

KP-23ESGC

HIGH EFFICIENCY RED

SUPER BRIGHT GREEN

### Features

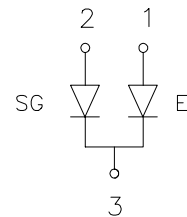
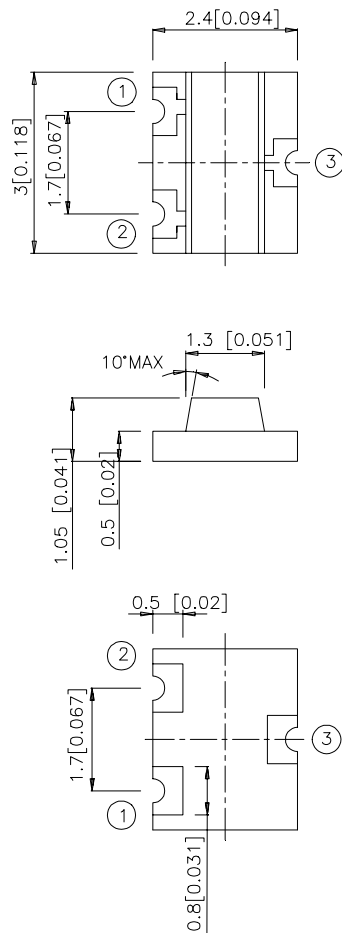
- 3mmx2.4mm SMT LED, 1.05mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.

### Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions



- 1 ANODE RED
- 2 ANODE GREEN
- 3 COMMON CATHODE

#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2$  (0.008") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.  | Dice                            | Lens Type   | Iv (mcd)<br>@ 20 mA |      | Viewing<br>Angle |
|-----------|---------------------------------|-------------|---------------------|------|------------------|
|           |                                 |             | Min.                | Typ. | 2θ1/2            |
| KP-23ESGC | HIGH EFFICIENCY RED (GaAsP/GaP) | WATER CLEAR | 7                   | 20   | 120°             |
|           | SUPER BRIGHT GREEN (GaP)        |             | 4                   | 15   |                  |

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

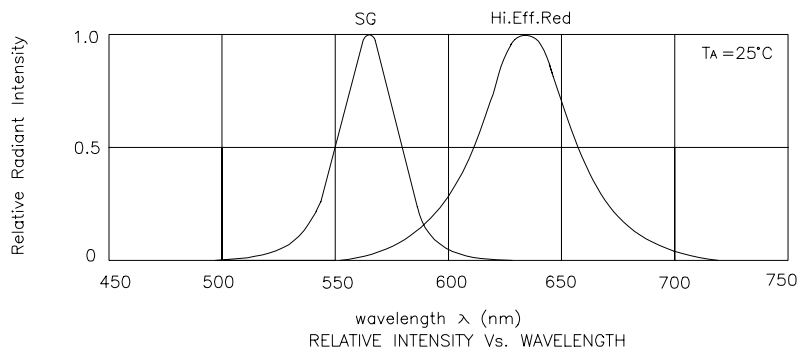
| Symbol            | Parameter                | Device                                    | Typ.       | Max.       | Units | Test Conditions           |
|-------------------|--------------------------|-------------------------------------------|------------|------------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | High Efficiency Red<br>Super Bright Green | 627<br>565 |            | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominate Wavelength      | High Efficiency Red<br>Super Bright Green | 625<br>568 |            | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | High Efficiency Red<br>Super Bright Green | 45<br>30   |            | nm    | I <sub>F</sub> =20mA      |
| C                 | Capacitance              | High Efficiency Red<br>Super Bright Green | 15<br>15   |            | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>    | Forward Voltage          | High Efficiency Red<br>Super Bright Green | 2.0<br>2.2 | 2.5<br>2.5 | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | All                                       |            | 10         | μA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

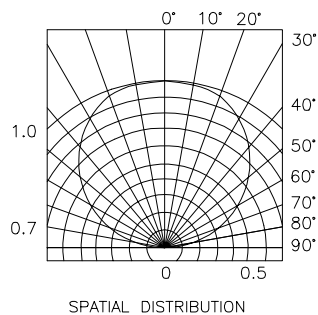
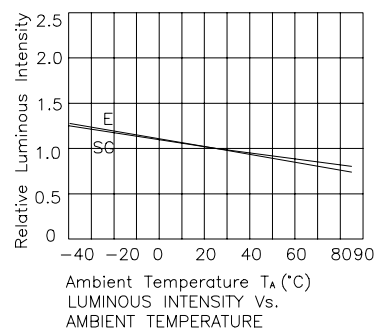
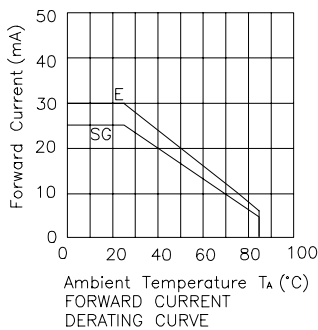
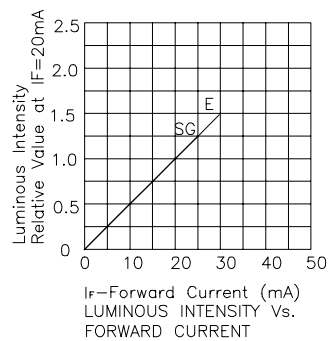
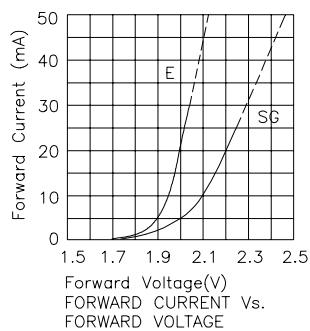
| Parameter                     | High Efficiency Red | Super Bright Green | Units |
|-------------------------------|---------------------|--------------------|-------|
| Power dissipation             | 105                 | 105                | mW    |
| DC Forward Current            | 30                  | 25                 | mA    |
| Peak Forward Current [1]      | 160                 | 140                | mA    |
| Reverse Voltage               | 5                   | 5                  | V     |
| Operating/Storage Temperature | -40°C To +85°C      |                    |       |

Note:

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



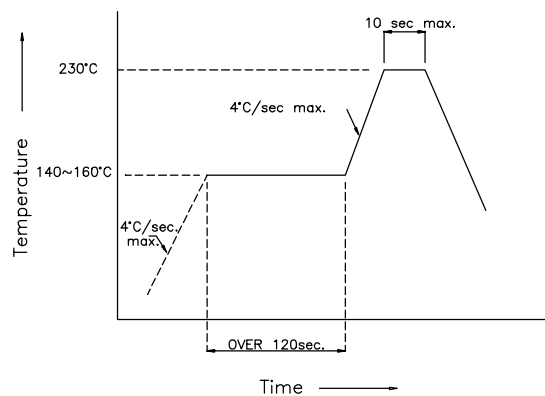
## High Efficiency Red / Super Bright Green KP-23ESGC



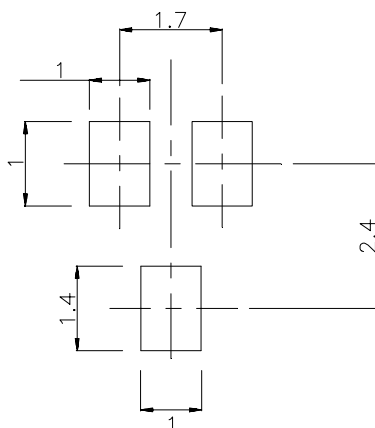
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### SMT Reflow Soldering Instructions

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)

