

PRELIMINARY SPEC

KPHHS-1005LSURCK

HYPER RED

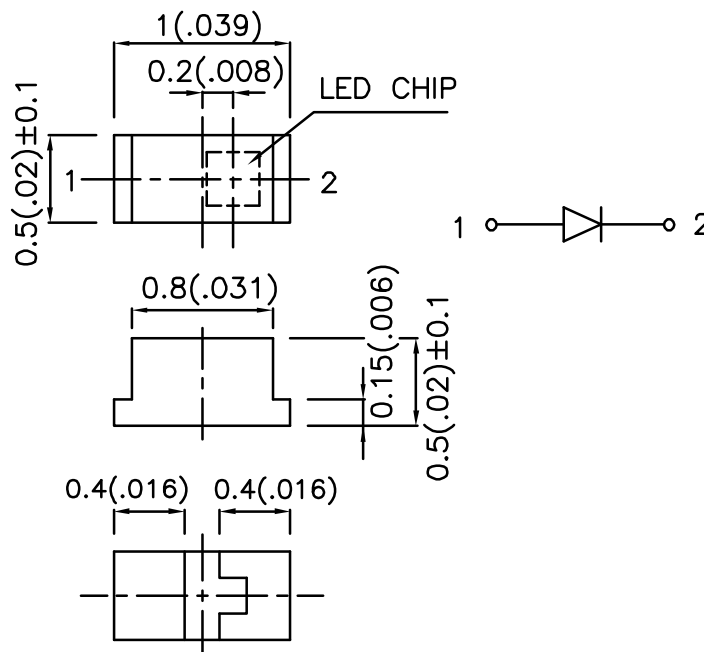
### Features

- 1.0mmX0.5mm SMT LED, 0.5mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- LOW CURRENT IF=2mA OPERATING.

### Description

The Hyper Red 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 ±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>@ 2mA |      | Viewing<br>Angle |
|------------------|----------------------|-------------|-------------------|------|------------------|
|                  |                      |             | Min.              | Typ. | 2θ1/2            |
| KPHHS-1005LSURCK | HYPHER RED (InGaAlP) | WATER CLEAR | 3                 | 8    | 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

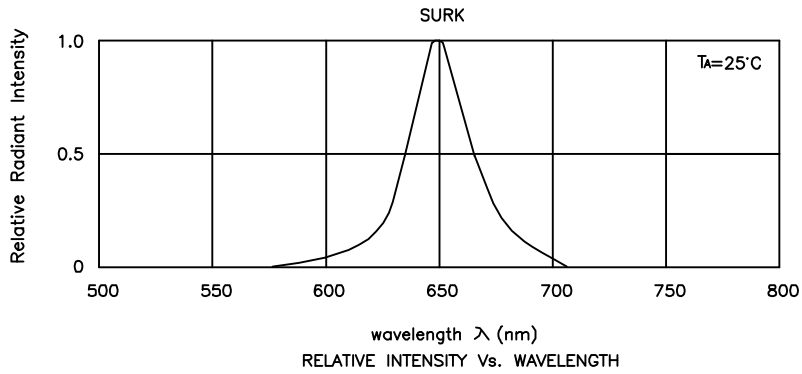
| Symbol                | Parameter                | Device    | Typ. | Max. | Units | Test Conditions           |
|-----------------------|--------------------------|-----------|------|------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Hyper Red | 650  |      | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$           | Dominate Wavelength      | Hyper Red | 635  |      | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Hyper Red | 28   |      | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | Hyper Red | 35   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>        | Forward Voltage          | Hyper Red | 1.95 | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | All       |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at TA=25°C

| Parameter                       | Hyper Red      | Units |
|---------------------------------|----------------|-------|
| Power dissipation               | 170            | mW    |
| DC Forward Current              | 30             | mA    |
| Peak Forward Current [1]        | 185            | mA    |
| Reverse Voltage                 | 5              | V     |
| Operating / storage Temperature | -40°C To +85°C |       |

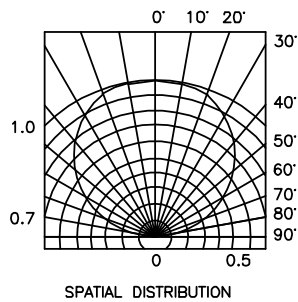
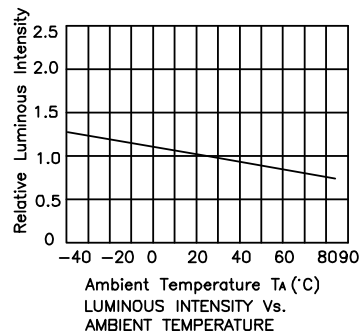
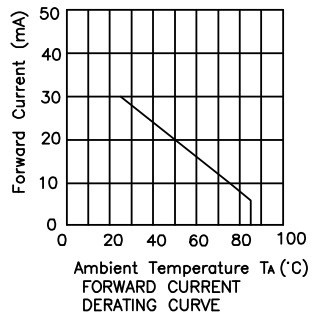
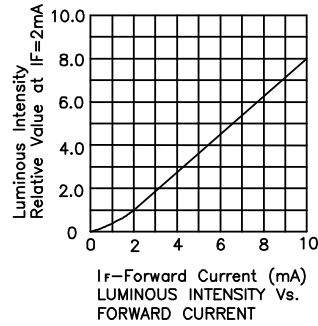
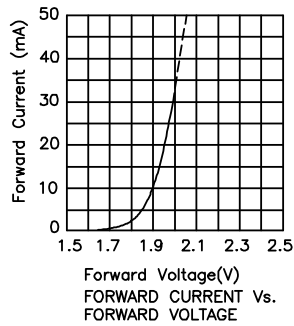
Note:

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



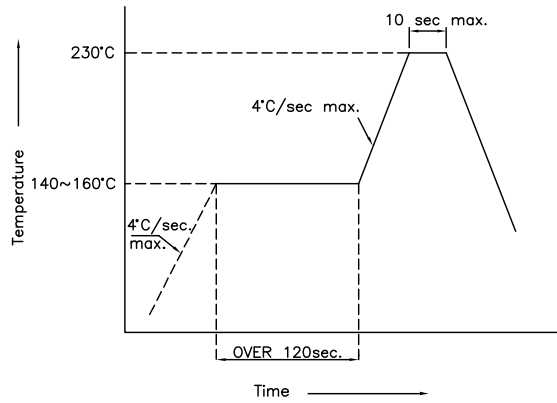
## Hyper Red

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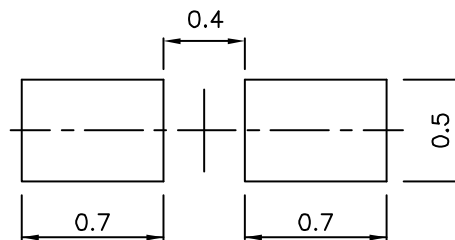


## KPHHS-1005LSURCK SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)

