



LEDTECH ELECTRONICS CORP.

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## SPECIFICATION

*PART NO. : LT7T31E-41*

**1.9 x 2.9MM RECTANGULAR LED LAMP**

|             |             |                |
|-------------|-------------|----------------|
| Approved by | Checked by  | Prepared by    |
| <i>Jack</i> | <i>Jang</i> | <i>Bao Min</i> |



**1.9 x 2.9MM RECTANGULAR LED LAMP**  
**PART NO. : LT7T31E-41**

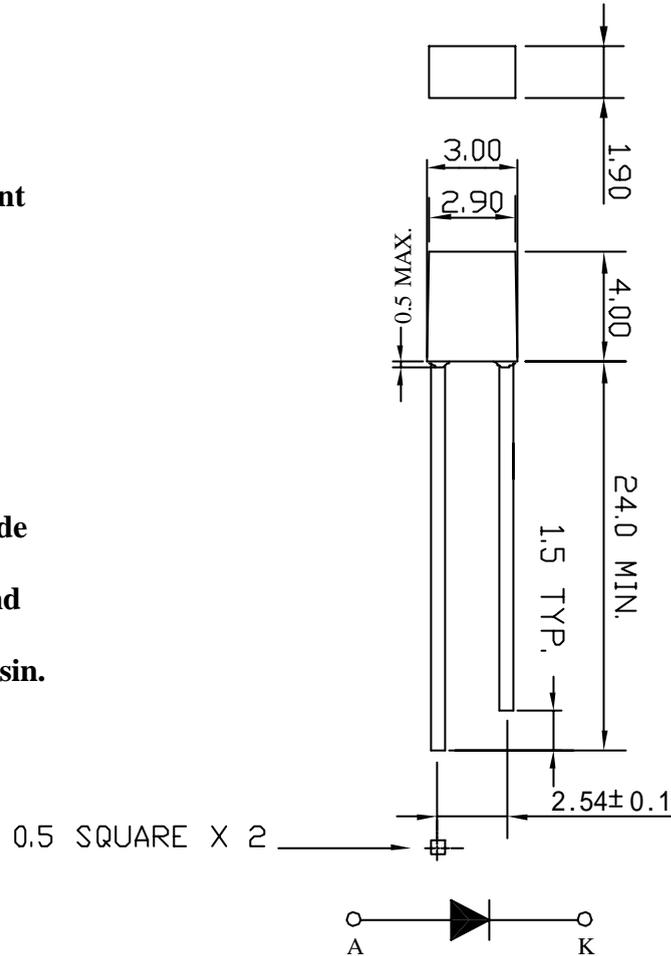
**Features**

- \* High intensity
- \* Reliable and rugged
- \* Low current requirement
- \* IC compatible

**Description**

The Yellow lamp are made with GaAsP/GaP chip and Yellow diffused epoxy resin.

**Package Dimensions**



Notes:

- 1.All dimensions are in millimeters.
- 2.Tolerance is  $\pm 0.25$ mm unless otherwise noted.

| Part No.   | Led Chip  |                | Lens Color      |
|------------|-----------|----------------|-----------------|
|            | Material  | Emitting Color |                 |
| LT7T31E-41 | GaAsP/GaP | Yellow         | Yellow diffused |



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**Absolute Maximum Ratings at Ta=25 :**

| Parameter   | Symbol   | Rating      | Unit |
|---|----------|-------------|------|
| Power Dissipation                                   | Pd       | 78          | mW   |
| Reverse Voltage                                     | Vr       | 5           | V    |
| D.C. Forward Current                                | If       | 30          | mA   |
| Peak Current (1/10 Duty Cycle , 0.1 ms Pulse Width) | If(Peak) | 100         | mA   |
| Operating Temperature Range                         | Topr     | -25 to +85  |      |
| Storage Temperature Range                           | Tstg     | -40 to +100 |      |
| Lead Soldering Temp.(1.6mm from body) for 5 seconds |          | 260         |      |

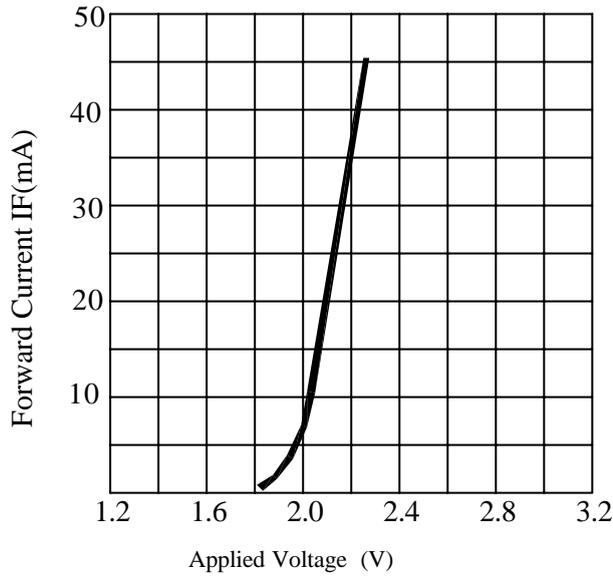
**Electrical and Optical Characteristics :**

| Parameter               | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-------------------------|--------|-----------|------|------|------|------|
| Luminous Intensity      | Iv     | If=2mA    | 8.0  | 14.0 |      | mcd  |
| Forward Voltage         | Vf     | If=20mA   |      | 2.1  | 2.6  | V    |
| Peak Wavelength         | P      | If=20mA   |      | 585  |      | nm   |
| Dominant Wavelength     | D      | If=20mA   |      | 590  |      | nm   |
| Reverse Current         | Ir     | Vr=5V     |      |      | 100  | μ A  |
| Viewing Angle           | 2 1/2  | If=20mA   |      | 110  |      | deg  |
| Spectrum Line Halfwidth |        | If=20mA   |      | 35   |      | nm   |

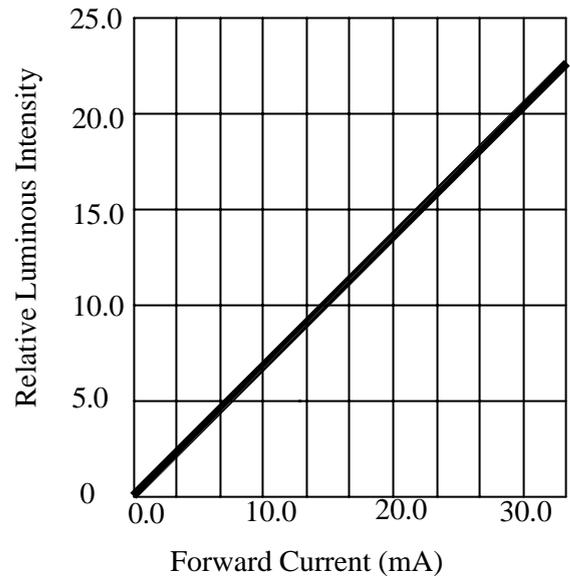


**1.9 x 2.9MM RECTANGULAR LED LAMP  
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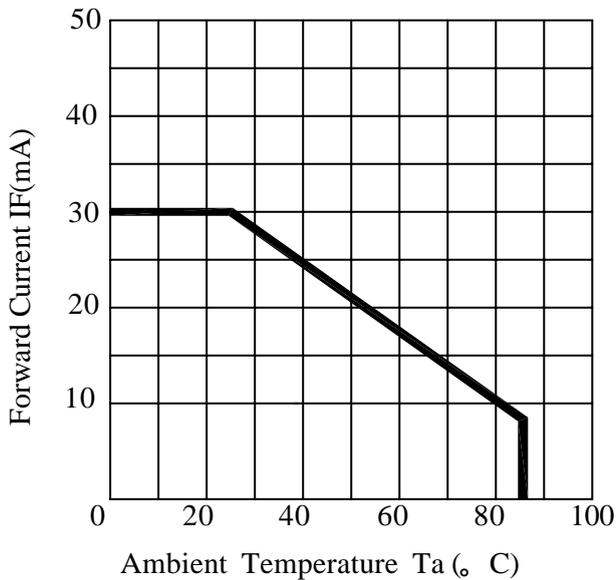
**Typical Electrical / Optical Characteristics Curves :**



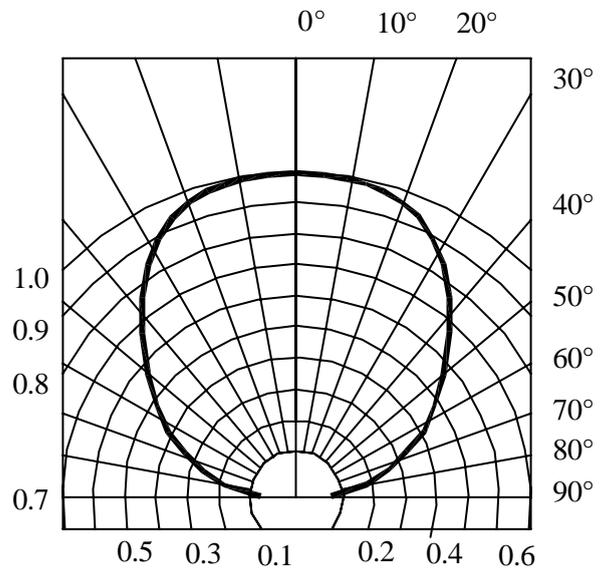
**FORWARD CURRENT VS. APPLIED VOLTAGE**



**FORWARD CURRENT VS. LUMINOUS INTENSITY**



**AMBIENT TEMPERATURE VS. FORWARD CURRENT**



**RADIATION DIAGRAM**



**1.9 x 2.9MM RECTANGULAR LED LAMP**  
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**Reliability Test Method :**

| Test Item                                 | Test Condition                 | Duration Time |
|---|--------------------------------|---------------|
| Operation Life                            | If=20mA / Ta=25                | 168hrs        |
| Storage at High Temperature               | Ta=100                         | 168hrs        |
| Storage at Low Temperature                | Ta=-40                         | 168hrs        |
| Storage at High Temperature/High Humidity | Ta=85 /RH=85 %                 | 168hrs        |
| Operating at High Temperature             | Ta=85 / If=20mA                | 168hrs        |
| Operating at Low Temperature              | Ta=-25 / If=20mA               | 168hrs        |
| Thermal Shock                             | Ta/T=100 /30min~<br>-40 /30min | 10 cycles     |
| Solderability                             | Tsol=230                       | 5 sec         |

**Criteria for Judging The Damage:**

| Item               | Symbol | Test Condition | Criteria for Judgment |                   |
|--------------------|--------|----------------|-----------------------|-------------------|
|                    |        |                | Min.                  | Max.              |
| Forward Voltage    | Vf     | If=20mA        | -----                 | Initial Data x1.1 |
| Reverse Current    | Ir     | Vr=5V          | -----                 | 100 $\mu$ A       |
| Luminous Intensity | Iv     | If=20mA        | Initial Data x0.8     | -----             |

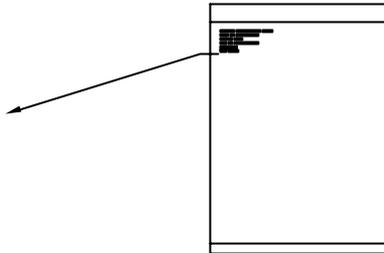


**1.9 x 2.9MM RECTANGULAR LED LAMP**  
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ENCASED TYPE

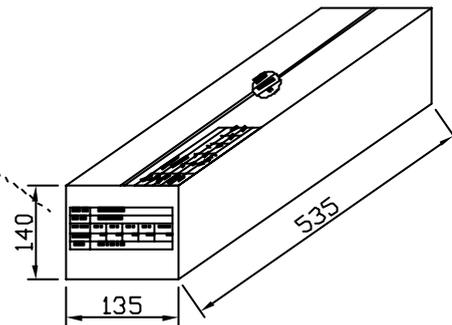
PLASTIC PACKAGE  
 QUANTITY: 1,000 PCS

|                           |   |            |  |  |  |
|---------------------------|---|------------|--|--|--|
| LEDTECH ELECTRONICS CORP. |   |            |  |  |  |
| PART NO :LTXXXX-XX        |   |            |  |  |  |
| Q'TY                      | : | PCS        |  |  |  |
| LOT NO                    | : | XXXXXXXXXX |  |  |  |
| DATE                      | : |            |  |  |  |
| BIN CODE:                 |   |            |  |  |  |



INNER BOX  
 QUANTITY: 20 PACKETS  
 TOTAL: 20,000 PCS

|          |              |      |      |      |       |
|----------|--------------|------|------|------|-------|
| PART NO. | LXXXXX-XX-XX |      |      |      |       |
| LOT NO.  | XXXXXXXXXX   |      |      |      |       |
| BIN CODE | Xx X         | Xx X | Xx X | Xx X | TOTAL |
| QUANTITY | PCS          | PCS  | PCS  | PCS  | PCS   |
| DATE     | XXXX, XX, XX |      |      |      |       |



OUTER CARTON  
 QUANTITY: 4 BOX  
 TOTAL: 80,000 PCS

|                 |              |
|-----------------|--------------|
| CT NO.<br>箱 號   | XX           |
| PART NO.<br>料 號 | LXXXXX-XX-XX |
| QUANTITY<br>數 量 | PCS          |
| N.W.<br>淨 重     | KGS          |
| G.W.<br>毛 重     | KGS          |
| REMARK<br>備 註   |              |

