# 产品规格承认书

## SPECIFICATION FOR APPROVAL

客户名称（CUSTOMERS） _____

客户型号（CUSTOMER P/N） _____

产品描述（DESCRIPTION） 0.25 inch 4-digit, CC, ultra red

本司型号（LITEKEY P/N） LD2542AUR

送样日期（SAMPLE DATE） _____

| 产品说明书 Specification ☑ | 检验报告 INSPECTION ☐ | 样品 SAMPLE ☐ | 其它 OTHERS ☐ |
|---|---|---|---|
| 核准（APPROVED BY） | 审核（CHECKED BY） | 校对(PROOFREAD BY) | 制作（PREPARED BY） |
| | | | |

更改履历表

| 版本 Version | 日期 Date | 描述 Description | 编制 Maker |
|---|---|---|---|
| V.3.0 | March 2, 2019 | Version 3.0 Released | John Chou |
| | | | |
| | | | |

客 户 判 定 结 果（CUSTOMER VERDICT）

| 承认(OK) ☐ | 不承认(NG) ☐ |
|---|---|

承认签名(APPROVED BY)： 承认时间(APPROVED DATE)：

改善意见(IMPROVED ADVICE)：

## PART NO: LD2542AUR

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

RoHS

### Features:

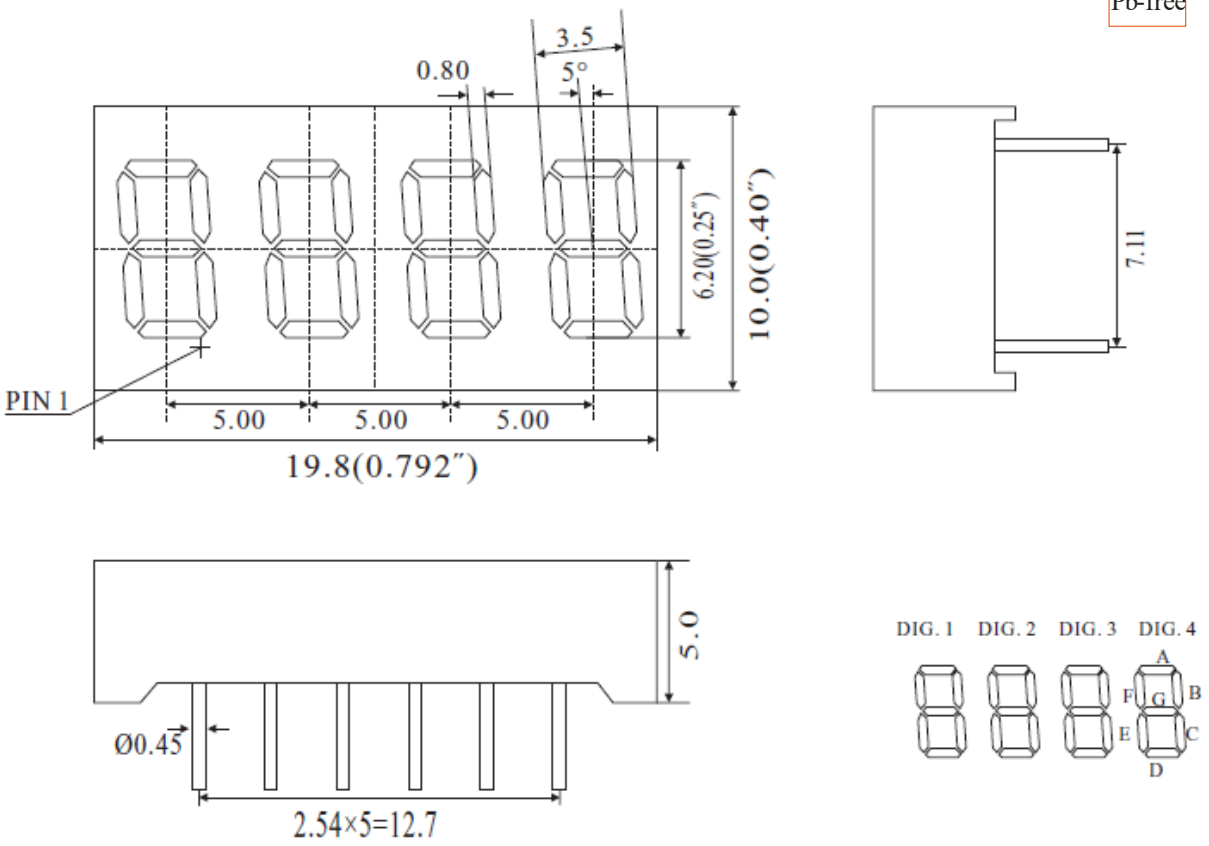
- 6.20 mm (0.25 inch) Digit High
- Excellent Digit Appearance
- Wide Viewing Angle
- I.C. Compatible
- Low Power Consumption

### DESCRIPTION:

- Black Face, White Epoxy
- Common Cathode Display
- Ultra Red Display
- RoHS Compliant

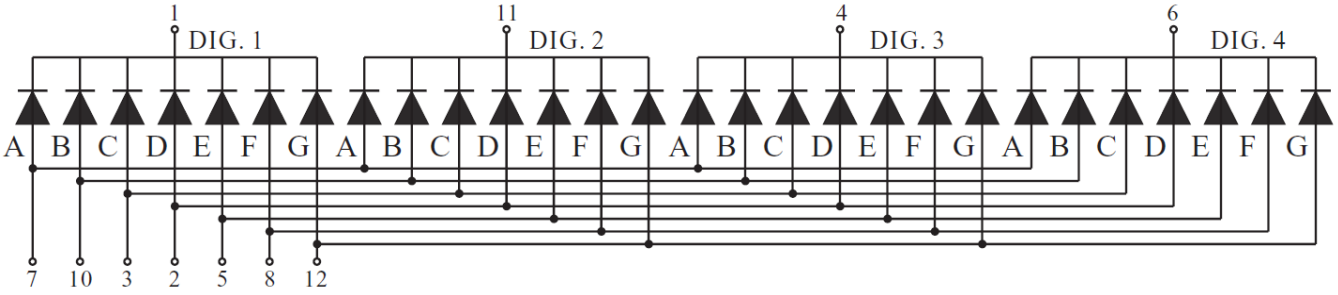
## ·Package Dimensions:

Pb-free




***Notes:***
1. All dimensions are in millimeters (inches), Tolerance is ± 0.25mm(0.01inch) unless otherwise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm

## ·Internal Circuit Diagram:




## ·Selection Guide:

| PART NO. | EMITTING COLOR | CHIP MATERIAL |
|---|---|---|
| LD2542AUR | Ultra Bright Red | AlGaInP |

## ·Absolute Maximum Ratings (Ta = 25℃) :

| PARAMETER | Max | UNIT |
|---|---|---|
| Power Dissipation Per Chip | 78 | mW |
| Peak Forward Current Per Segment (1/10duty cycle ,1KHz) | 50 | mA |
| Average Forward Current Per Chip | 20 | mA |
| Derating Linear From 25°C Per Chip | 0.25 | mA/℃ |
| Reverse Voltage Per Chip | 5 | V |
| Operating Temperature Range | -35℃ to + 105℃ | |
| Storage Temperature Range | -35℃ to + 105℃ | |
| Lead Soldering Temperature 260℃ at 1.6mm From Body for 3 second | | |

## ·Electrical/Optical Characteristics (Ta = 25℃) :

| PARAMETER PER CHIP | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|---|---|---|---|---|---|---|
| Luminous Intensity Per Chip | $I_v$ | 35 | - | 60 | mcd | $I_F$=20mA |
| Forward Voltage Per Chip | $V_F$ | 1.8 | - | 2.6 | V | $I_F$=20mA |
| Peak Emission Wavelength | λp | - | 640 | - | nm | $I_F$=20mA |
| Dominant Emission Wavelength | λd | - | 635 | - | nm | $I_F$=20mA |
| Spectral Line Half-Width | Δλ | - | 20 | - | nm | $I_F$=20mA |
| Reverse Current Per Chip | $I_R$ | - | - | 10 | μ A | $V_R$=5V |

## ·Typical Electro-Optical Characteristic Curve (Ta = 25℃) :

FIG. 1 Forward Current vs. Forward Voltage

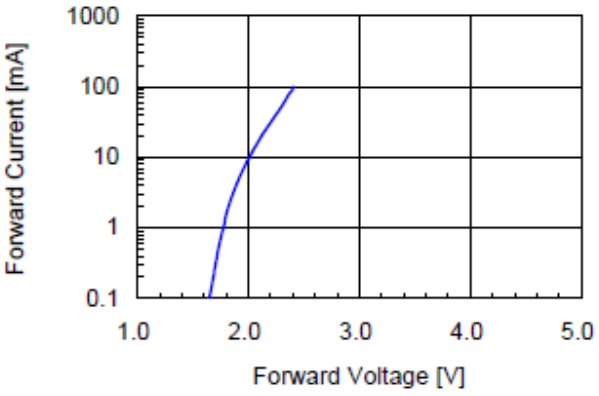



FIG. 2 Relative Intensity vs. Forward Current

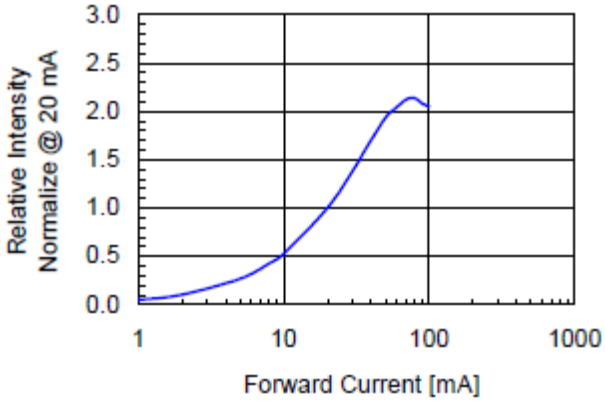



FIG. 3 Forward Voltage vs. Temperature

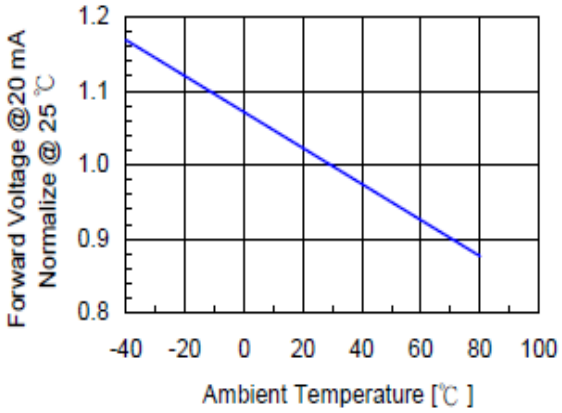



FIG. 4 Relative Intensity vs. Temperature

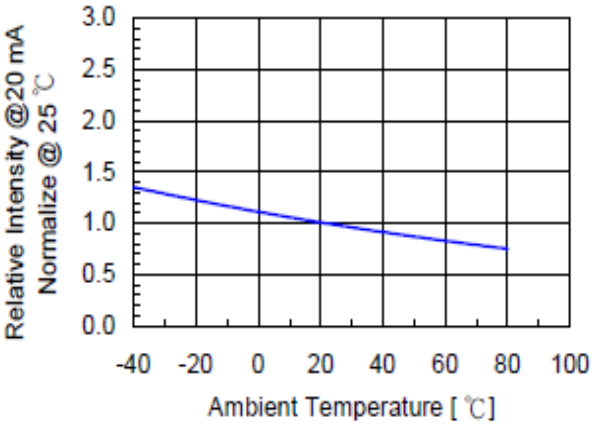
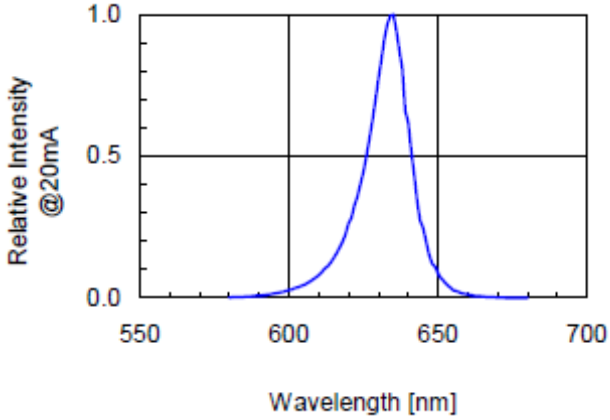
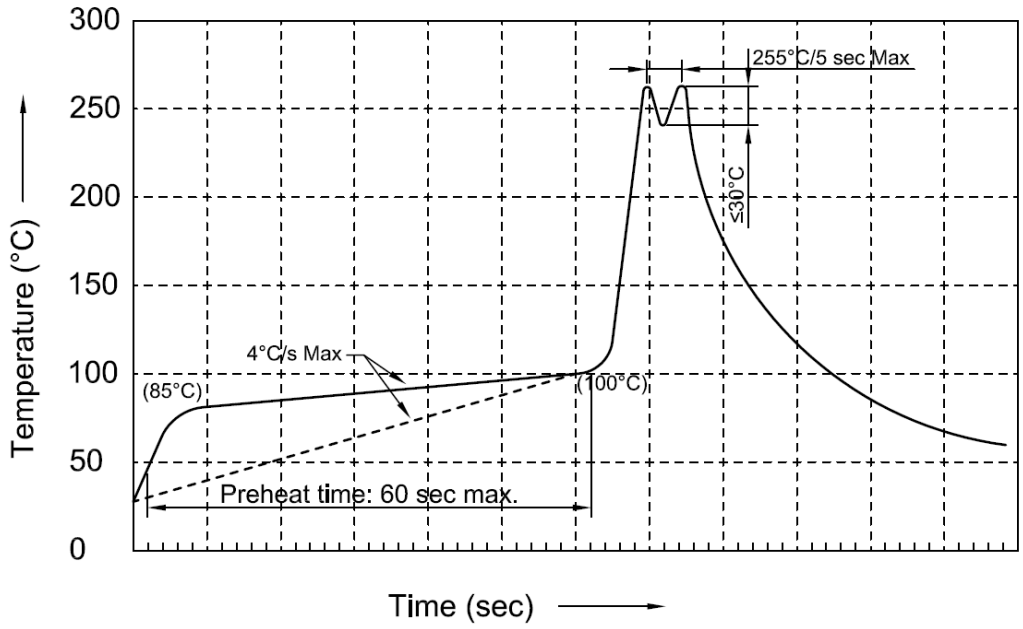



FIG. 5 Relative Intensity vs. Wavelength



## ·Recommended Wave Soldering Profiles:




***Notes:***

1.Recommend pre-heat temperature of 105℃ or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260℃.

2.Peak wave soldering temperature between 245-255℃ for 3 sec (5 sec max).

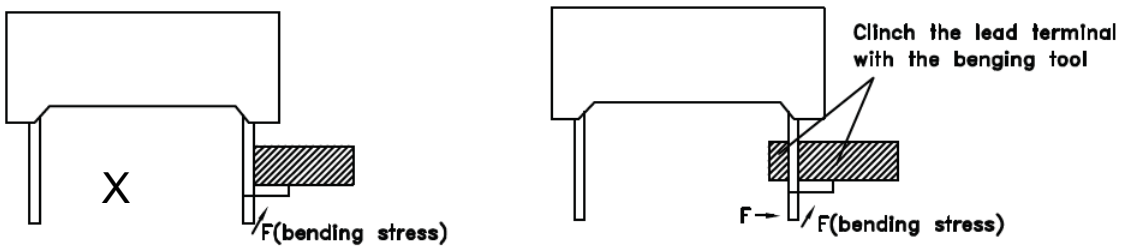
3.Do not apply stress to the epoxy resin while the temperature is above 85℃.

4.Fixtures should not apply stress on the component when mounting and soldering process.

5.More than one wave soldering is not allowed.

## ·Lead Forming:

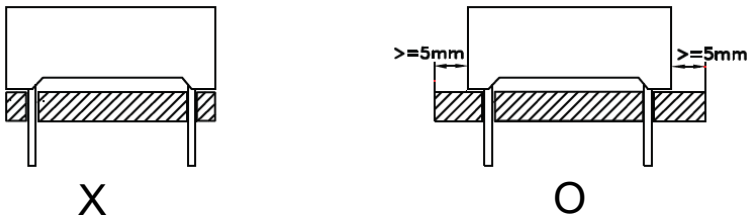
Bend the component leads by hand without proper tools is not allowed. The leads should be bent by clinching the upper part of the lead firmly such that the bending force is not exerted on the plastic body.



## ·Installation:

1. Do not apply stress to the lead terminals.
2. When inserting for assembly, ensure the terminal pitch matches the substrate board's hole pitch to prevent spreading or pinching the lead terminals.


The component shall be placed at least 5mm from edge of PCB to avoid damage caused by excessive heat during wave soldering.




## ·Storage:

1. The LEDs should be stored at temp.≤ 30℃ &RH. ≤70% after being shipped from LITEKEY and the storage life limits are 3 months. If the LEDs are stored for 3 months or more, they can be stored for a year in a sealed container with a nitrogen atmosphere and absorbent material.
2. Please avoid rapid transitions in ambient temperature, especially in high humidity environments where condensation can occur.

## ·Soldering General Notes:

1. Through-hole displays are incompatible with reflow soldering.
2. If components will undergo multiple soldering processes where the components may be subjected to intense heat, please check with LITEKEY for compatibility.

## ·Cleaning:

1. Mild "no-clean" fluxes are recommended for use in soldering.
2. If cleaning is required, LITEKEY recommends washing components enclosure with water only. Do not use organic solvents for cleaning, because they may damage the plastic parts. And the devices should not be washed for more than one minute.

## ·Electrostatic Discharge (ESD) :

1. LEDs can be damaged by electrostatic discharge or surge current (EOS).
2. An ESD wrist strap, ESD shoe strap or antistatic gloves must be worn whenever handling LEDs.
3. Grounded properly must be applied for all devices, equipment and machinery.
4. Use ion blower to neutralize the static charge which might have built up on surface of the LEDs plastic lens as a result of friction between LEDs during storage and handling.

## ·Other:

1. Above specifications may be changed without notice. LITEKEY will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. LITEKEY assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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