

AP2012SYCK

SUPER BRIGHT YELLOW

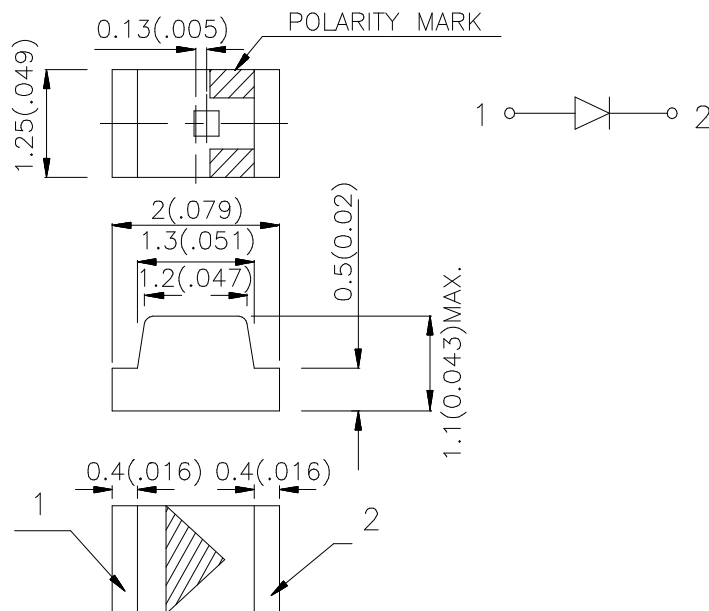
### Features

- 2.0mmx1.25mm 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. | 2θ1/2            |
| AP2012SYCK | 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 T<sub>A</sub>=25°C

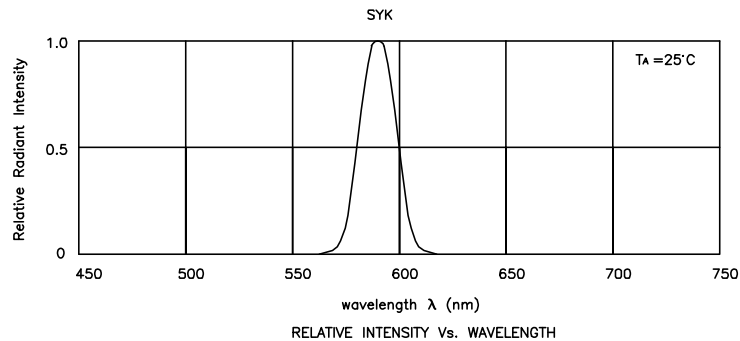
| Symbol            | Parameter                | Device              | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominant Wavelength      | Super Bright Yellow | 590  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | Super Bright Yellow | 20   |      | nm    | I <sub>F</sub> =20mA      |
| C                 | Capacitance              | Super Bright Yellow | 20   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>    | Forward Voltage          | Super Bright Yellow | 2.0  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | Super Bright Yellow |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at T<sub>A</sub>=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      |       |

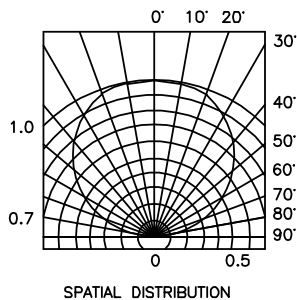
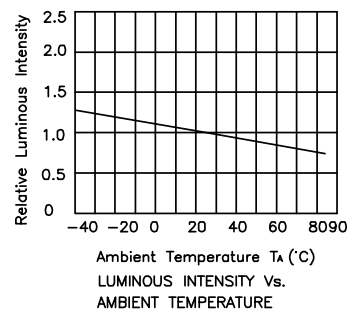
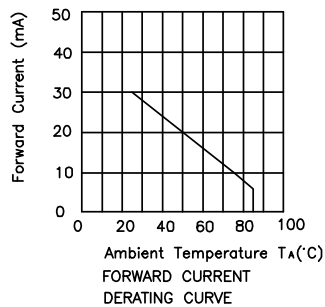
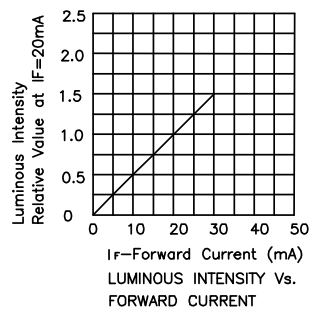
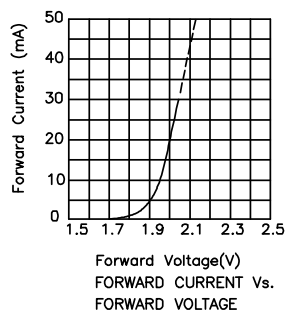
Note:

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



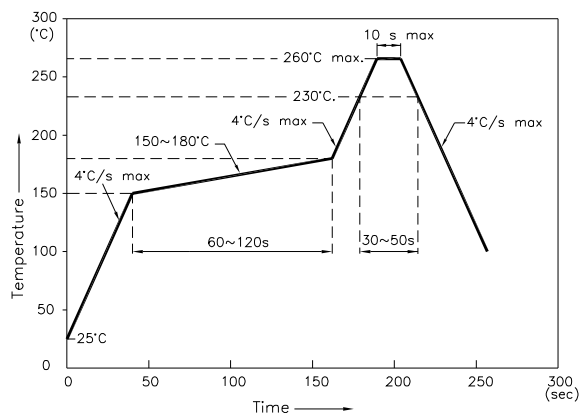
## Super Bright Yellow

## AP2012SYCK



**AP2012SYCK**

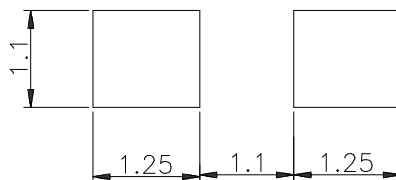
Reflow Soldering Profile For Lead-free SMT Process.



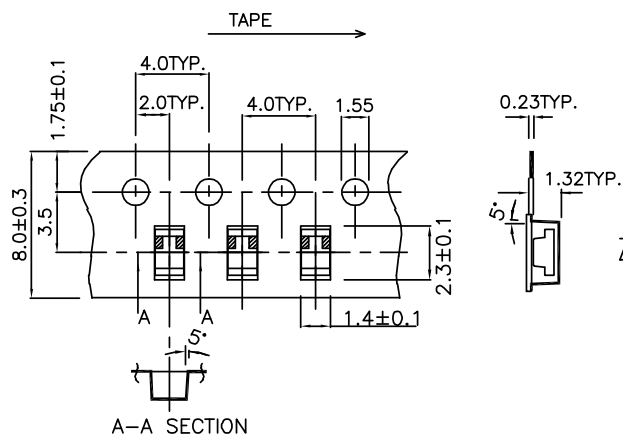
NOTES:

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)



## Remarks:

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:  $\pm 1\text{nm}$
2. Luminous Intensity:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.

