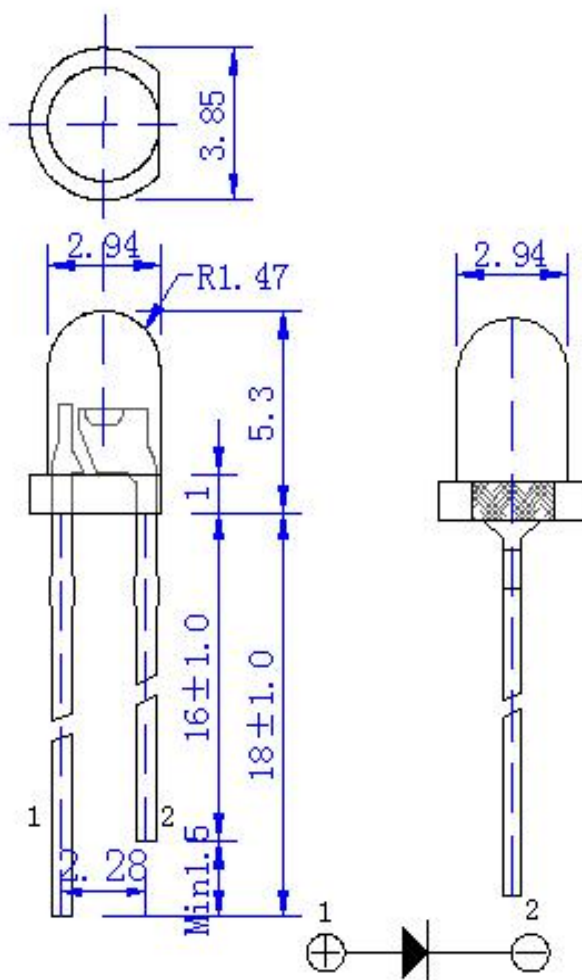
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Package Dimensions:



| Lens | Material | Emitting Color |
|--------------|----------|----------------|
| Red Diffused | InGaAlP | Red |

Notes:

1. Unit: mm

2. Tolerance does not indicate if it is not over plus or minus 0.25 mm or 0.010 in.

3. Surplus colloid not up to 1.0mm

4. Without prior notice for specification changes .



Maximum Parameter at TA=25 °C

| parameter | absolute rating | unit |
|--------------------------|---------------------|------|
| Power dissipation | 100 | mW |
| pulse current | 50 | mA |
| forward dircet current | 20 | mA |
| backward voltage | 5 | V |
| work temperature | -25°C to+85°C | |
| preservation temperature | -25°C to+85°C | |
| welding temperature | 260°C for 3 seconds | |

Electrooptical Characteristic at TA=25 °C

| parameter | symbol | min | standard | max | unit | test addition |
|--------------------|----------------|-----|----------|-----|------|---------------|
| luminous intensity | I _v | 150 | | 900 | mcd | IF=20mA |
| Lighting Angle | 2 θ 1/2 | | 20 | | deg | IF=20mA |
| peak wavelength | λ _d | 618 | | 630 | nm | IF=20mA |
| forward voltage | V _F | 1.8 | 2 | 2.4 | V | IF=20mA |
| Reserve current | I _R | 0 | | 3 | μ A | VR=5V |

Remark:

1、 This brightness is according to the human eye luminous intensity of the induction curve of the simulation which is in line with CIE (International Optical Committee Organization)

2、 light emitting angle of measurement test data comes from half luminance

3.Brightness error is not over plus or minus 15%



Operation instruction

1. Use

This LED can be used for ordinary electronic equipment, such as office equipment, communications equipment, house decoration, if the LED used in some circumstances requiring high reliability, such as air transport, traffic control and medical equipment, it must be used according to the provided reference sales instruction

2. Storage

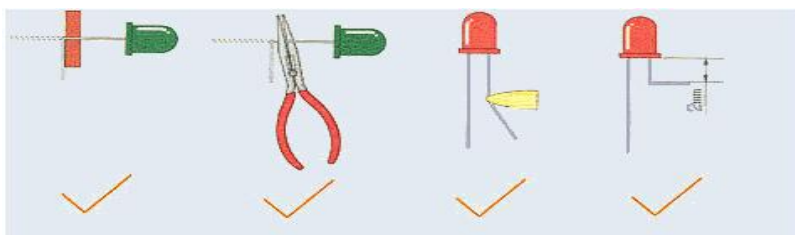
LED's maximum storage temperature not exceed 40 degrees C ,and relative humidity not exceed 70%. We suggested that the LED date in the original container was not more than three months .If you need to lengthen the storage time, please put it into the oven, and add desiccant, or filled in nitrogen.

3. Clean

When use the chemicals to clean colloid, we must be especially careful, because some chemicals on the colloid surface will cause damage and discoloration, such as trichlorethylene, acetone. We can ethanol wipe, dip at the normal temperature and not more than three minutes.

4. Pin assembly

- (1) It must be 2 mm from the colloid when bend bracket.
- (2) Stent placement must be done by the fixture or done by professionals.
- (3) Stent placement must be completed prior to welding..
- (4) Stenting need to ensure that the pin spacing is the same as circuit board.
- (5) Welding must be carried out at normal temperature and normal LED soldered to the PCB should be avoided to exert mechanical pressure on the LED pin .



5. Welding

When welding, it is necessary to carry out in colloidal bottom of the 2mm and you should try to avoid dipping LED colloid. When finished the welding, you should avoid the pin plus external or shaking LED colloid.

Recommended Welding Conditions

| solder with the soldering bit | | wave-soldering | |
|-------------------------------|-----------------|----------------|------------|
| Temperature | 260℃ Max | Pre-heat | 100℃ Max |
| Welding time | 5 sec. Max | Pre-heat time | 60sec. Max |
| | (one time only) | Solder wave | 260℃ Max |
| | | Soldering time | 10sec. Max |

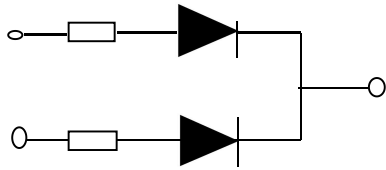
Too high welding temperature and long soldering can cause the LED to the deformation and invalidation

6. Drive mode

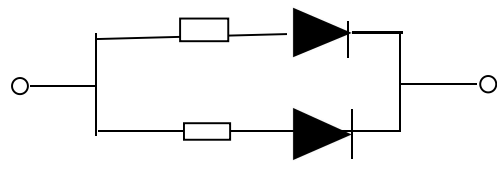
LED current drive mode

If the LED is more satellites in parallel, it is recommended to use line A and plus a current limiting resistor in every single LED in order to ensure consistency of LED brightness.

Circuit model A



Circuit model B



7. Electrostatic protection

Static and current sharp rise will harm the LED . when use the InGaN series product , pls use antistatic devices, such as shelter belts and gloves

Note: use the human body discharge mode HBM <1000V; machine model <100V.