KPK-3020PBC BLUE

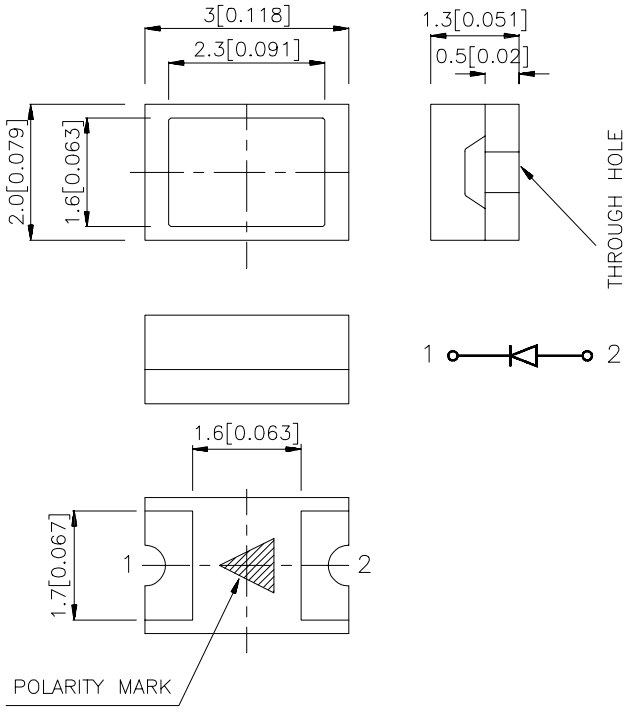
## Features

- 3.0mmX2.0mm SMT LED, 1.3mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE:2000PCS/REEL

## Description

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

## Package Dimensions




Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is±0.2(0.0079") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20 mA | | Viewing Angle |
|---|---|---|---|---|---|
| | | | Min. | Typ. | 2θ1/2 |
| KPK-3020PBC | BLUE( InGaN) | WATER CLEAR | 20 | 60 | 120° |

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

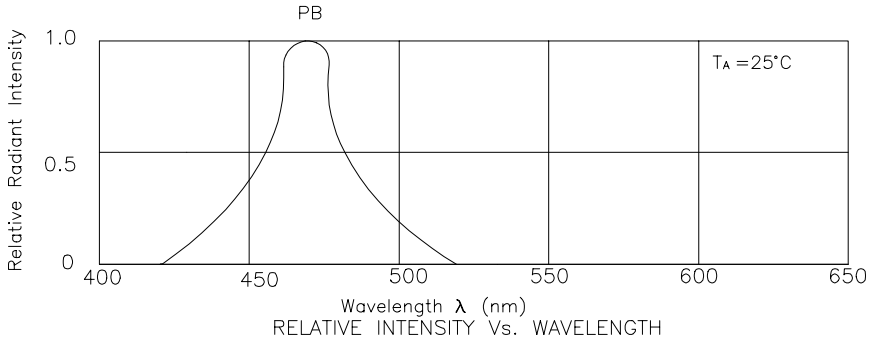
## Electrical / Optical Characteristics at $T_A$=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| λpeak | Peak Wavelength | Blue | 468 | | nm | IF=20mA |
| λ D | Dominate Wavelength | Blue | 465 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Halfwidth | Blue | 25 | | nm | IF=20mA |
| C | Capacitance | Blue | 65 | | pF | VF=0V;f=1MHz |
| $V_F$ | Forward Voltage | Blue | 3.65 | 4.2 | V | IF=20mA |
| $I_R$ | Reverse Current | Blue | | 10 | uA | VR = 5V |

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

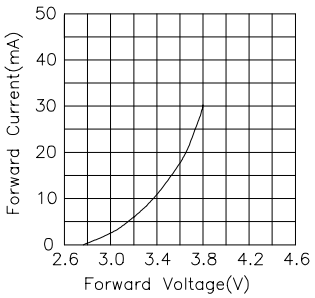
| Parameter | Blue | Units |
|---|---|---|
| Power dissipation | 102 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 160 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -20°C To +80°C | |
| Storage Temperature | -30°C To +85°C | |

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

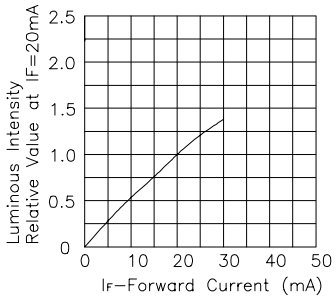


RELATIVE INTENSITY Vs. WAVELENGTH

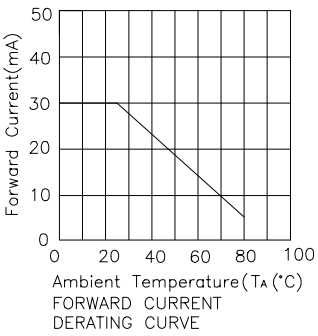
**Blue KPK-3020PBC**



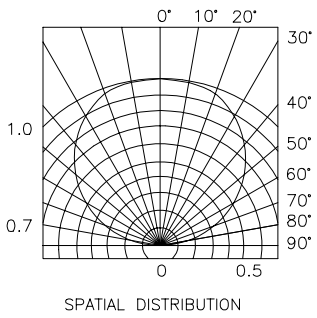
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



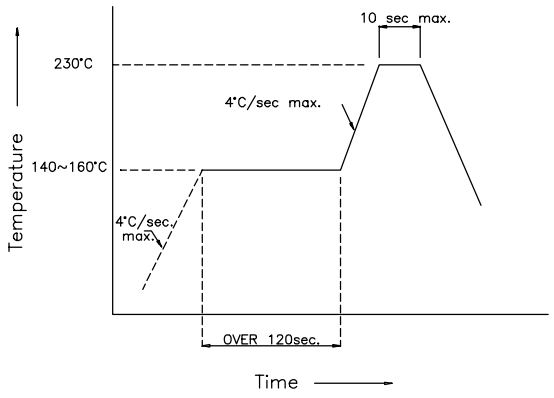
FORWARD CURRENT
DERATING CURVE



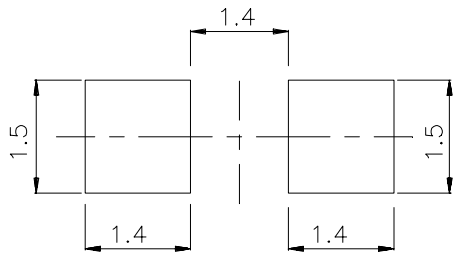
SPATIAL DISTRIBUTION

**KPK-3020PBC**
**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)**

