

AP1608SYCK

SUPER BRIGHT YELLOW

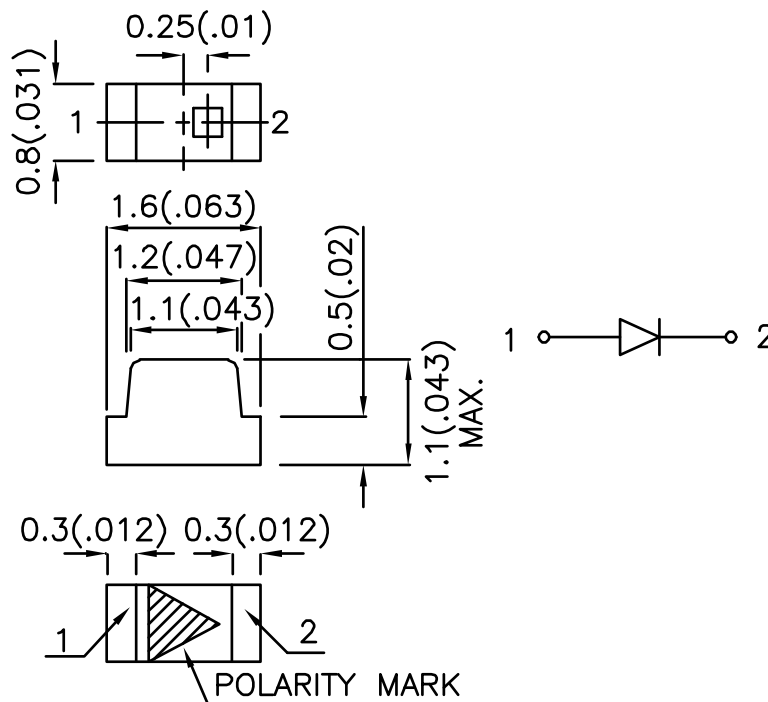
### Features

- 1.6mmX0.8mm SMT LED, 1.1mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- RoHS COMPLIANT.

### Description

The Super Bright Yellow source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.   | Dice                          | Lens Type   | Iv (mcd)<br>@ 20mA |      | Viewing<br>Angle |
|------------|-------------------------------|-------------|--------------------|------|------------------|
|            |                               |             | Min.               | Typ. | 2 θ 1/2          |
| AP1608SYCK | SUPER BRIGHT YELLOW (InGaAlP) | WATER CLEAR | 18                 | 120  | 120°             |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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

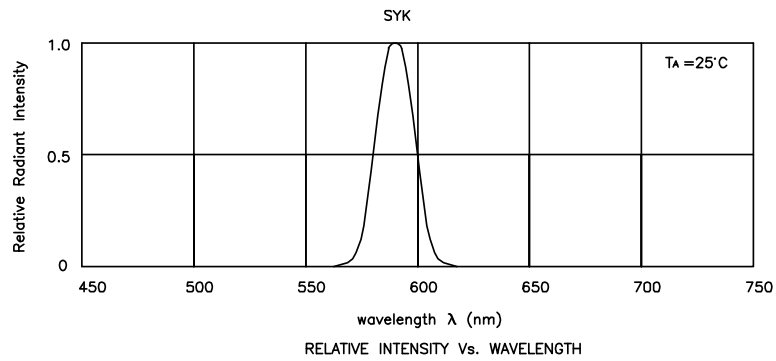
| Symbol | Parameter                | Device              | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|---------------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | IF=20mA         |
| λD     | Dominant Wavelength      | Super Bright Yellow | 590  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Super Bright Yellow | 20   |      | nm    | IF=20mA         |
| C      | Capacitance              | Super Bright Yellow | 20   |      | pF    | VF=0V;f=1MHz    |
| VF     | Forward Voltage          | Super Bright Yellow | 2.0  | 2.5  | V     | IF=20mA         |
| IR     | Reverse Current          | Super Bright Yellow |      | 10   | uA    | VR = 5V         |

## Absolute Maximum Ratings at TA=25°C

| Parameter                     | Super Bright Yellow | Units |
|-------------------------------|---------------------|-------|
| Power dissipation             | 125                 | mW    |
| DC Forward Current            | 30                  | mA    |
| Peak Forward Current [1]      | 175                 | mA    |
| Reverse Voltage               | 5                   | V     |
| Operating/Storage Temperature | -40°C To +85°C      |       |

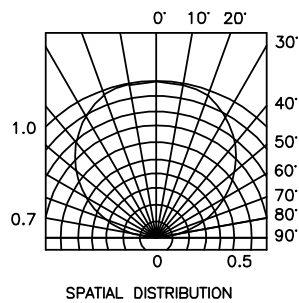
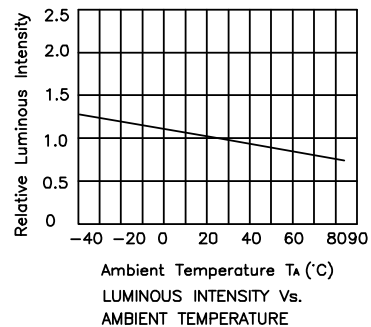
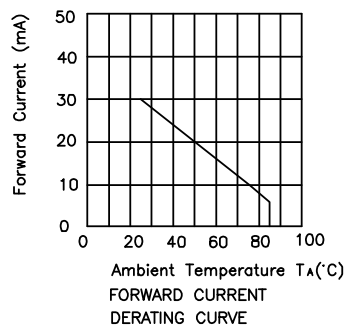
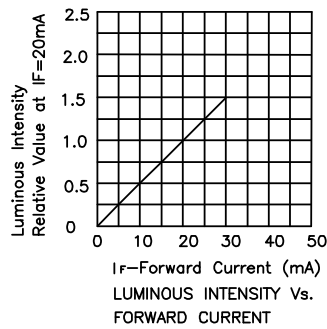
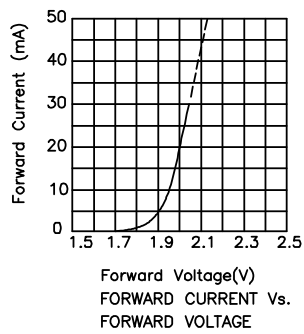
Note:

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



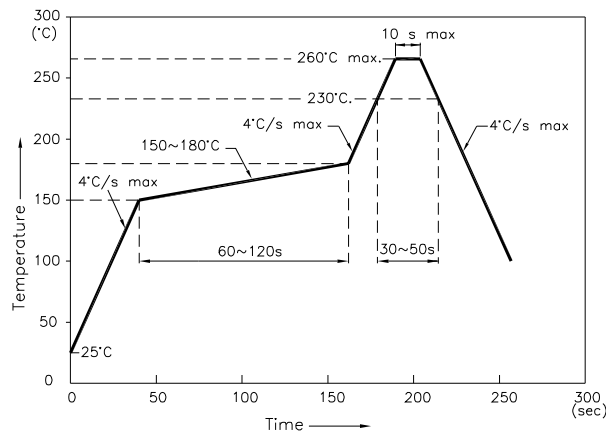
## Super Bright Yellow

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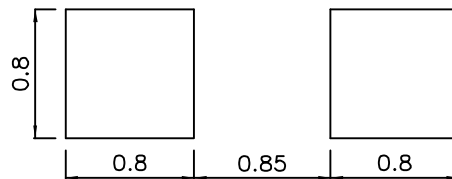
Reflow Soldering Profile For Lead-free SMT Process.



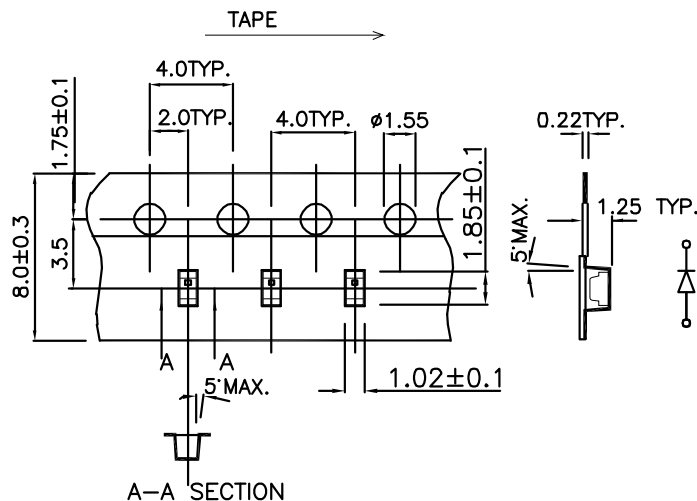
**NOTES:**

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)



If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.