

YETDA INDUSTRY LTD.

## 3mm Flat Amber LED Lamps Q709GOA4G

\* 3mm Flat Amber Dice.

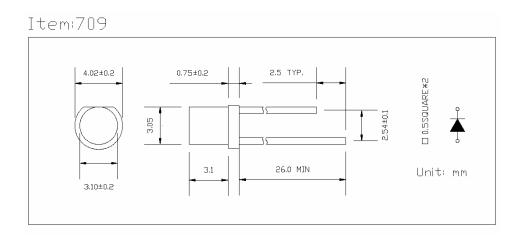
\* Encapsulated With Water Clear Package with 2 leads.

## Absolute Maximum Ratings : ( Ta=25°C )

| Parameter   | Symbol | Maximum Rating | Unit |  |  |  |  |  |
|---|--------|----------------|------|--|--|--|--|--|
| Power Dissipation   | Pd     | 100            | mw   |  |  |  |  |  |
| Reverse Voltage   | VR     | 5              | V    |  |  |  |  |  |
| Average Forward Current   | LAF    | 30             | mA   |  |  |  |  |  |
| Peak Forward Current (Duty=0.1,10KHZ)                                       | IPF    | 200            | mA   |  |  |  |  |  |
| Opertating Temperature Range  | Topr   | -20°C to +80   | °C   |  |  |  |  |  |
| Storage Temperature Range   | Tstg   | -40°C to +100  | °C   |  |  |  |  |  |
| Lead Soldering Temperature {1.6mm(0.063inch) From Body} 260°C For 3 Seconds |        |                |      |  |  |  |  |  |

### Electro-Optical Characteristics ( $Ta = 25^{\circ}C$ )

| Parameter          | Test Condition | Symbol         | Min. | Тур. | Max. | Unit |
|--------------------|----------------|----------------|------|------|------|------|
| Forward Voltage    | IF = 20mA      | VF             | 2.0  |      | 2.4  | V    |
| Reverse Current    | $V_R = 5V$     | IR             |      |      | 10   | uA   |
| Luminous Intensity | IF = 20mA      | Iv             | 150  | 250  |      | mcd  |
| Wavelength         | IF = 20mA      | λd             | 602  |      | 611  |      |
| Viewing Angle      | $I_F = 20 m A$ | 2 <b>0</b> 1/2 |      | 90   |      | deg  |

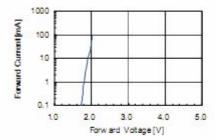




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#### Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage



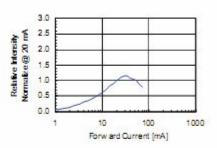
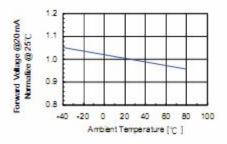
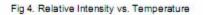


Fig 2. Relative Intensity vs. Forward Current

Fig 3. Forward Voltage vs. Temperature





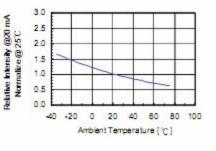
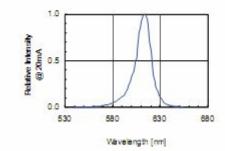


Fig 5. Relative Intensity vs. Wavelength



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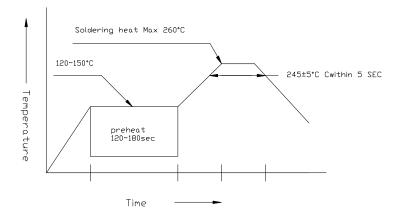


### •Soldering:

1. Manual of soldering

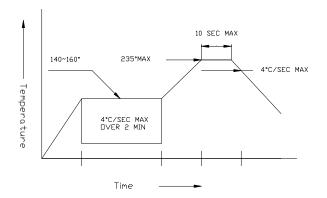
The temperature of the iron tip should not be higher than  $260^{\circ}$ C and Soldering within 3 seconds per solder-land is to be observed 2. DIP soldering (Wave Soldering): Preheating: $120^{\circ}$ C ~150°C within 5 sec.260°C (Max)

Gradual Cooling (Avoid quenching)



3. Reflow Soldering

Preheating:  $140^{\circ}$ C ~ $160^{\circ}$ C ±5 °C ,within 2 minutes. Operation heating:  $235^{\circ}$ C (Max)within 10 seconds(Max) Gradual Cooling (Avoid quenching)



## •Handling:

Care must be taken not to cause to the epoxy resin portion of Yetda LEDS while it is exposed to high temperature.

Care must be taken not rub the epoxy resin portion of Yetda LEDS with hard or sharp article such as the sand blast and the metal hook