



# THE DATASHEET OF AM2520SURC03

PRELIMINARY SPEC

Part Number: AM2520SURC03

Hyper Red

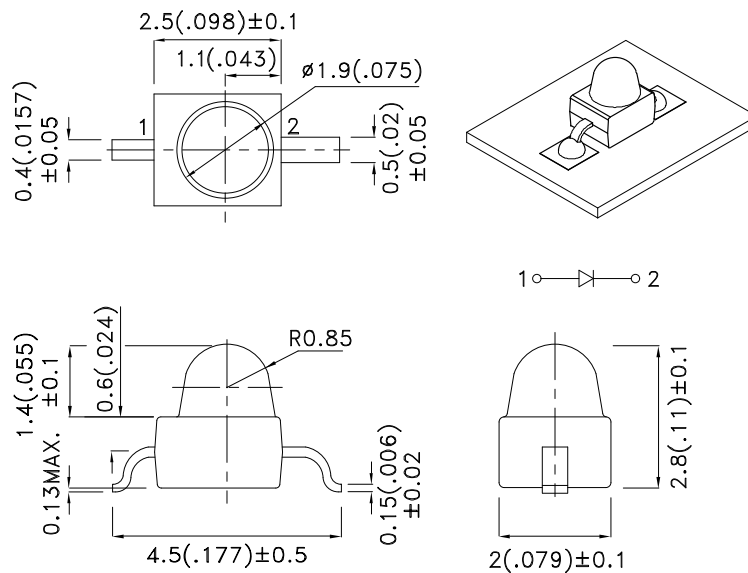
### Features

- SUBMINIATURE PACKAGE.
- WIDE VIEWING ANGLE.
- GULL WING LEAD.
- LONG LIFE - SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- PACKAGE : 1000PCS / REEL.
- RoHS COMPLIANT.

### Description

The Hyper Red source color devices are made with In-GaAlP on GaAs substrate Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.
5. 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                |
| AM2520SURC03 | Hyper Red (InGaAlP) | WATER CLEAR | 650                    | 1600 | 20°                  |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline 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 | 640  |      | nm    | I <sub>F</sub> =20mA       |
| $\lambda_D$ [1]       | Dominant Wavelength      | Hyper Red | 628  |      | nm    | I <sub>F</sub> =20mA       |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Hyper Red | 27   |      | nm    | I <sub>F</sub> =20mA       |
| C                     | Capacitance              | Hyper Red | 45   |      | pF    | V <sub>F</sub> =0V; f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | Hyper Red | 1.9  | 2.5  | V     | I <sub>F</sub> =20mA       |
| I <sub>R</sub>        | Reverse Current          | Hyper Red |      | 10   | uA    | V <sub>R</sub> =5V         |

Notes:

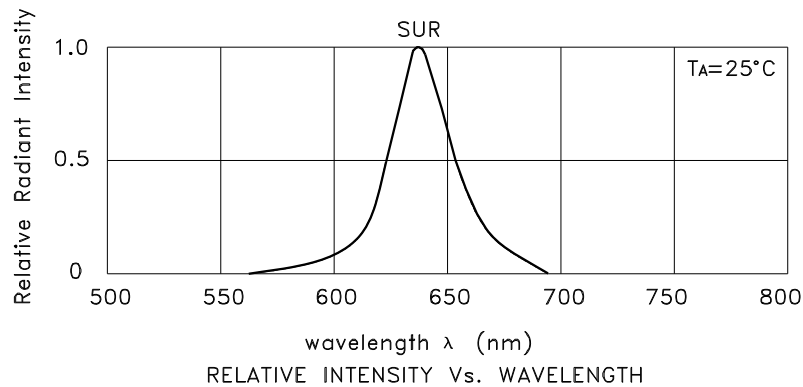
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

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

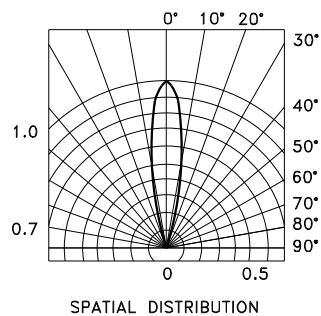
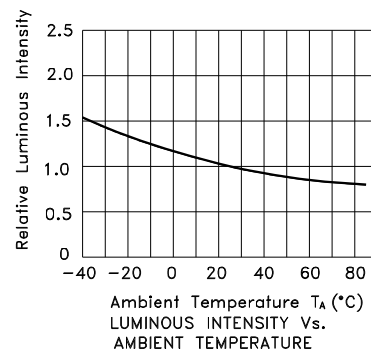
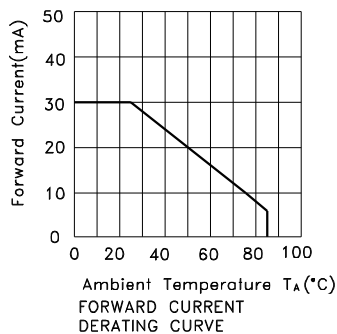
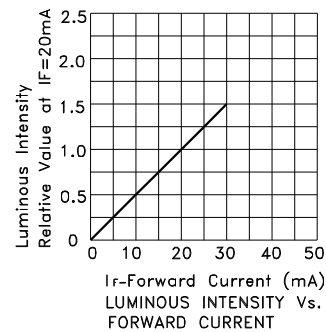
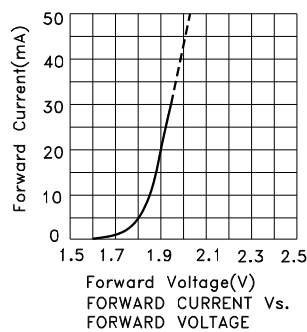
Note:

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



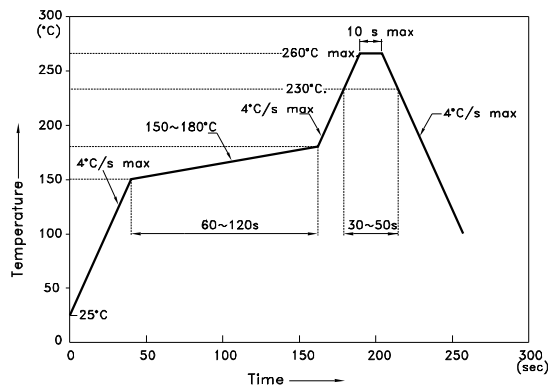
Hyper Red

AM2520SURC03



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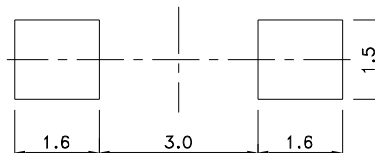
### Reflow Soldering Profile For Lead-free SMT Process.



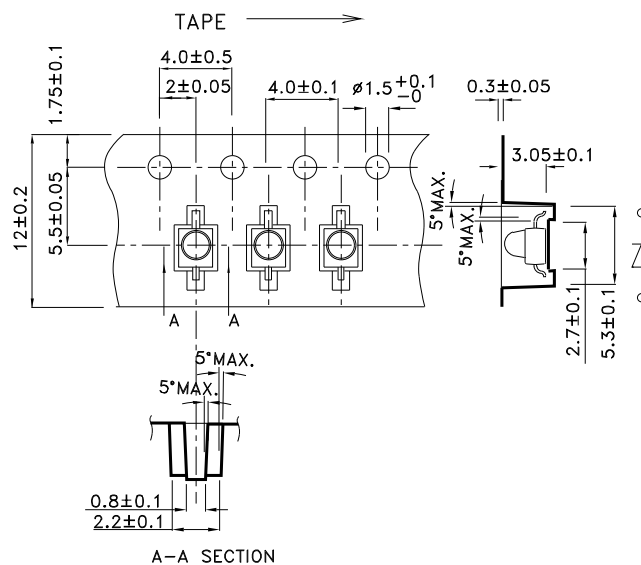
#### NOTES:

1. We recommend the reflow temperature  $245^{\circ}\text{C} (+/-5^{\circ}\text{C})$ . The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
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; Tolerance: $\pm 0.1$ )

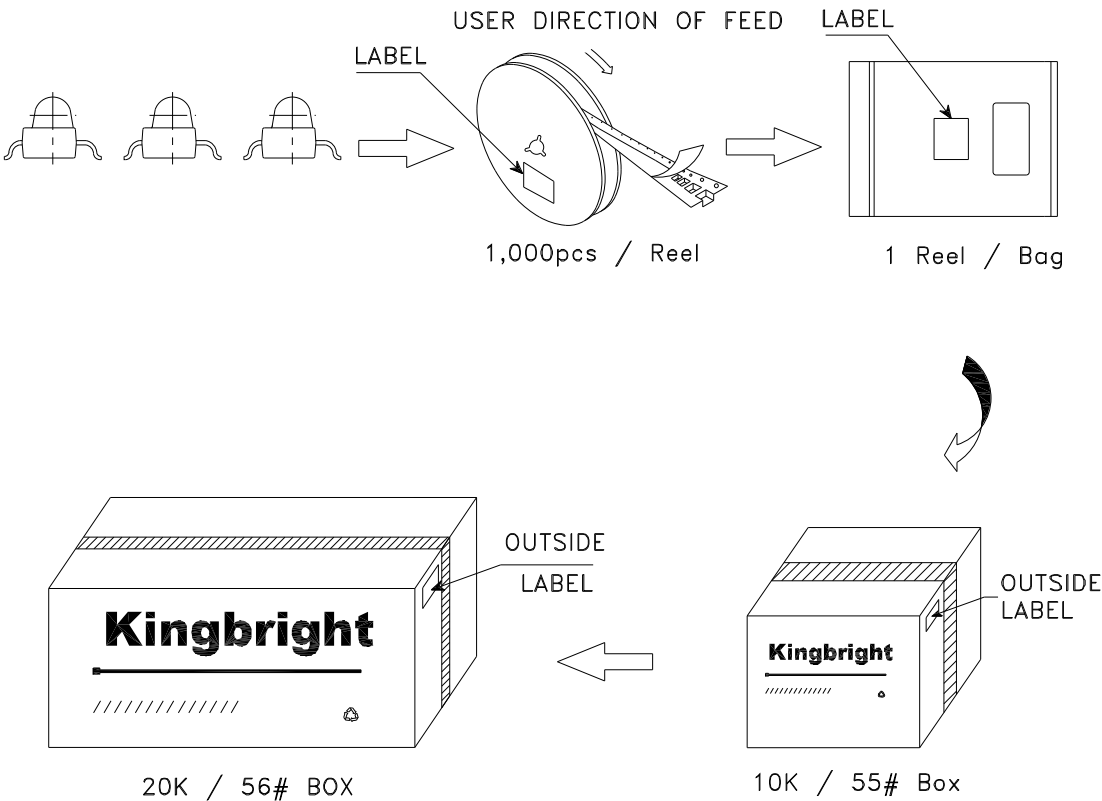


### Tape Specifications (Units : mm)



## PACKING & LABEL SPECIFICATIONS

AM2520SURC03



|                                                                                                                      |                                               |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Kingbright</b>                                                                                                    |                                               |
| P/NO: AM2520xxx03                                                                                                    |                                               |
| QTY: 1,000 pcs                                                                                                       | Q.C. <div>Q C<br/>xx xx xxxx<br/>PASSED</div> |
| S/N: XXXX                                                                                                            |                                               |
| CODE: XXX                                                                                                            |                                               |
| LOT NO:                                                                                                              |                                               |
| <br>xxxxxxxxxxxxxxxxxxxxxxxxxxxx |                                               |
| RoHS Compliant                                                                                                       |                                               |

## Looking for pricing, stock, or lifecycle information?

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