

## SMT415R

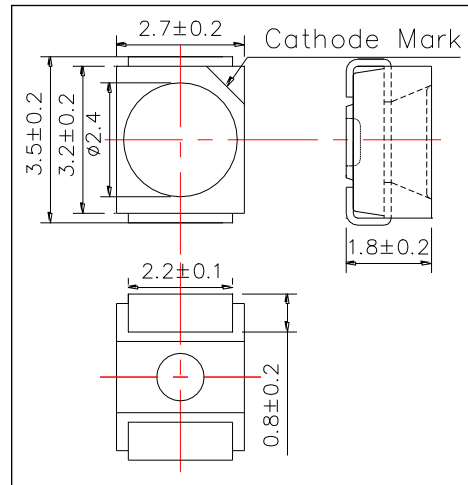
### TOP LED with UV Resistant Resin

SMT415R consists of an InGaN LEDs mounted on the lead frame as TOP LED package and is sealed with UV resistant resin.  
It emits a spectral band of radiation at 415nm.

#### <Specifications>

1. Product Name: TOP LED
2. Type Number: SMT415R
3. Chip:
  - Chip Material: InGaN
  - Peak Wavelength: 415nm
4. Package
  - Lead Frame Die: Silver Plated
  - Package Resin: PPA Resin
  - Lens: UV Resistant Resin

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings |        |                     |      |                     |
|--------------------------|--------|---------------------|------|---------------------|
| Item                     | Symbol | Maximum Rated Value | Unit | Ambient Temperature |
| Power Dissipation        | PD     | 120                 | mW   | Ta=25°C             |
| Forward Current          | IF     | 30                  | mA   | Ta=25°C             |
| Reverse Voltage          | VR     | 5                   | V    | Ta=25°C             |
| Operating Temperature    | TOPR   | -30 ~ +80           | °C   |                     |
| Storage Temperature      | TSTG   | -40 ~ +80           | °C   |                     |
| Soldering Temperature*   | TSOL   | 255                 | °C   |                     |

\* Soldering condition must be completed within 5 second at 255 °C.

| Electro-Optical Characteristics [Ta=25°C typ.] |                 |           |         |          |         |       |
|------------------------------------------------|-----------------|-----------|---------|----------|---------|-------|
| Item                                           | Symbol          | Condition | Minimum | Typical  | Maximum | Unit  |
| Forward Voltage                                | VF              | IF=20mA   |         | 3.4      | 4.0     | V     |
| Reverse Current                                | IR              | VR=5V     |         |          | 10      | uA    |
| Total Radiated Power*                          | PO              | IF=20mA   | 8       | 12       |         | mW    |
| Radiant Intensity**                            | IE              | IF=20mA   |         | 12       |         | mW/sr |
| Brightness***                                  | IV              | IF=20mA   |         | -        |         | mcd   |
| Peak Wavelength                                | $\lambda P$     | IF=20mA   | 410     | 415      | 420     | nm    |
| Half Width                                     | $\Delta\lambda$ | IF=20mA   |         | 16       |         | nm    |
| Viewing Half Angle                             | $\theta_{1/2}$  | IF=20mA   |         | $\pm 45$ |         | deg   |

\* Measured by S3584-08

\*\* Measured by Ando Optical Multi Meter AQ2140 & AQ2741

\*\*\* Measured by Tektronix J-16

