

KP-2012SF4C

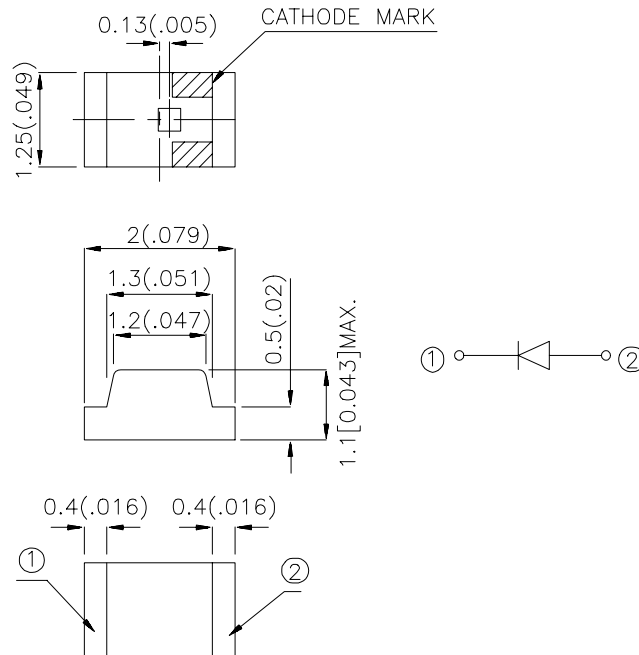
### Features

- BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE.
- 2.0mmx1.25mm SMT LED, 1.1mm THICKNESS.
- HIGH POWER OUTPUT.
- PACKAGE : 2000PCS / REEL.

### Description

SF4 Made with Gallium Aluminum Arsenide Infrared Emitting diodes.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.    | Dice         | Lens Type   | Po (mW/sr)<br>@ 20 mA |      | Viewing<br>Angle |
|-------------|--------------|-------------|-----------------------|------|------------------|
|             |              |             | Min.                  | Typ. | 2θ1/2            |
| KP-2012SF4C | SF4 (GaAlAs) | WATER CLEAR | 0.4                   | 1    | 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<sub>A</sub>=25°C

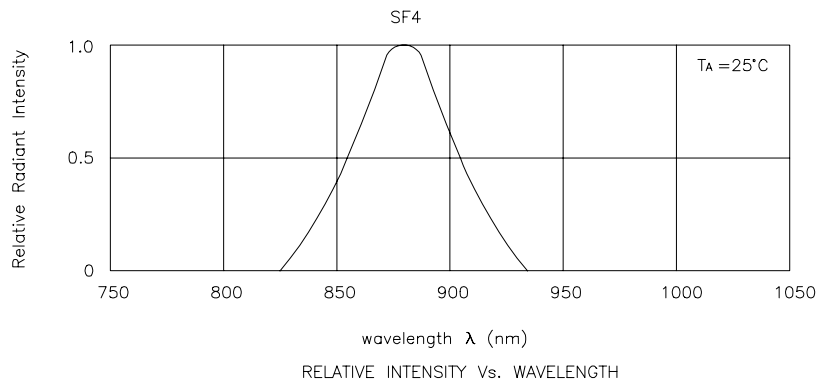
| Parameter                   | P/N | Symbol         | Typ. | Max. | Unit | Condition                  |
|-----------------------------|-----|----------------|------|------|------|----------------------------|
| Forward Voltage             | SF4 | V <sub>F</sub> | 1.3  | 1.6  | V    | I <sub>F</sub> =20mA       |
| Reverse Current             | SF4 | I <sub>R</sub> | -    | 10   | μA   | V <sub>R</sub> =5V         |
| Capacitance                 | SF4 | C              | 90   | -    | pF   | V <sub>F</sub> =0V; f=1MHz |
| Wavelength at peak emission | SF4 | λ <sub>P</sub> | 880  | -    | nm   | I <sub>F</sub> =20mA       |
| Spectral line half-width    | SF4 | Δλ 1/2         | 50   | -    | nm   | I <sub>F</sub> =20mA       |

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

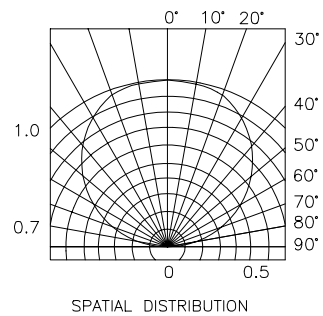
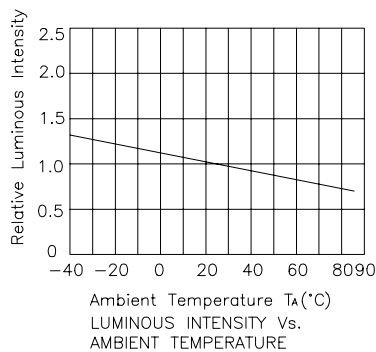
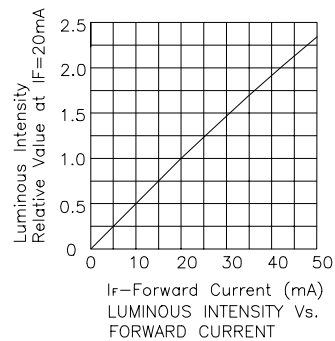
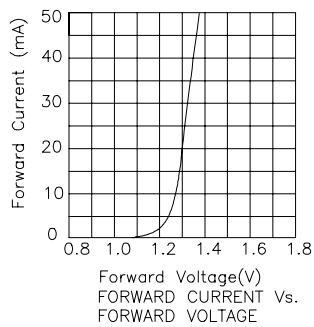
| Parameter               | Symbol           | SF4      | Units |
|-------------------------|------------------|----------|-------|
| Power Dissipation       | P <sub>T</sub>   | 100      | mW    |
| Forward Current         | I <sub>F</sub>   | 50       | mA    |
| Peak Forward Current[1] | i <sub>Fs</sub>  | 1.2      | A     |
| Reverse Voltage         | V <sub>R</sub>   | 5        | V     |
| Operating Temperature   | T <sub>A</sub>   | -40~ +85 | °C    |
| Storage Temperature     | T <sub>STG</sub> | -40~ +85 | °C    |

Note:

1. 1/100 Duty Cycle, 10us Pluse Width.



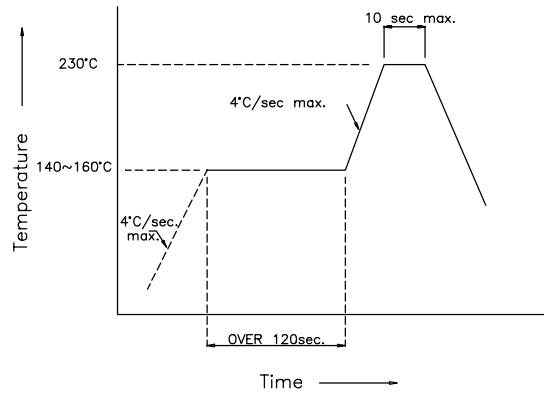
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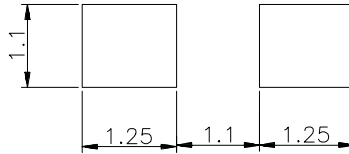
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### SMT Reflow Soldering Instructions

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)

