



LEDTECH ELECTRONICS CORP.

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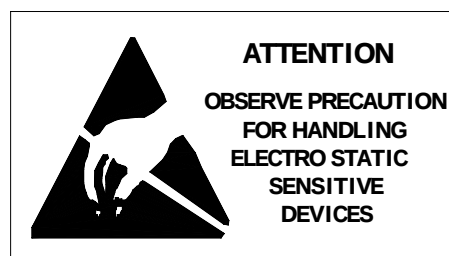
[Http://www.ledtech.com.tw](http://www.ledtech.com.tw)



# SPECIFICATION

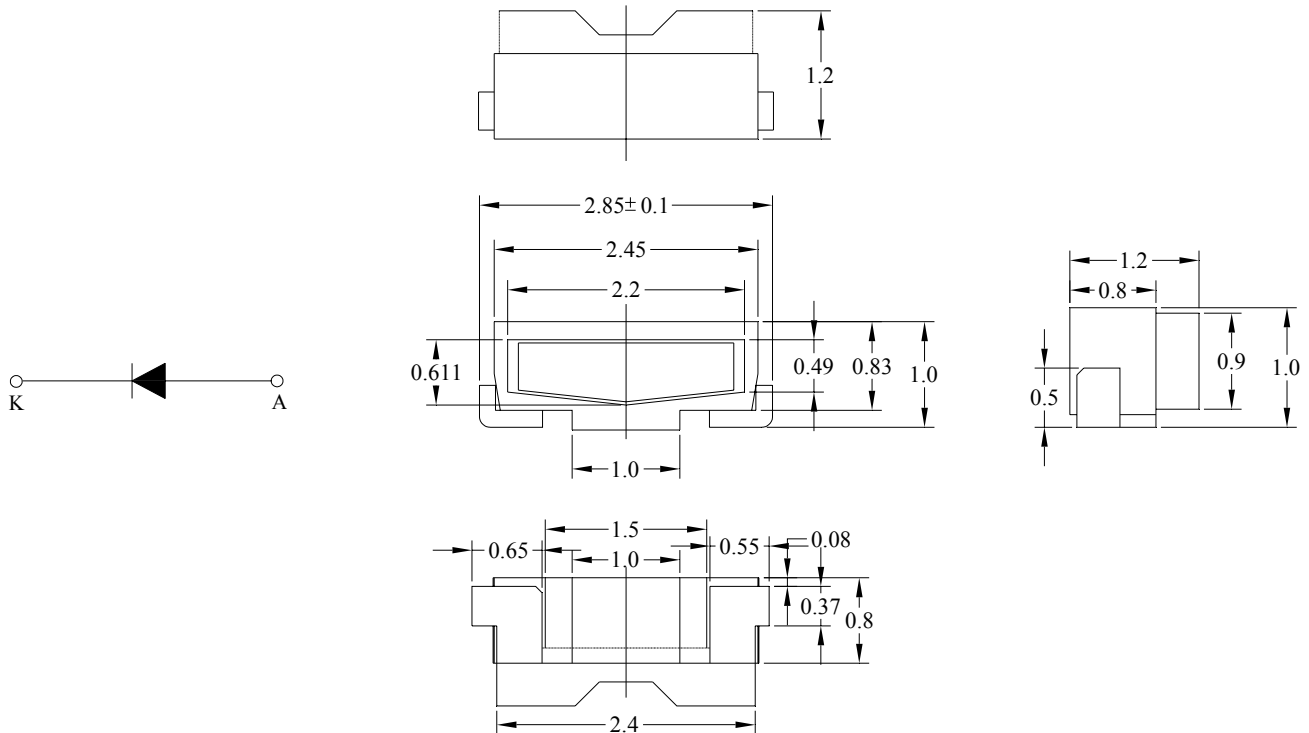
PART NO. : LT1S33-AS-UKE7-SA9-Z

RIGHT ANGLE SMD LED TYPE



| Approved by | Checked by  | Prepared by |
|-------------|-------------|-------------|
| <i>Kj</i>   | <i>Lian</i> | <i>Jie</i>  |

## Package Dimensions



### Notes:

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

## Description

| Part No.             | LED Chip |                | Lens Color  |
|----------------------|----------|----------------|-------------|
|                      | Material | Emitting Color |             |
| LT1S33-AS-UKE7-SA9-Z | AlGaInP  | Yellow         | Water Clear |

**Absolute Maximum Ratings at Ta=25°C**

| Parameter                                       | Symbol                | Rating                              | Unit |
|-------------------------------------------------|-----------------------|-------------------------------------|------|
| Power Dissipation                               | P <sub>d</sub>        | 75                                  | mW   |
| Reverse Voltage                                 | V <sub>r</sub>        | 5                                   | V    |
| D.C. Forward Current                            | I <sub>f</sub>        | 30                                  | mA   |
| Peak Current(1/10Duty Cycle,0.1ms Pulse Width.) | I <sub>f</sub> (Peak) | 100                                 | mA   |
| Operating Temperature Range                     | T <sub>opr.</sub>     | -40 to +100                         | °C   |
| Storage Temperature Range                       | T <sub>stg.</sub>     | -40 to +100                         | °C   |
| Soldering Temperature                           | T <sub>sld.</sub>     | Reflow Soldering: 260°C for 10 sec. |      |
| Electric Static Discharge Threshold (HBM)       | ESD                   | 6000                                | V    |

**Electrical and Optical Characteristics:**

| Parameter               | Symbol         | Condition            | Min. | Typ. | Max. | Unit |
|-------------------------|----------------|----------------------|------|------|------|------|
| Luminous Intensity      | I <sub>v</sub> | I <sub>f</sub> =20mA | 429  | 700  |      | mcd  |
| Forward Voltage         | V <sub>f</sub> | I <sub>f</sub> =20mA |      | 2.1  | 2.5  | V    |
| Peak Wavelength         | λ <sub>p</sub> | I <sub>f</sub> =20mA |      | 591  |      | nm   |
| Dominant Wavelength     | λ <sub>d</sub> | I <sub>f</sub> =20mA |      | 589  |      | nm   |
| Reverse Current         | I <sub>r</sub> | V <sub>r</sub> =5V   |      |      | 100  | μA   |
| Viewing Angle           | 2 θ 1/2        | I <sub>f</sub> =20mA |      | 120  |      | deg  |
| Spectrum Line Halfwidth | Δλ             | I <sub>f</sub> =20mA |      | 15   |      | nm   |

Notes: 1.Tolerance of Luminous Intensity is ±15%.

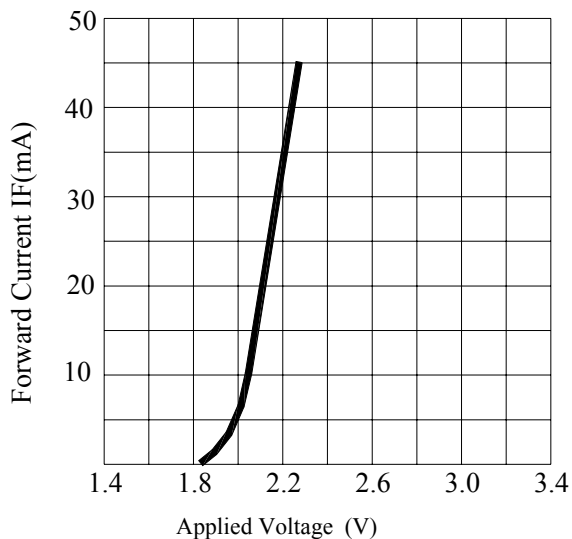
2.Tolerance of Forward Voltage is ±0.1V.

3.Tolerance of Dominant Wavelength is ±1nm.

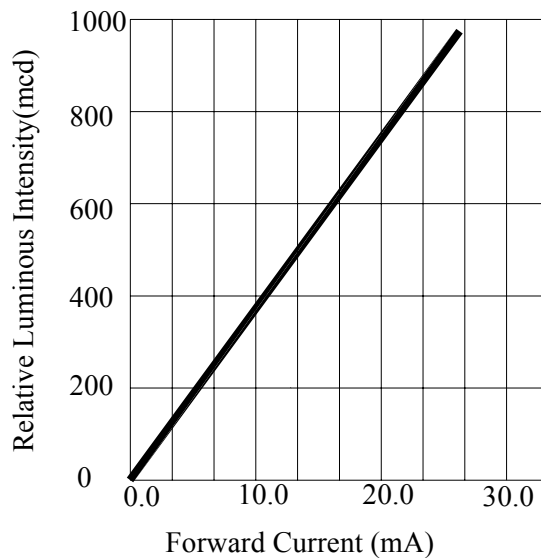
4. Customer's special requirements are also welcome.

## Typical Electrical/Optical Characteristic Curves

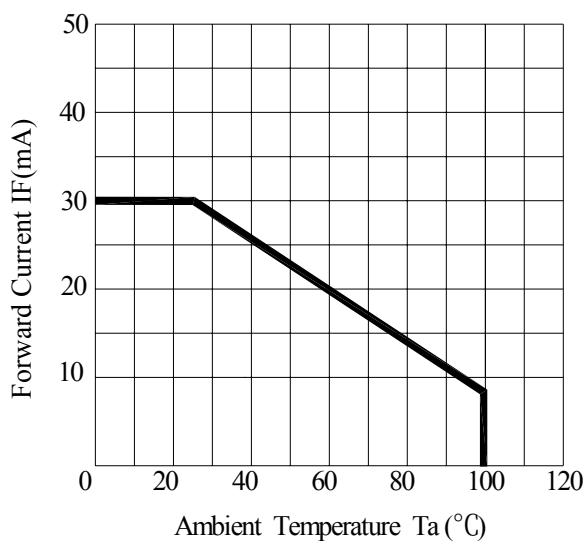
(25°C Ambient Temperature Unless Otherwise Noted)



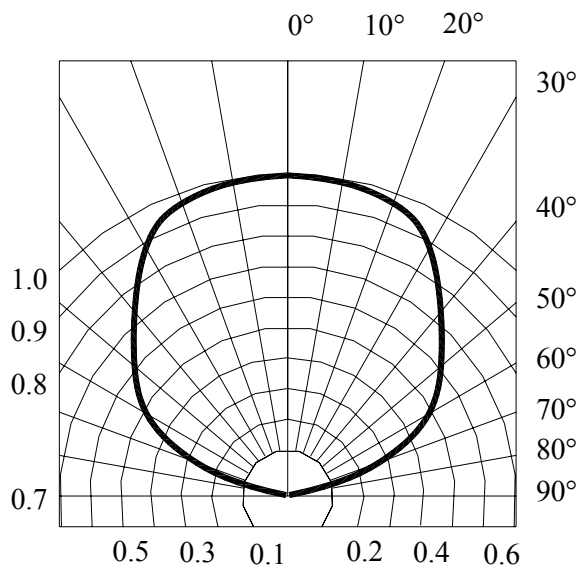
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

## PRECAUTION IN USE

### Storage

Recommended storage environment

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Moisture measures: Please refer to Moisture-sensitive label on reels package bags.

If unused LEDs remain, they should be stored in moisture proof packages, such as sealed container with packages of moisture absorbent material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

Fold the opened bag firmly and keep in dry environment.

### Soldering

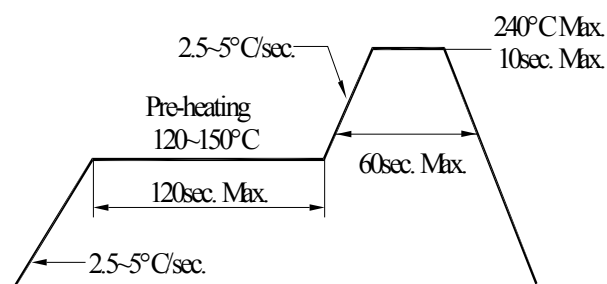
| Reflow Soldering |                                       |                                       |
|------------------|---------------------------------------|---------------------------------------|
|                  | Lead Solder                           | Lead – free Solder                    |
| Pre-heat         | 120~150°C                             | 180~200°C                             |
| Pre-heat time    | 120sec. Max.                          | 120sec. Max.                          |
| Peak temperature | 240°C Max.                            | 260°C Max.                            |
| Soldering time   | 10sec. Max.                           | 10sec. Max.                           |
| Condition        | refer to<br>Temperature-<br>profile 1 | refer to<br>Temperature-<br>profile 2 |

\*After reflow soldering rapid cooling should be avoided.

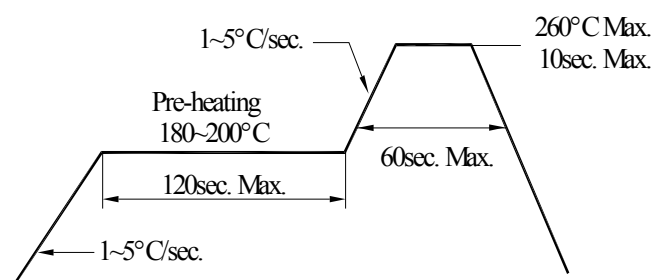
[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.

< 1 : Lead Solder >

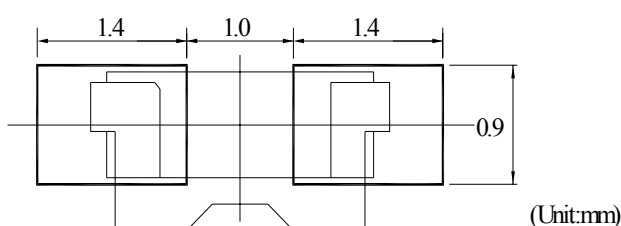


< 2 : Lead-free Solder >



[ Recommended soldering pad design ]

Use the following conditions shown in the figure.

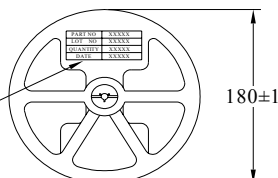




## Packing

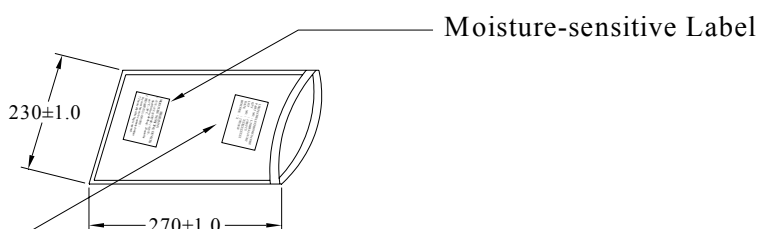
REEL  
QUANTITY: 3,500PCS

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



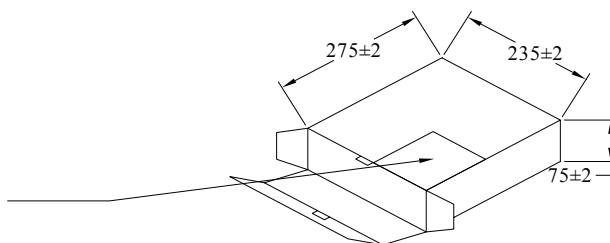
BAG  
QUANTITY: 3,500 PCS

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



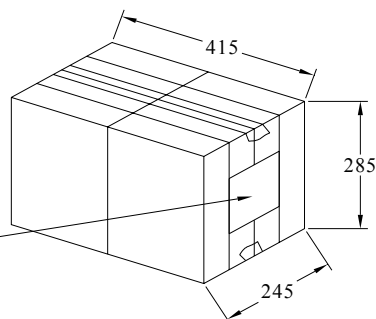
INSIDE BOX  
QUANTITY: 5 BAGS  
TOTAL: 17,500 PCS

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



OUTSIDE BOX  
QUANTITY: 5 BOXES  
TOTAL: 87,500 PCS

|          |        |
|----------|--------|
| C/T NO   | XXXXXX |
| PART NO  | XXXXXX |
| QUANTITY | XXXXXX |
| N. W.    | XXXXXX |
| G. W.    | XXXXXX |
| REMARK   | XXXXXX |



### Notes:

1. All dimensions are in mm, tolerance is  $\pm 2.0$ mm unless otherwise noted.
2. Specifications are subject to change without notice.