KP-2012SRC-PRV SUPER BRIGHT RED

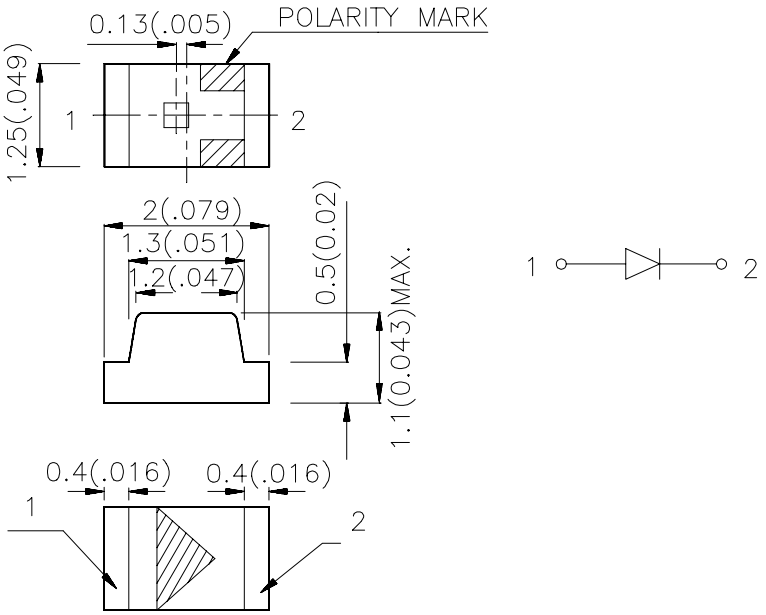
## Features

- ●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.

## Description

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red 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) @ 20 mA | | Viewing Angle |
|---|---|---|---|---|---|
| | | | Min. | Typ. | 2θ1/2 |
| KP-2012SRC-PRV | SUPER BRIGHT RED( GaAlAs ) | WATER CLEAR | 36 | 100 | 120° |

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

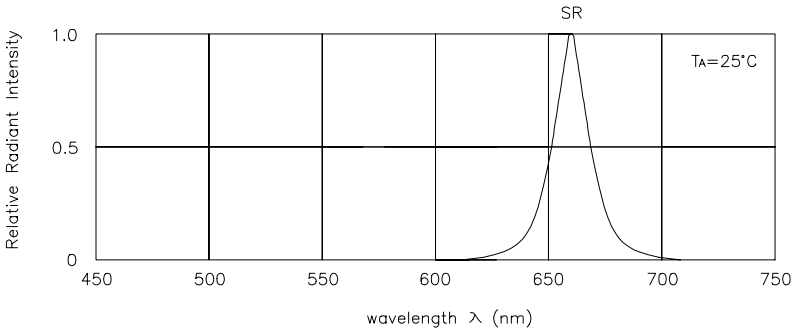
## Electrical / Optical Characteristics at $T_A$=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| λpeak | Peak Wavelength | Super Bright Red | 660 | | nm | $I_F$=20mA |
| λD | Dominate Wavelength | Super Bright Red | 640 | | nm | $I_F$=20mA |
| Δλ1/2 | Spectral Line Half-width | Super Bright Red | 20 | | nm | $I_F$=20mA |
| C | Capacitance | Super Bright Red | 45 | | pF | $V_F$=0V;f=1MHz |
| $V_F$ | Forward Voltage | Super Bright Red | 1.85 | 2.5 | V | $I_F$=20mA |
| $I_R$ | Reverse Current | Super Bright Red | | 10 | uA | $V_R$ = 5V |

## Absolute Maximum Ratings at $T_A$=25°C

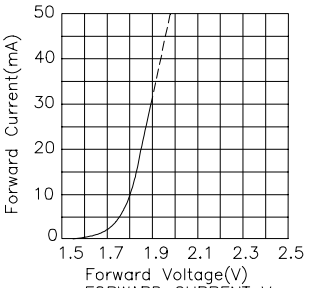
| Parameter | Super Bright Red | Units |
|---|---|---|
| Power dissipation | 100 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 155 | mA |
| Reverse Voltage | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | |

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

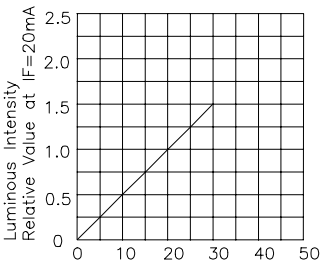


RELATIVE INTENSITY Vs. WAVELENGTH

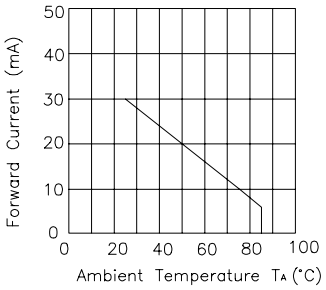
**Super Bright Red KP-2012SRC-PRV**



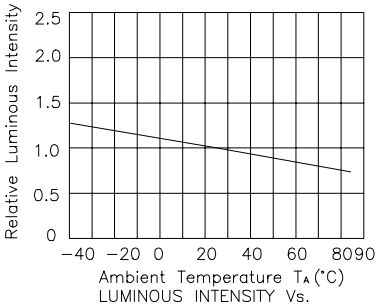
FORWARD CURRENT Vs.
FORWARD VOLTAGE



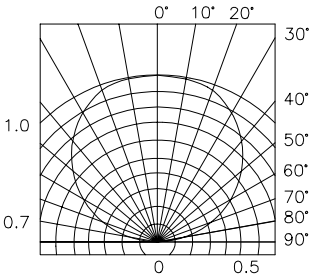
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



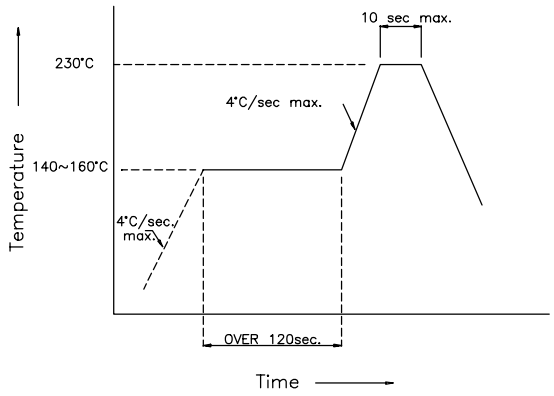
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



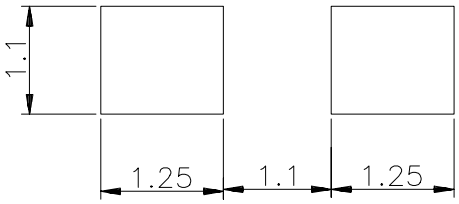
SPATIAL DISTRIBUTION

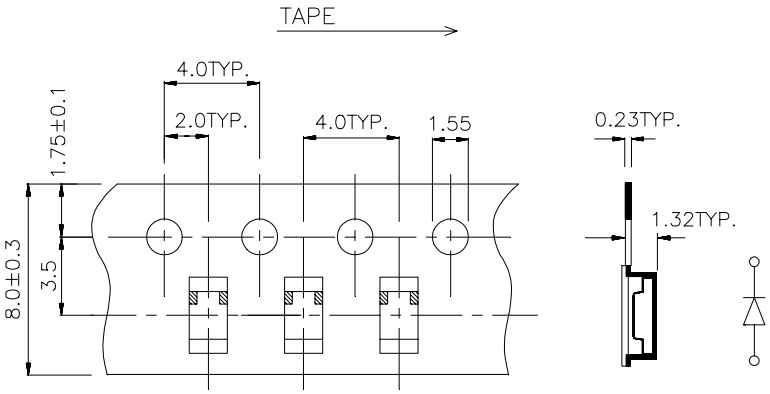
**KP-2012SRC-PRV**
**SMT Reflow Soldering Instructions**

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)**