



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

P/N: KPA-3010PWF-G

WHITE

## Features

- 3.0mmx1.0mm RIGHT ANGLE SMT LED, 2.0mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACK LIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

## Description

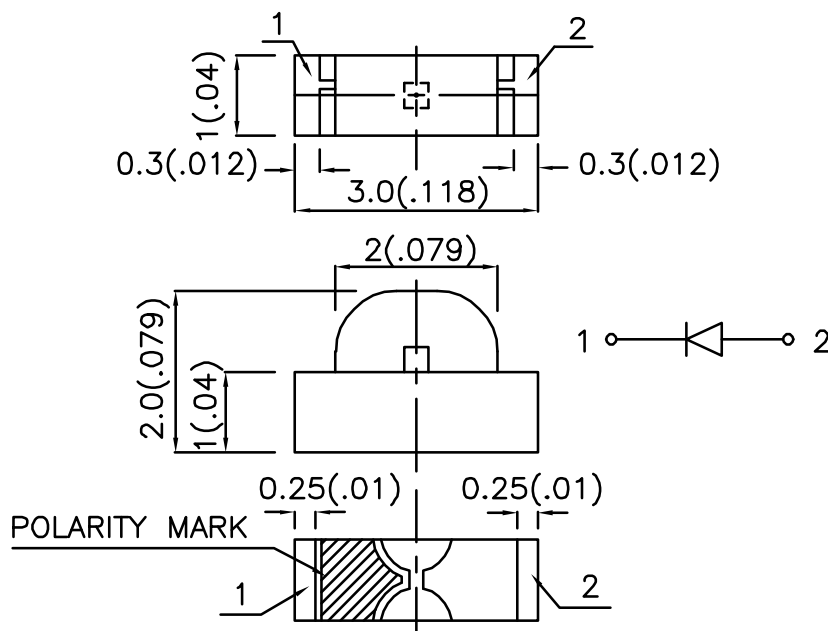
The source color devices are made with InGaN on SiC Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

## Package Dimensions



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.15$  (0.006") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.      | Dice          | Lens Type          | Iv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|---------------|---------------|--------------------|------------------------|------|----------------------|
|               |               |                    | Min.                   | Typ. | 2θ1/2                |
| KPA-3010PWF-G | WHITE (InGaN) | YELLOW FLUORESCENT | 70                     | 150  | 120°                 |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous Intensity / Luminous Flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter                | Device | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|--------|------|------|-------|-----------------|
| VF [1] | Forward Voltage          | White  | 3.6  | 4.3  | V     | IF=20mA         |
| IR     | Reverse Current          | White  |      | 10   | uA    | VR = 5V         |
| X [2]  | Chromaticity Coordinates | White  | 0.33 |      |       |                 |
| Y [2]  |                          |        | 0.34 |      |       |                 |
| C      | Capacitance              | White  | 110  |      | pF    | VF=0V;f=1MHz    |

Notes:

1. Forward Voltage: +/-0.1V.
2. Chromaticity Coordinates X, Y: +/-0.01.

## Absolute Maximum Ratings at TA=25°C

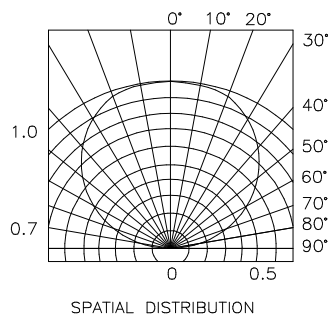
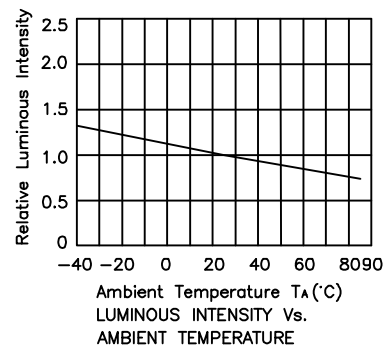
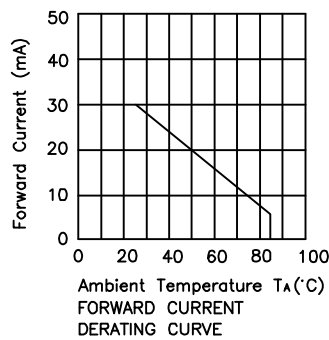
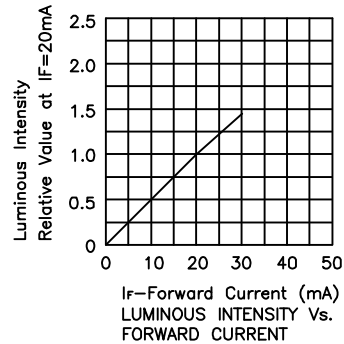
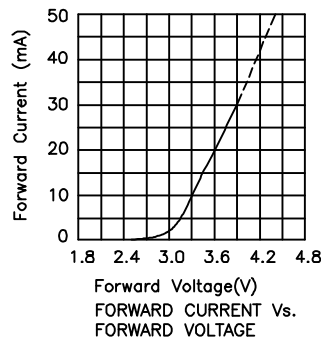
| Parameter                | White          | Units |
|--------------------------|----------------|-------|
| Power dissipation        | 129            | mW    |
| DC Forward Current       | 30             | mA    |
| Peak Forward Current [1] | 150            | mA    |
| Reverse Voltage          | 5              | V     |
| Operating Temperature    | -40°C To +85°C |       |

Note:

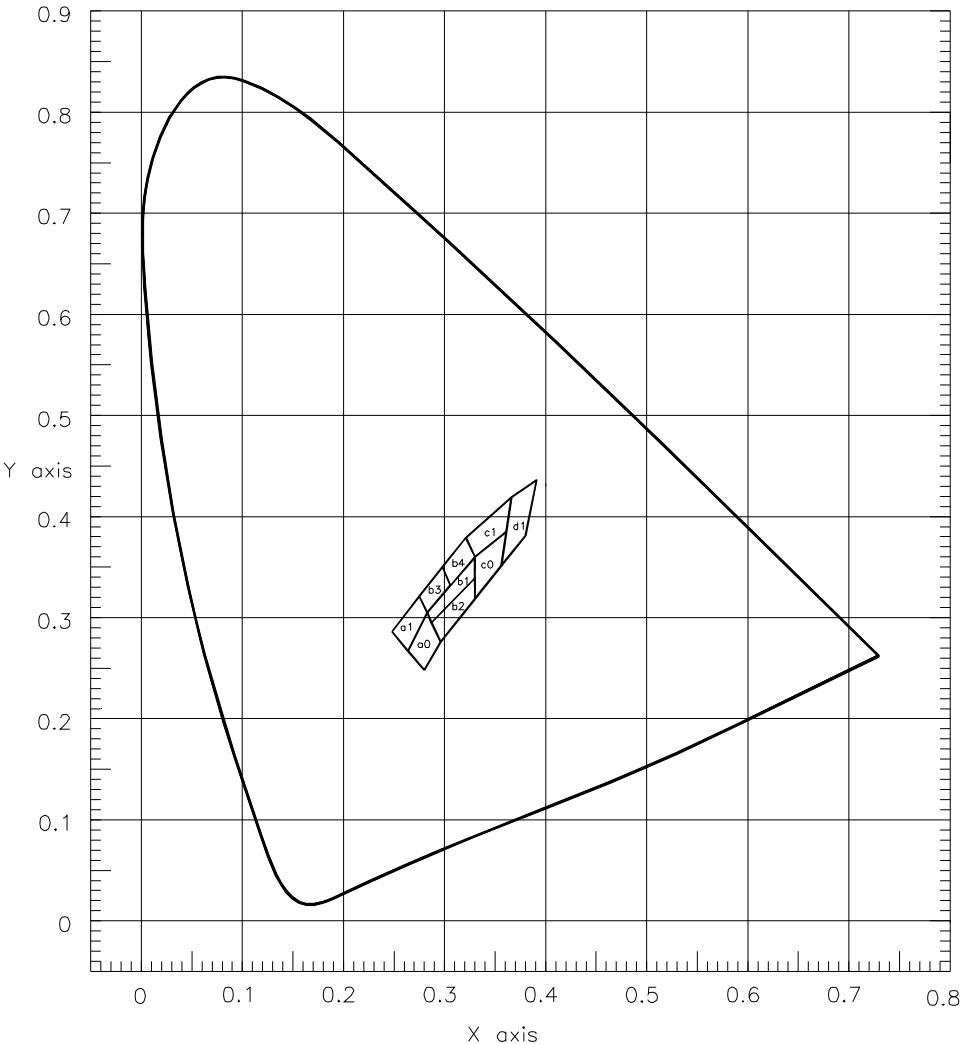
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

White

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| a1 |       |       |       |       |
|----|-------|-------|-------|-------|
| X  | 0.248 | 0.275 | 0.283 | 0.264 |
| Y  | 0.286 | 0.321 | 0.305 | 0.267 |
| b1 |       |       |       |       |
| X  | 0.283 | 0.330 | 0.330 | 0.287 |
| Y  | 0.305 | 0.360 | 0.339 | 0.295 |
| c1 |       |       |       |       |
| X  | 0.321 | 0.366 | 0.361 | 0.330 |
| Y  | 0.379 | 0.419 | 0.385 | 0.360 |

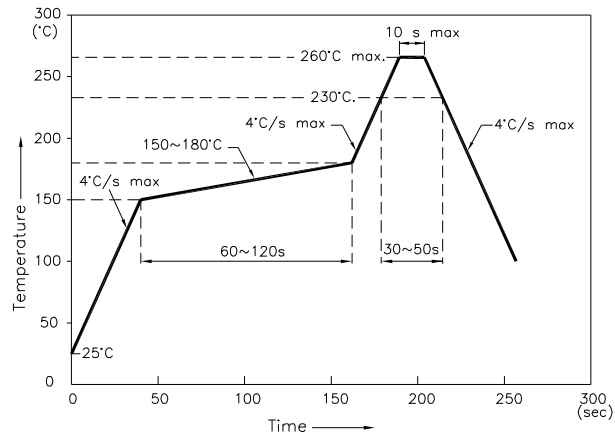
| a0 |       |       |       |       |
|----|-------|-------|-------|-------|
| X  | 0.264 | 0.283 | 0.296 | 0.280 |
| Y  | 0.267 | 0.305 | 0.276 | 0.248 |
| b2 |       |       |       |       |
| X  | 0.287 | 0.330 | 0.330 | 0.296 |
| Y  | 0.295 | 0.339 | 0.318 | 0.276 |
| c0 |       |       |       |       |
| X  | 0.330 | 0.361 | 0.356 | 0.330 |
| Y  | 0.360 | 0.385 | 0.351 | 0.318 |

| b3 |       |       |       |       |
|----|-------|-------|-------|-------|
| X  | 0.275 | 0.298 | 0.306 | 0.283 |
| Y  | 0.321 | 0.350 | 0.332 | 0.305 |
| b4 |       |       |       |       |
| X  | 0.298 | 0.321 | 0.330 | 0.306 |
| Y  | 0.350 | 0.379 | 0.360 | 0.332 |
| d1 |       |       |       |       |
| X  | 0.366 | 0.391 | 0.380 | 0.356 |
| Y  | 0.419 | 0.436 | 0.381 | 0.351 |

Ta=25°, IF=20mA      Measurement Uncertainty of the Color Coordinates:±0.01

## KPA-3010PWF-G

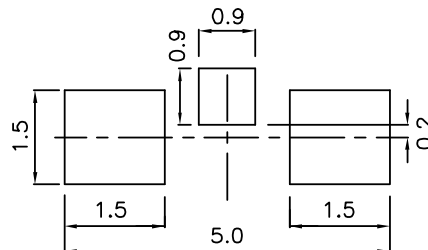
Reflow Soldering Profile For Lead-free SMT Process.



### 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; Tolerance: $\pm 0.1$ )



### Tape Specifications (Units : mm)

