



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

WP7113MBD

BLUE

### Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 3/4 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- RoHS COMPLIANT.

### Description

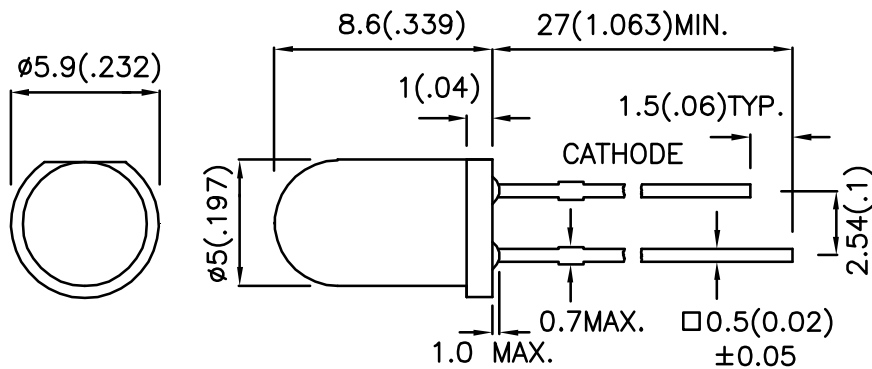
The Blue source color devices are made with GaN on SiC Light Emitting Diode.

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  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. 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            |
| WP7113MBD | BLUE (GaN) | BLUE DIFFUSED | 36                  | 60   | 20°              |

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 TA=25°C

| Symbol            | Parameter                | Device | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|--------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Blue   | 430  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominant Wavelength      | Blue   | 466  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | Blue   | 60   |      | nm    | I <sub>F</sub> =20mA      |
| C                 | Capacitance              | Blue   | 100  |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>    | Forward Voltage          | Blue   | 3.8  | 4.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | Blue   |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at TA=25°C

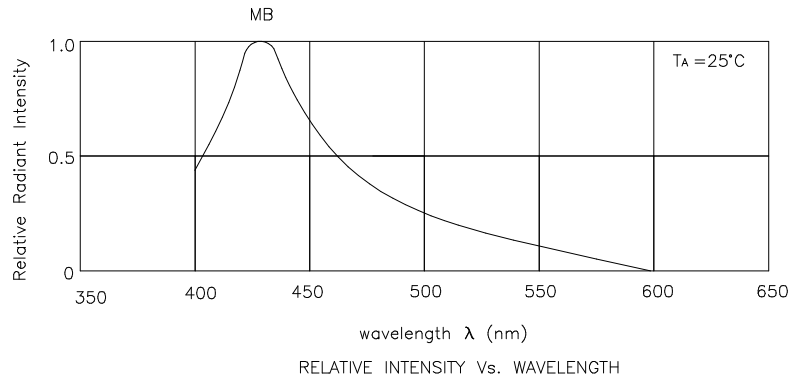
| Parameter                       | Blue                | Units |
|---------------------------------|---------------------|-------|
| Power dissipation               | 105                 | mW    |
| DC Forward Current              | 30                  | mA    |
| Peak Forward Current [1]        | 150                 | mA    |
| Reverse Voltage                 | 5                   | V     |
| Operating / Storage Temperature | -40°C To +85°C      |       |
| Lead Solder Temperature [2]     | 260°C For 3 Seconds |       |
| Lead Solder Temperature [3]     | 260°C For 5 Seconds |       |

Notes:

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

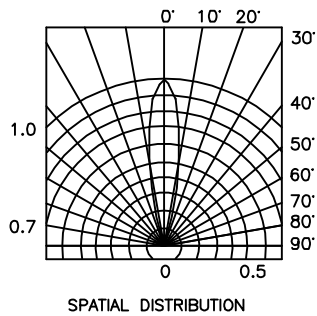
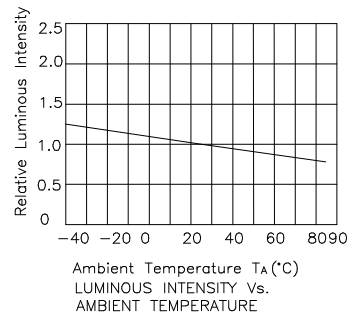
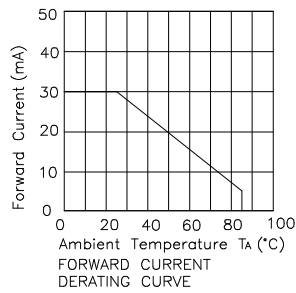
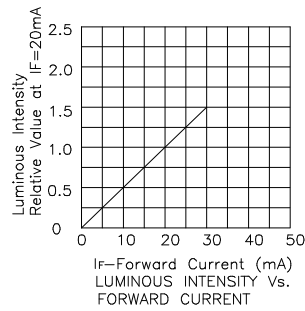
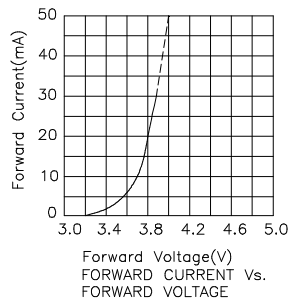
2. 2mm below package base.

3. 5mm below package base.



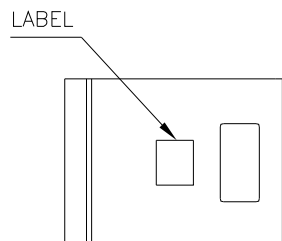
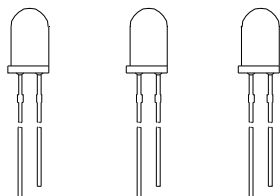
## Blue

## WP7113MBD



## PACKING & LABEL SPECIFICATIONS

WP7113MBD

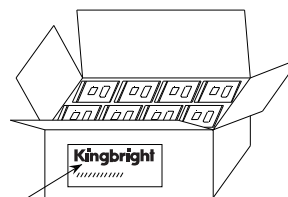


500PCS / BAG



20K / 9# BOX

OUTSIDE LABEL



OUTSIDE LABEL

10K / 5# BOX

|                     |                       |
|---------------------|-----------------------|
| <b>Kingbright</b>   |                       |
| Q.C.                | OC                    |
| TYPE NO : WP7113XXX | xxx xx xxxx<br>PASSED |
| QUANTITY : 500 pcs  | Date                  |
| S/N : XXX           | CODE: XX              |
| LOT NO :            | RoHS Compliant        |

### Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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