

## T-1 3/4 (5mm) SOLID STATE LAMP



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.

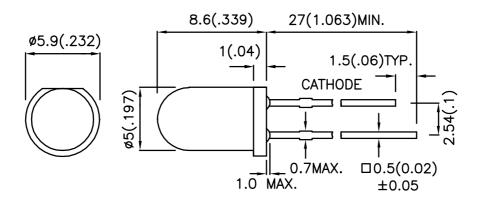
Static electricity and surge damage the LEDS.

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:

- All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- Lead spacing is measured where the leads emerge from the package.
- 4. Specifications are subject to change without notice.

 SPEC NO: DSAF2410
 REV NO: V.1
 DATE: APR/19/2005
 PAGE: 1 OF4

 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: Y.W.WANG
 ERP:1101005103

# **Kingbright**

## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) @ 20 mA		Viewing Angle
			Min.	Тур.	201/2
WP7113MBD	BLUE (GaN)	BLUE DIFFUSED	36	60	20°

#### Note

# Electrical / Optical Characteristics at Ta=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	430		nm	I <sub>F</sub> =20mA
λD	Dominant Wavelength	Blue	466		nm	I <sub>F</sub> =20mA
Δλ1/2	Spectral Line Half-width	Blue	60		nm	I <sub>F</sub> =20mA
С	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	$V_R = 5V$

## 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		

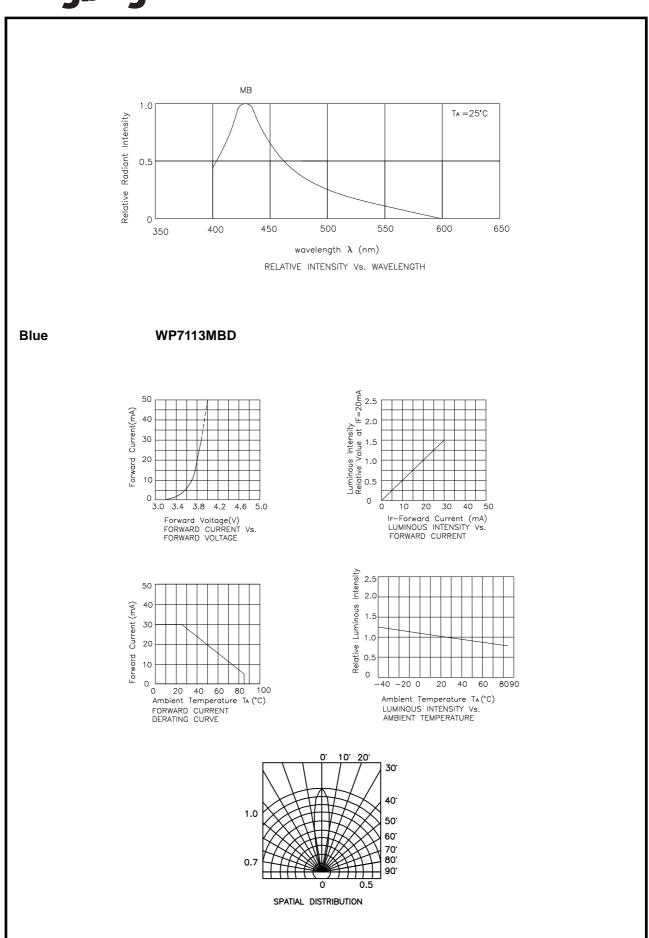
### Notes:

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

SPEC NO: DSAF2410 REV NO: V.1 DATE: APR/19/2005 PAGE: 2 OF4
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: Y.W.WANG ERP:1101005103

 $<sup>1.\,\</sup>theta1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

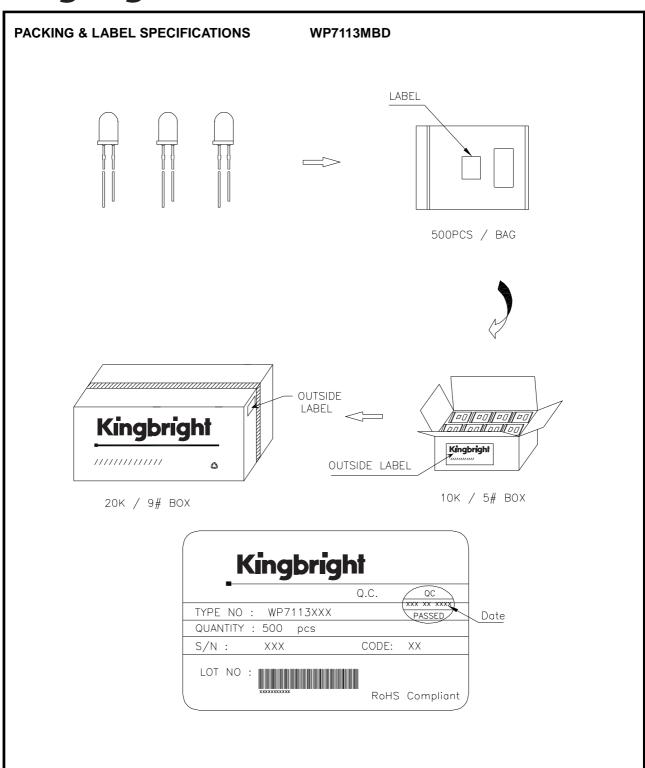
# **Kingbright**



 SPEC NO: DSAF2410
 REV NO: V.1
 DATE: APR/19/2005
 PAGE: 3 OF4

 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: Y.W.WANG
 ERP:1101005103

# **Kingbright**



## 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.

 SPEC NO: DSAF2410
 REV NO: V.1
 DATE: APR/19/2005
 PAGE: 4 OF4

 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: Y.W.WANG
 ERP:1101005103