

KA-5060SURC-G

HYPER RED

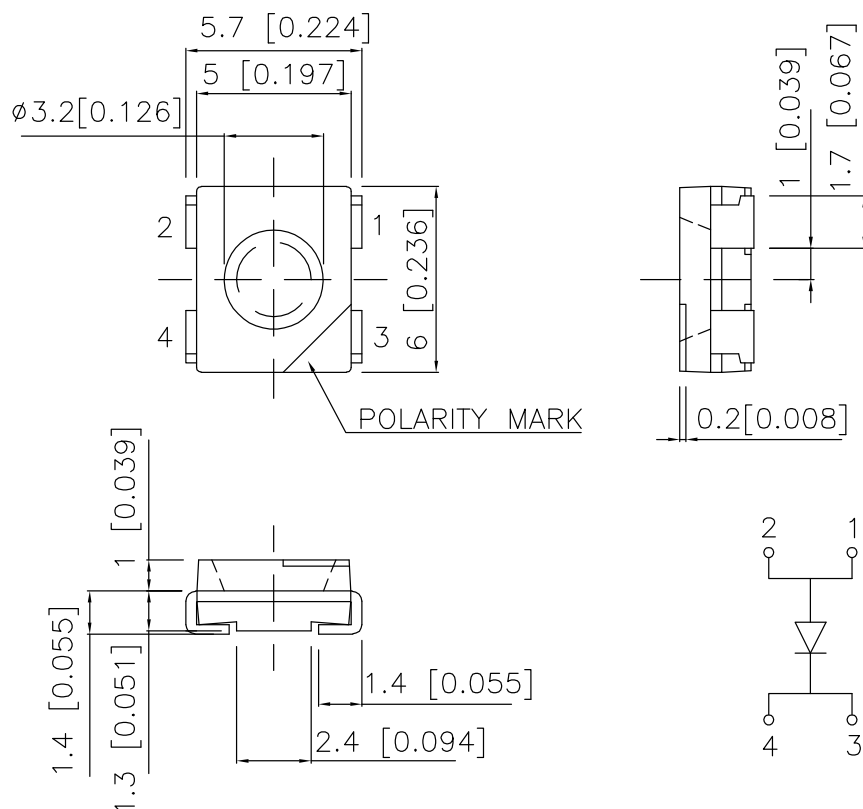
### Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE : 500PCS / REEL.
- RoHS COMPLIANT.

### Description

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

### Package Dimensions



## Selection Guide

| Part No.      | Dice                | Lens Type   | Iv (mcd)<br>@ 50mA |      | Viewing<br>Angle |
|---------------|---------------------|-------------|--------------------|------|------------------|
|               |                     |             | Min.               | Typ. | 2θ1/2            |
| KA-5060SURC-G | HYPER RED (InGaAlP) | WATER CLEAR | 480                | 750  | 100°             |

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

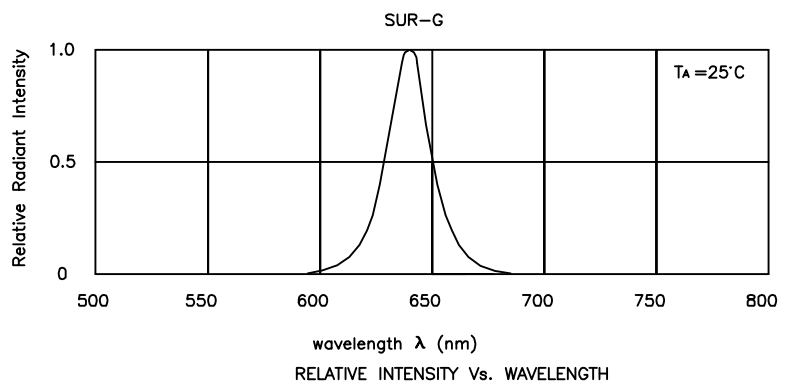
| Symbol | Parameter                | Device    | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|-----------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Hyper Red | 640  |      | nm    | IF=20mA         |
| λD     | Dominant Wavelength      | Hyper Red | 630  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Hyper Red | 22   |      | nm    | IF=20mA         |
| C      | Capacitance              | Hyper Red | 45   |      | pF    | VF=0V;f=1MHz    |
| VF     | Forward Voltage          | Hyper Red | 1.9  | 2.5  | V     | IF=20mA         |
| IR     | Reverse Current          | Hyper Red |      | 10   | uA    | VR = 5V         |

## Absolute Maximum Ratings at TA=25°C

| Parameter                     | Hyper Red      | Units |
|-------------------------------|----------------|-------|
| Power dissipation             | 125            | mW    |
| DC Forward Current            | 50             | mA    |
| Peak Forward Current [1]      | 150            | mA    |
| Reverse Voltage               | 5              | V     |
| Operating/Storage Temperature | -40°C To +85°C |       |

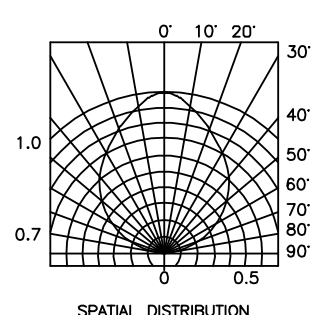
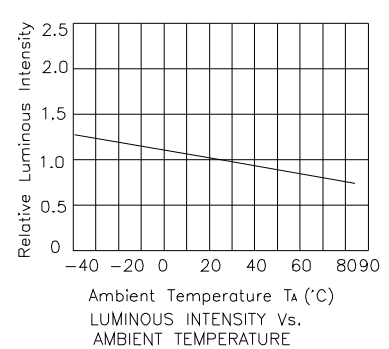
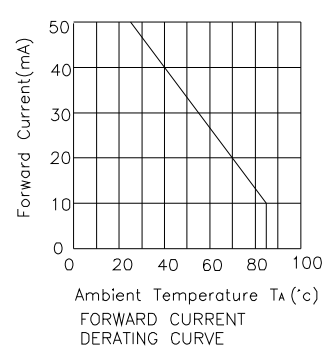
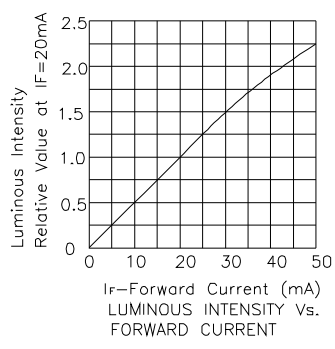
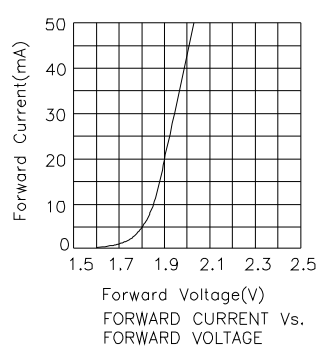
Note:

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



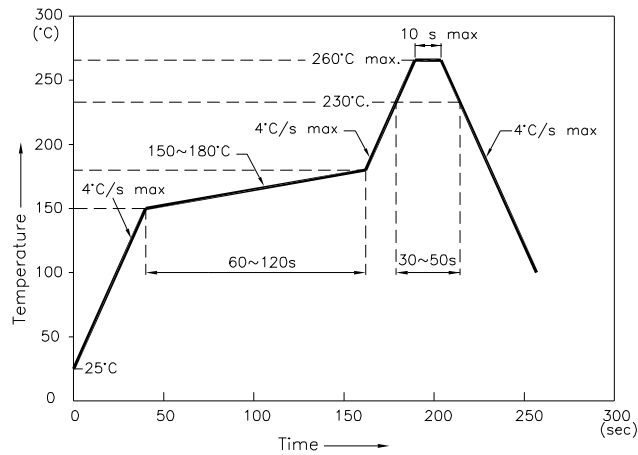
**Hyper Red**

**KA-5060SURC-G**



## KA-5060SURC-G

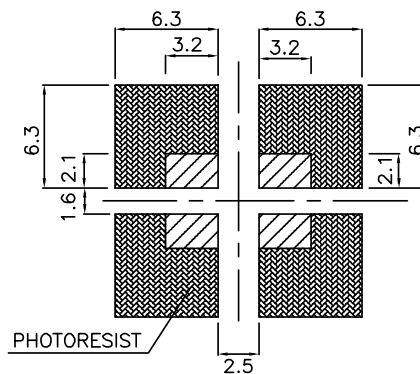
Reflow Soldering Profile For Lead-free SMT Process.



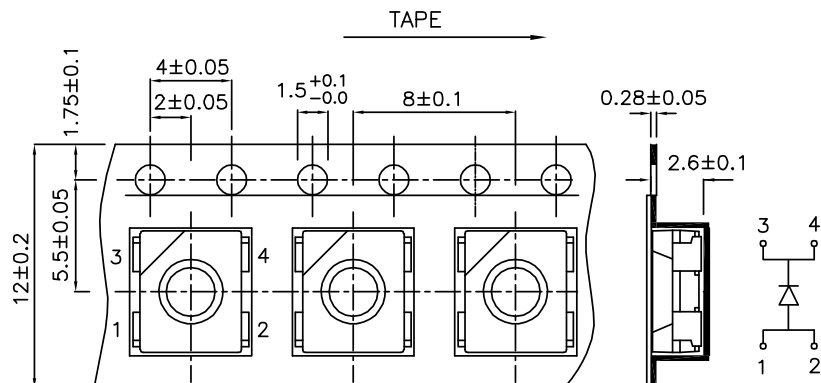
### NOTES:

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)



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

Note: Accuracy may depend on the sorting parameters.