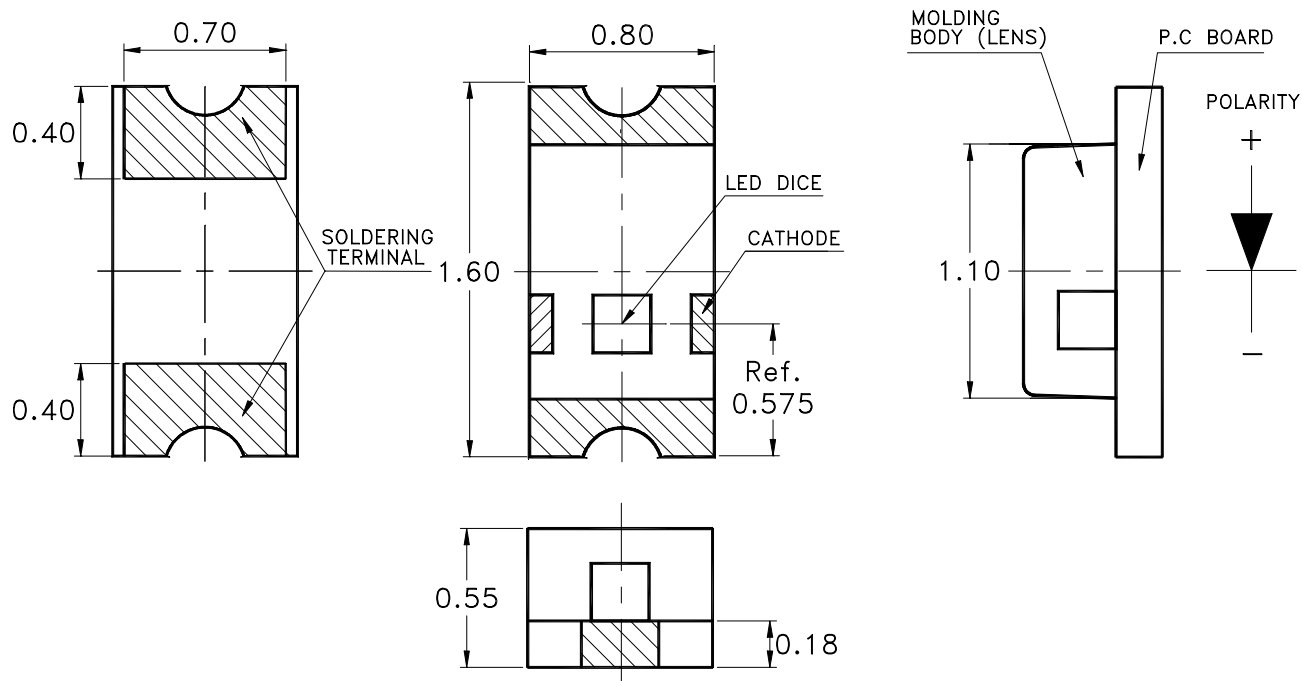


## Property of Lite-On Only

### Features

- \* Super thin (0.55H mm) Chip LED.
- \* Package in 8mm tape on 7" diameter reels.
- \* Compatible with automatic placement equipment.
- \* Compatible with infrared and vapor phase reflow solder process.
- \* EIA STD package.
- \* I.C. compatible.

### Package dimensions



| Part no.     | Lens        | Source Color        |
|--------------|-------------|---------------------|
| LTST-C191YKT | Water Clear | GaAsP on GaP Yellow |

### Notes:

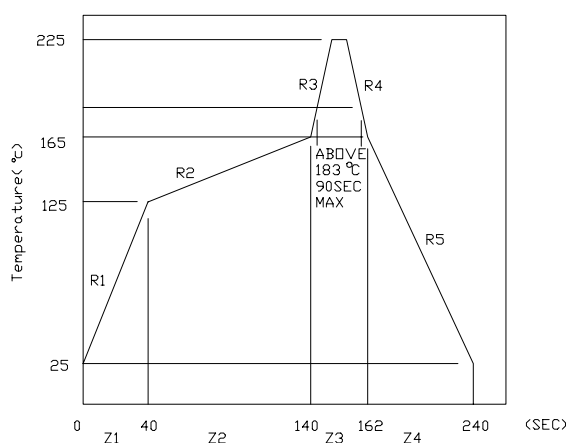
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1\text{mm}$  (.004") unless otherwise noted.

## Property of Lite-On Only

### Absolute Maximum Ratings At Ta=25°C

| Parameter                                                    | LTST-C191YKT         | Unit  |
|--------------------------------------------------------------|----------------------|-------|
| Power Dissipation                                            | 60                   | mW    |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1ms Pulse Width) | 80                   | mA    |
| Continuous Forward Current                                   | 20                   | mA    |
| Derating Linear From 50°C                                    | 0.4                  | mA/°C |
| Reverse Voltage                                              | 5                    | V     |
| Operating Temperature Range                                  | -55°C to + 85°C      |       |
| Storage Temperature Range                                    | -55°C to + 85°C      |       |
| Wave Soldering Condition                                     | 260°C For 5 Seconds  |       |
| Infrared Soldering Condition                                 | 240°C For 10 Seconds |       |
| Vapor Phase Soldering Condition                              | 215°C For 3 Minutes  |       |

Suggest IR Reflow Condition :



**Property of Lite-On Only**
**Electrical   Optical   Characteristics   At   Ta=25°C**

| Parameter                | Symbol            | Part No.<br>LTST- | Min. | Typ. | Max. | Unit     | Test Condition               |
|--------------------------|-------------------|-------------------|------|------|------|----------|------------------------------|
| Luminous Intensity       | IV                | C191YKT           | 2.0  | 4.5  |      | mcd      | IF = 20mA<br>Note 4          |
| Viewing Angle            | $2\theta\ 1/2$    | C191YKT           |      | 130  |      | deg      | Note 2 (Fig.6)               |
| Peak Emission Wavelength | $\lambda\ P$      | C191YKT           |      | 585  |      | nm       | Measurement<br>@Peak (Fig.1) |
| Dominant Wavelength      | $\lambda\ d$      | C191YKT           |      | 588  |      | nm       | Note 3                       |
| Spectral Line Half-Width | $\Delta\ \lambda$ | C191YKT           |      | 35   |      | nm       |                              |
| Forward Voltage          | VF                | C191YKT           |      | 2.1  | 2.6  | V        | IF = 20mA                    |
| Reverse Current          | IR                | C191YKT           |      |      | 100  | $\mu\ A$ | VR = 5V                      |
| Capacitance              | C                 | C191YKT           |      | 30   |      | PF       | VF = 0<br>f = 1MHZ           |

Notes: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2.  $\theta\ 1/2$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength,  $\lambda\ d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

Property of Lite-On Only

## Typical Electrical / Optical Characteristics Curves

(25 °C Ambient Temperature Unless Otherwise Noted)

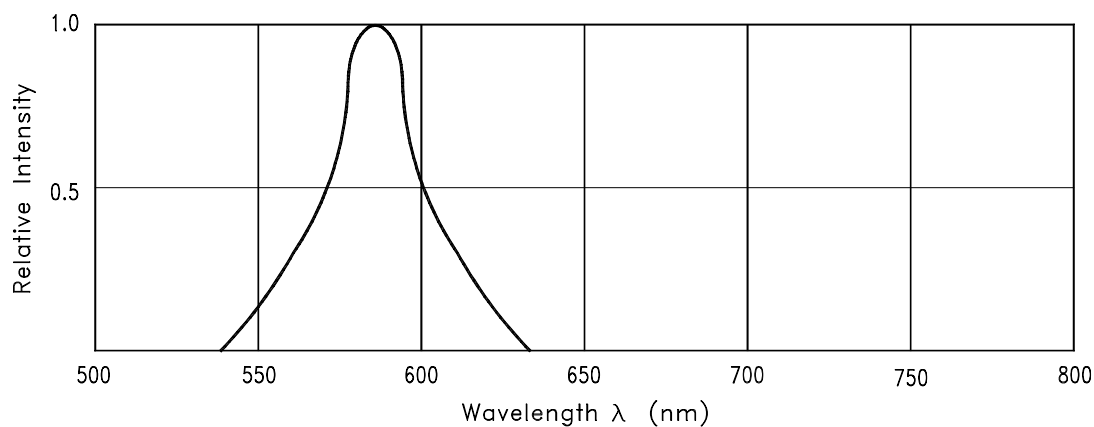


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

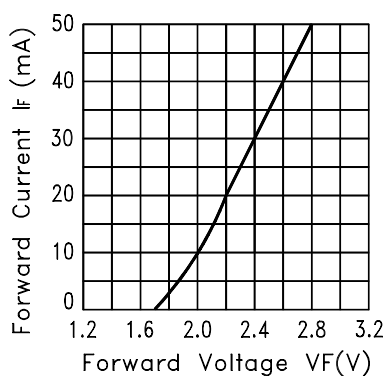


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

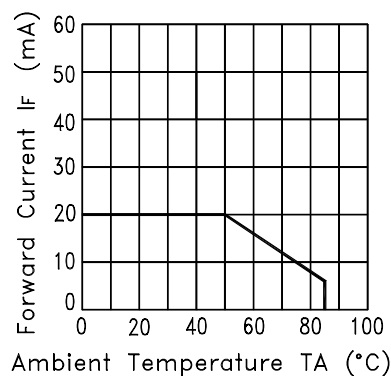


Fig.3 FORWARD CURRENT DERATING CURVE

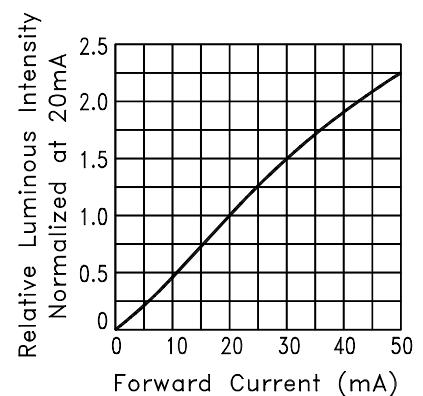


Fig.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

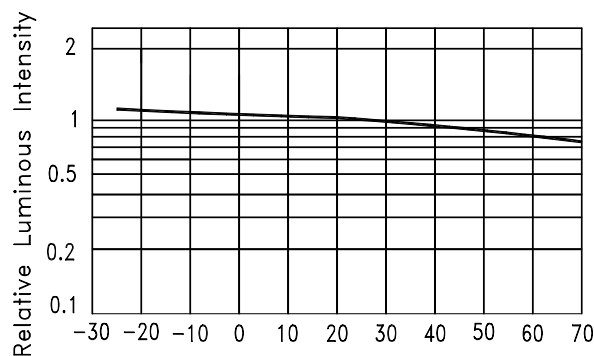


Fig.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

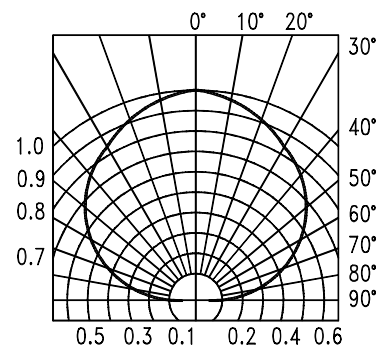
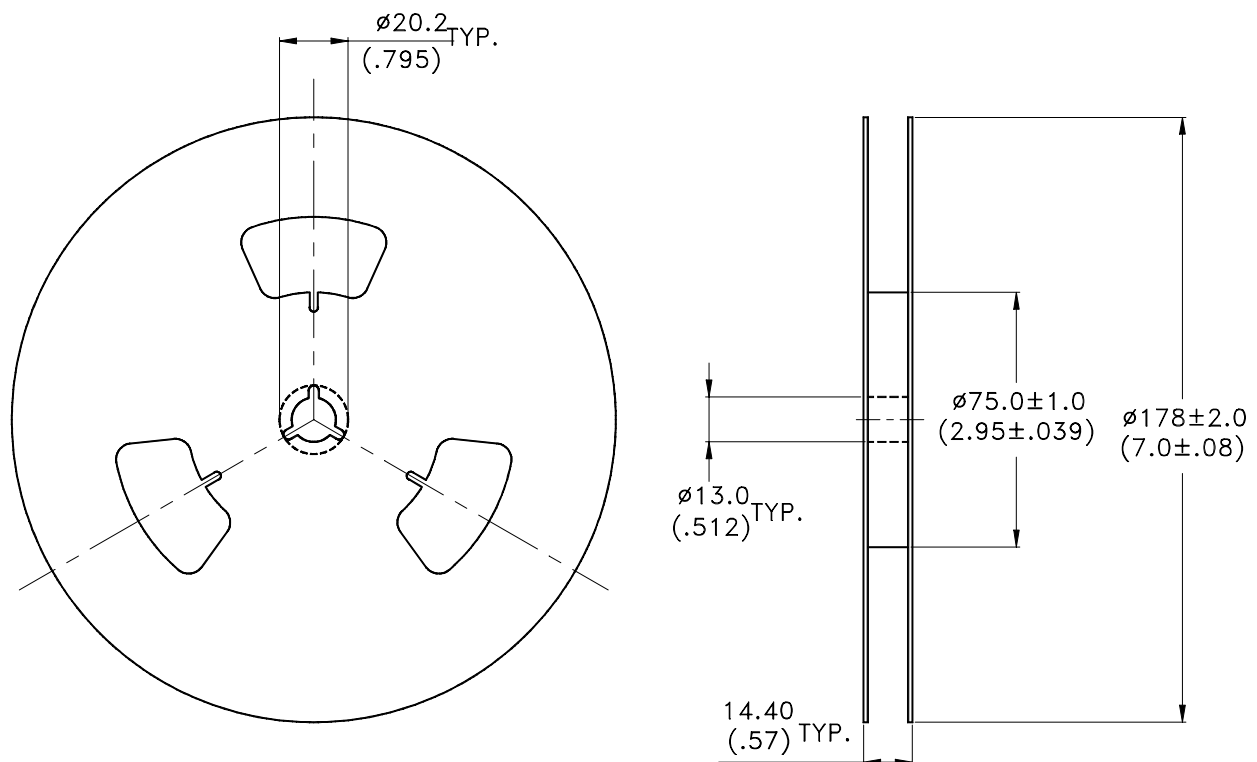


Fig.6 SPATIAL DISTRIBUTION



Property of Lite-On Only



## Notes:

1. Empty component pockets sealed with top cover tape.
2. 7 inch reel-5000 pieces per reel.
3. The maximum number of consecutive missing lamps is two.
4. In accordance with ANSI/EIA 481-1-A-1994 specifications.