

Part Number: APTB1615SURKSGC-F01

Hyper Red  
Super Bright Green

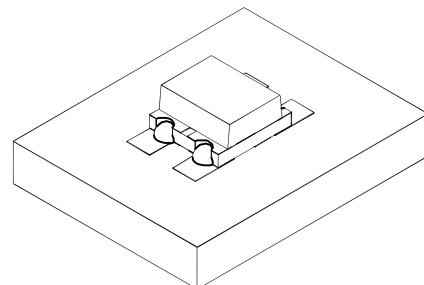
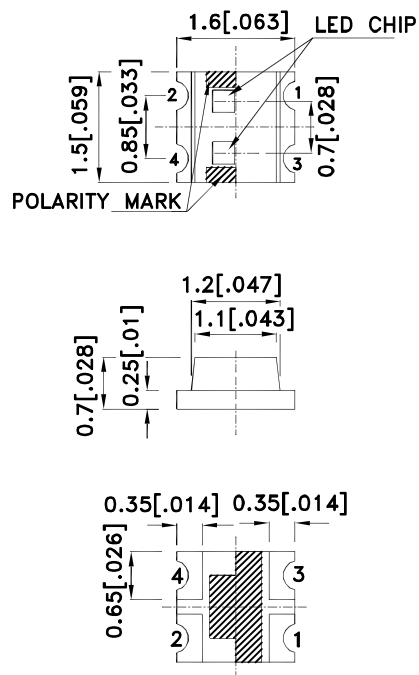
### Features

- 1.6mmx1.5mm SMT LED, 0.7mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

The Hyper Red source color devices are made with Al-GaN on GaAs substrate Light Emitting Diode.  
The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2 (0.008)$  unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



## Selection Guide

| Part No.            | Dice                     | Lens Type   | Iv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|---------------------|--------------------------|-------------|------------------------|------|----------------------|
|                     |                          |             | Min.                   | Typ. | 2θ1/2                |
| APT61615SURKSGC-F01 | Hyper Red (AlGaInP)      | Water Clear | 120                    | 200  | 120°                 |
|                     | Super Bright Green (GaP) |             | 8                      | 15   |                      |

### Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

| Symbol                | Parameter                | Device                          | Typ.        | Max.       | Units | Test Conditions            |
|-----------------------|--------------------------|---------------------------------|-------------|------------|-------|----------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Hyper Red<br>Super Bright Green | 650<br>565  |            | nm    | I <sub>F</sub> =20mA       |
| $\lambda_D$ [1]       | Dominant Wavelength      | Hyper Red<br>Super Bright Green | 630<br>568  |            | nm    | I <sub>F</sub> =20mA       |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Hyper Red<br>Super Bright Green | 28<br>30    |            | nm    | I <sub>F</sub> =20mA       |
| C                     | Capacitance              | Hyper Red<br>Super Bright Green | 35<br>15    |            | pF    | V <sub>F</sub> =0V; f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | Hyper Red<br>Super Bright Green | 1.95<br>2.2 | 2.5<br>2.5 | V     | I <sub>F</sub> =20mA       |
| I <sub>R</sub>        | Reverse Current          | Hyper Red<br>Super Bright Green |             | 10<br>10   | uA    | V <sub>R</sub> = 5V        |

### Notes:

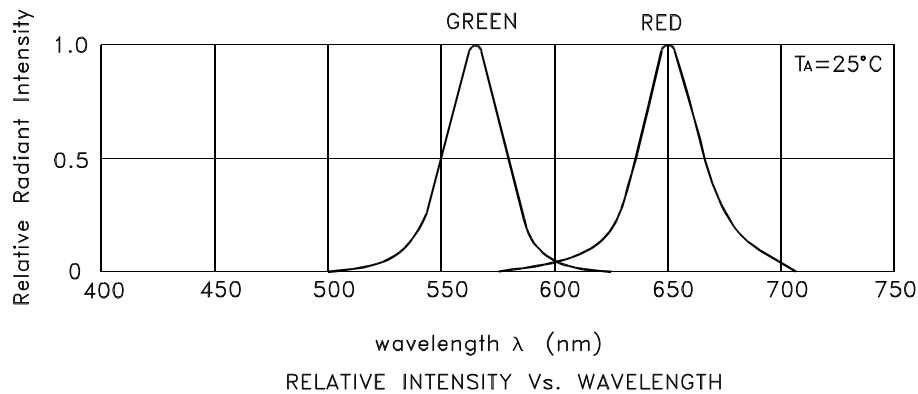
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

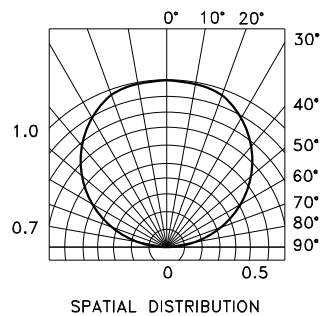
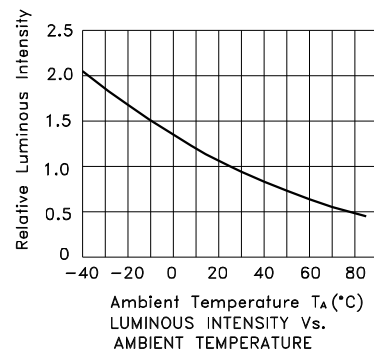
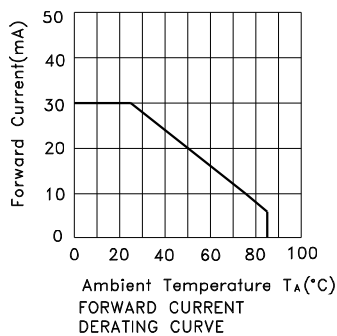
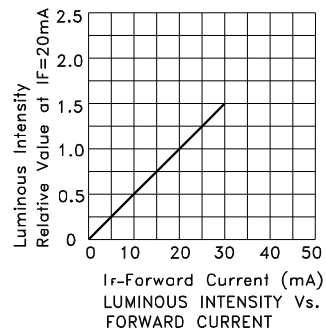
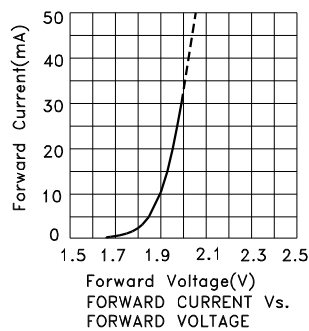
| Parameter                | Hyper Red      | Super Bright Green | Units |
|--------------------------|----------------|--------------------|-------|
| Power dissipation        | 75             | 62.5               | mW    |
| DC Forward Current       | 30             | 25                 | mA    |
| Peak Forward Current [1] | 185            | 140                | mA    |
| Reverse Voltage          | 5              |                    | V     |
| Operating Temperature    | -40°C To +85°C |                    |       |
| Storage Temperature      | -40°C To +85°C |                    |       |

### Note:

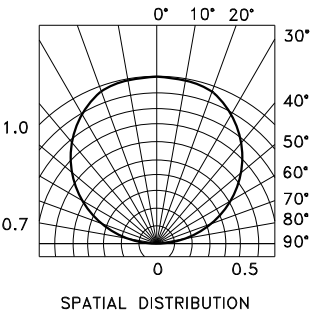
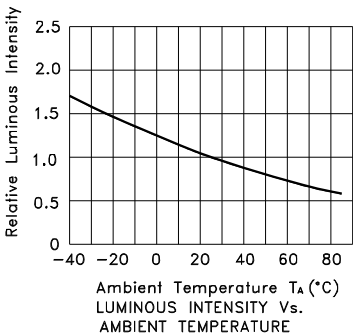
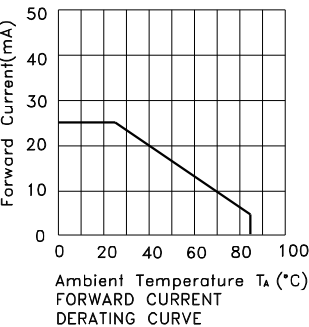
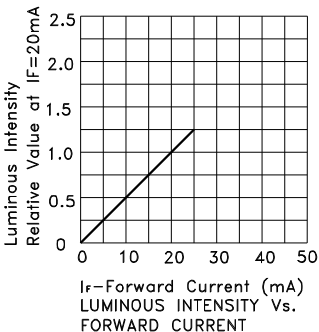
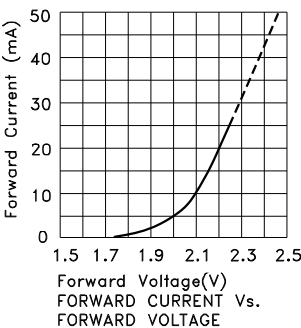
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



## APT1615SURKSGC-F01 Hyper Red



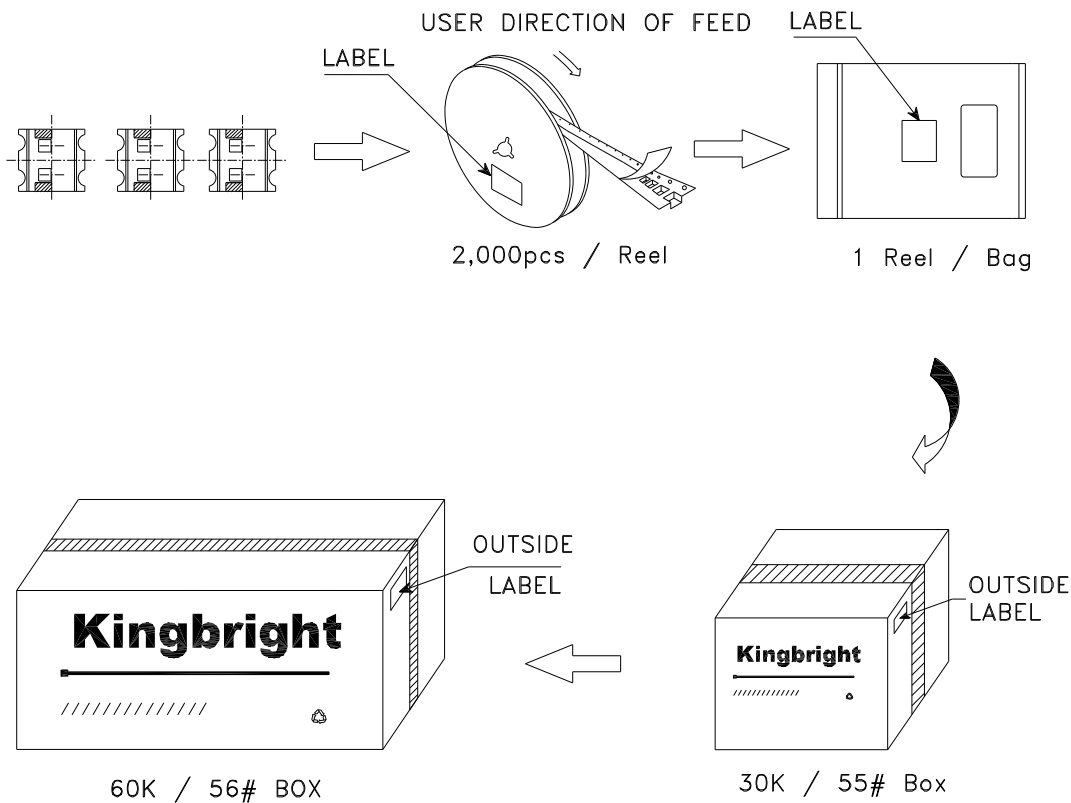
## Super Bright Green





## PACKING & LABEL SPECIFICATIONS

APT1615SURKSGC-F01



|                                                                                                                      |                                               |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Kingbright</b>                                                                                                    |                                               |
| P/NO: APTB1615xxx                                                                                                    |                                               |
| QTY: 2,000 pcs                                                                                                       | Q.C. <div>Q C<br/>xx xx xxxx<br/>PASSED</div> |
| S/N: XXXX                                                                                                            |                                               |
| CODE: XXX                                                                                                            |                                               |
| LOT NO:                                                                                                              |                                               |
| <br>xxxxxxxxxxxxxxxxxxxxxxxxxxxx |                                               |
| RoHS Compliant                                                                                                       |                                               |