



RODAN(TAIWAN)LTD.

INFRARED EMITTING DIODE

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1.ELEMENT APPEARANCE

DATE : JUN.20.2005.

| Model No. | Material | Lighting Color | Resin Color |
|-----------|----------------|----------------|-------------|
| RT-1017ET | AlGaAs/ AlGaAs | Non-Visible | Water Clear |

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25

| Characteristic | Symbol | Rating | Unit |
|---|--------|-------------|------|
| Pulse forward current (t[10us) | IMP | 1 | A |
| Forward direct current | IFM | 100 | mA |
| Reverse voltage | VRM | 5 | V |
| Operating temperature | Topr | -25 to +75 | |
| Storage temperature | Tstg | -25 to +100 | |
| Power dissipation | Pd | 200 | mW |
| Lead soldering temperature (5mm from body) 260 for 5sec. | | | |

3.ELECTRO-OPTICAL CHARACTERISTICS AT Ta=25

| Characteristic | Symbol | Condition | Min. | Typ. | Max. | Unit |
|---------------------------|--------|-----------|------|-------|------|-------|
| Radiant intensity | Ie | IF=50mA | 100 | 180 | | mW/sr |
| Forward voltage | VF | IF=100mA | | 1.6 | 2.0 | V |
| Reverse current | IR | VR=4V | | | 10 | μ A |
| Peak emission wavelength | p | IF=50mA | | 850 | | nm |
| Spectral band width @ 50% | Δ | IF=50mA | | 42 | | nm |
| Rise time/Fall time | tr/tf | IF=50mA | | 25/15 | | ns |
| Viewing angle | 2 1/2 | IF=50mA | | 20 | | deg. |

Radiant Intensity Measurement allowance is ±15 %

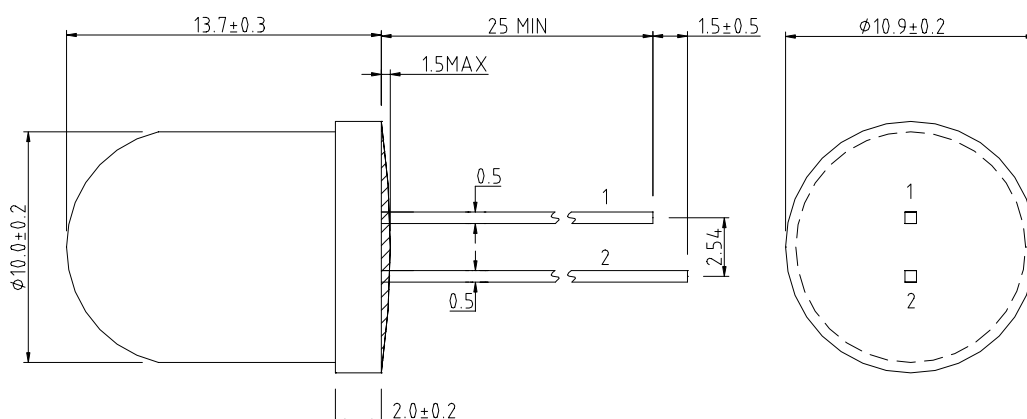
Forward voltage Measurement allowance is ±0.05V

Peak emission wavelength Measurement allowance is ±1nm

4.DIMENSIONS UNIT : m/m

SIGN : 1.CATHODE

2.ANODE

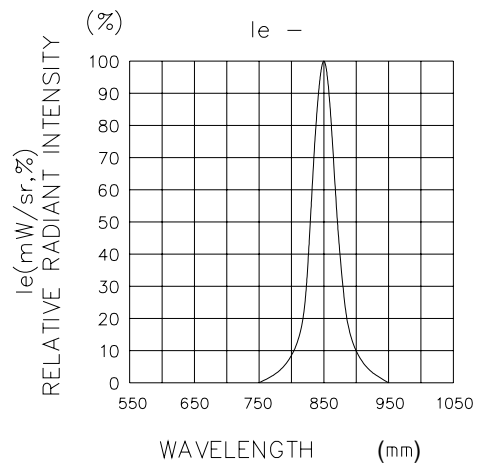
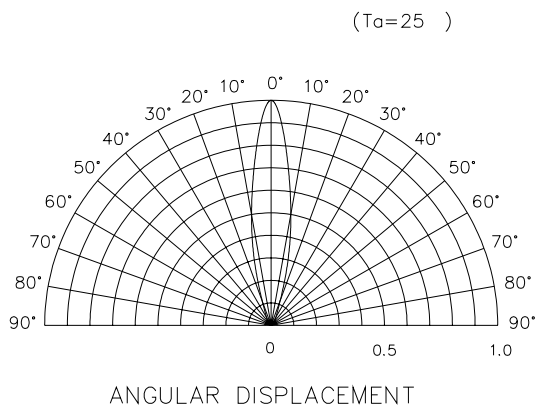
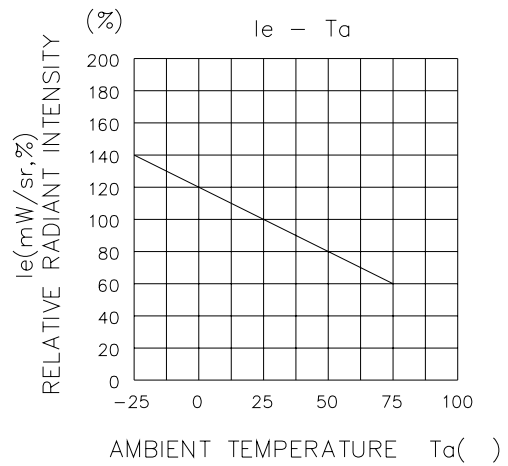
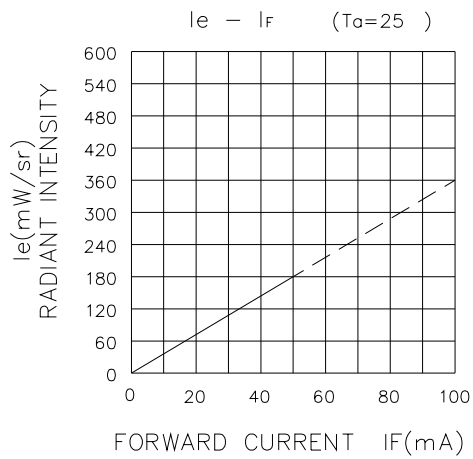
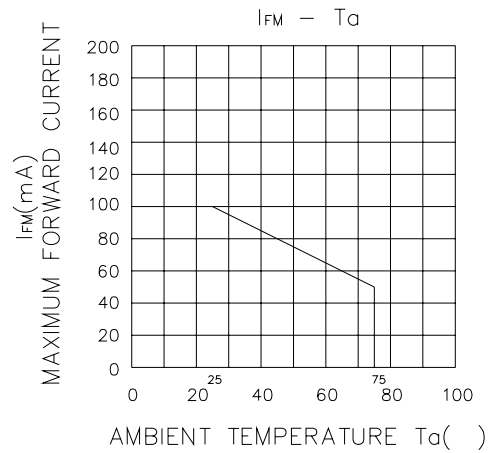
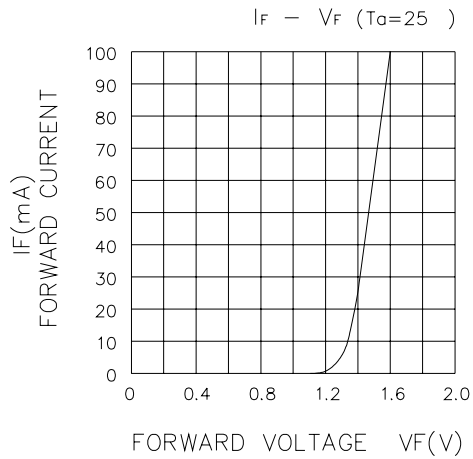




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Model : RT-1017ET

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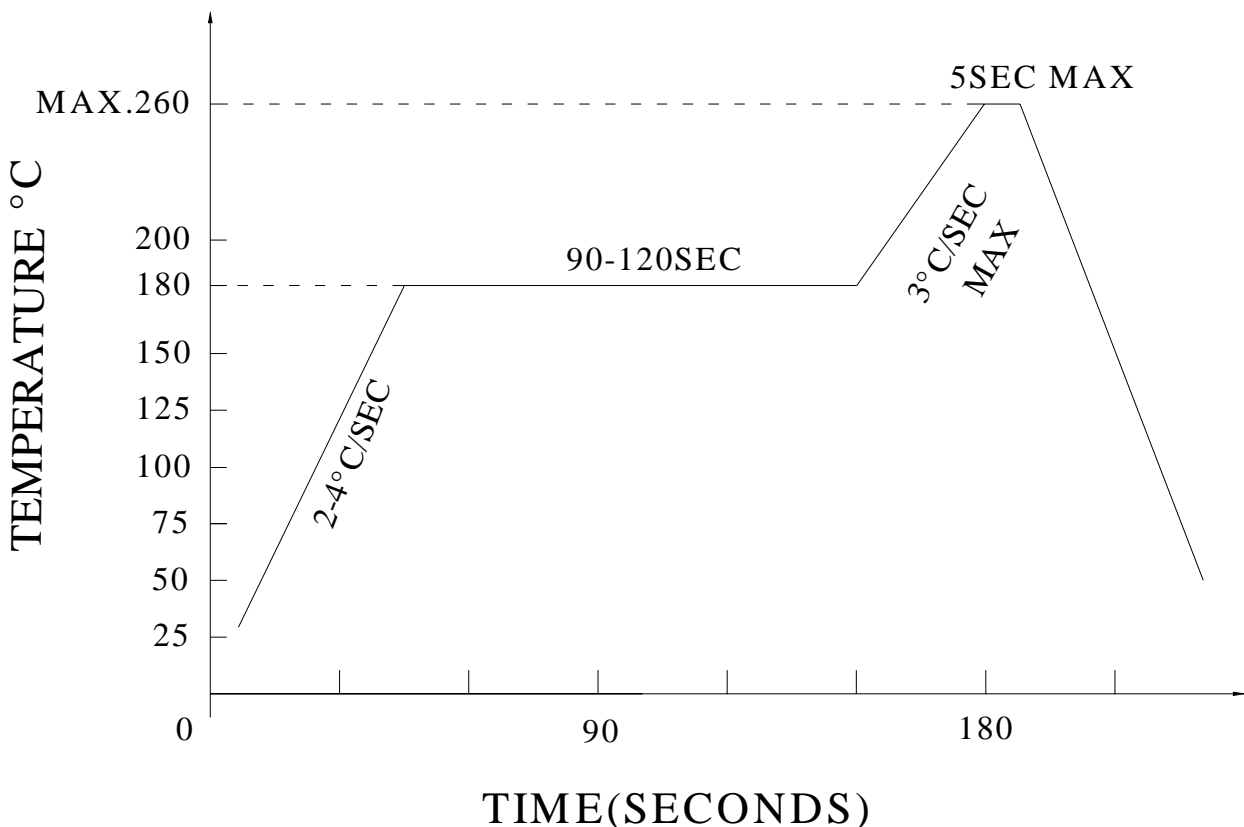


Lamp Condition

In the automatic mounting of LAMP LED to the L/F, any bending, expanding, and pulling forces against the LAMP LED should be minimized to prevent the electrical failures or mechanical damaged.

Reflow Soldering and Temperature Profile

The LAMP LED is designed for the reflow soldering process. Too high temperature or too large temperature gradient may cause the electrical and optical failures.





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Reliability Test Items

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CONDITIONS :

The reliability of products shall be satisfied with items listed below.

| NO. | Item | Condition | Time/Cycle | Number of Damaged |
|-----|----------------------------------|---------------------------|------------------------|-------------------|
| 1 | Soldering Heat Test | 260 | 5 sec | 0/60 |
| 2 | Thermal Shock | 0 (15sec) ~100 (15sec) | 20 cycle | 0/60 |
| 3 | High Temp. Storage | 100 | 1000 Hrs | 0/60 |
| 4 | Low Temp. Storage | -25 | 1000 Hrs | 0/60 |
| 5 | Operation Temperature Cycle Test | -25 ~75 | 100 Cycles , 200Hrs | 0/60 |
| 6 | High Temp. High Humidity Test | 60 , 90% RH | 1000Hrs | 0/60 |
| 7 | Operation Life Test | Room Temp.50mA | 1000Hrs | 0/60 |