

Kingbright

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

PRELIMINARY SPEC

Part Number: WP7083PBD/Z

BLUE



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- I.C. COMPATIBLE.
- RoHS COMPLIANT.

Description

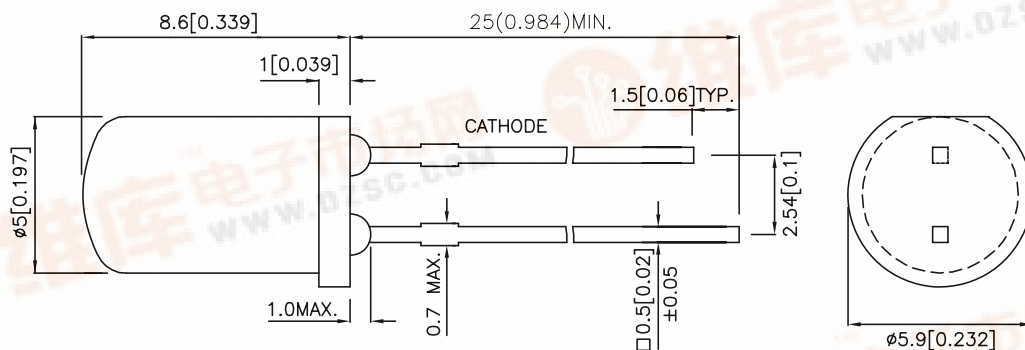
The Blue source color devices are made with InGaN Light Emitting Diode.

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 ± 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) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP7083PBD/Z	Blue (InGaN)	BLUE DIFFUSED	280	500	60°

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
λ _{peak}	Peak Wavelength	Blue	458		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Blue	465		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Blue	22		nm	I _F =20mA
C	Capacitance	Blue	110		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Blue	3.2	3.7	V	I _F =20mA
I _R	Reverse Current	Blue		10	uA	V _R = 5V

Notes:

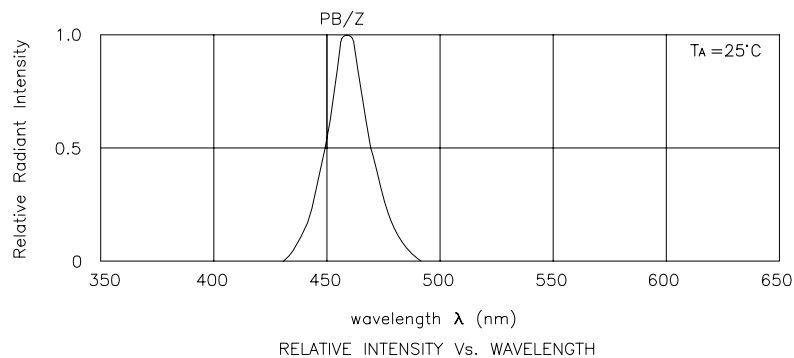
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Units
Power dissipation	111	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	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	

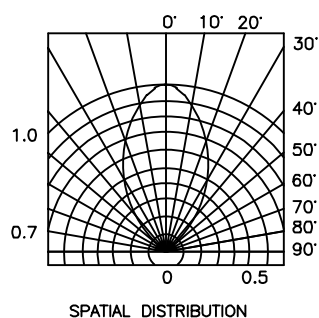
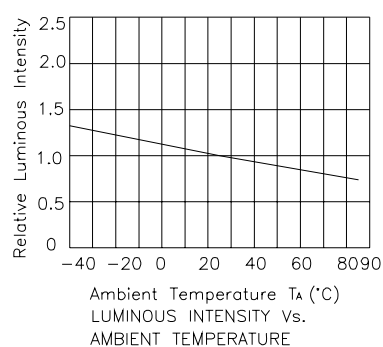
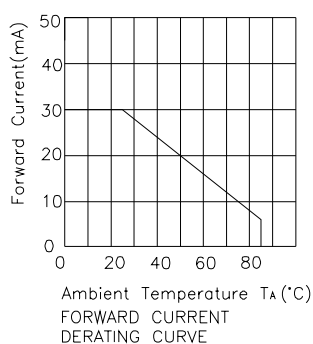
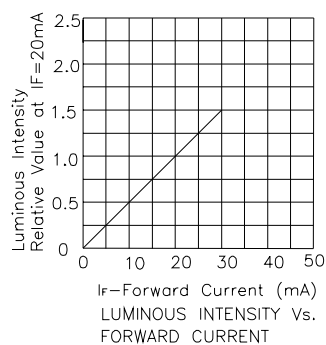
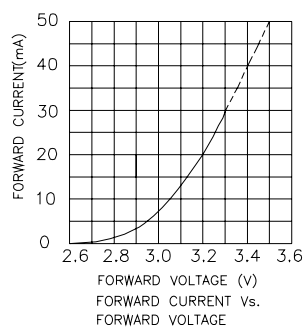
Notes:

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



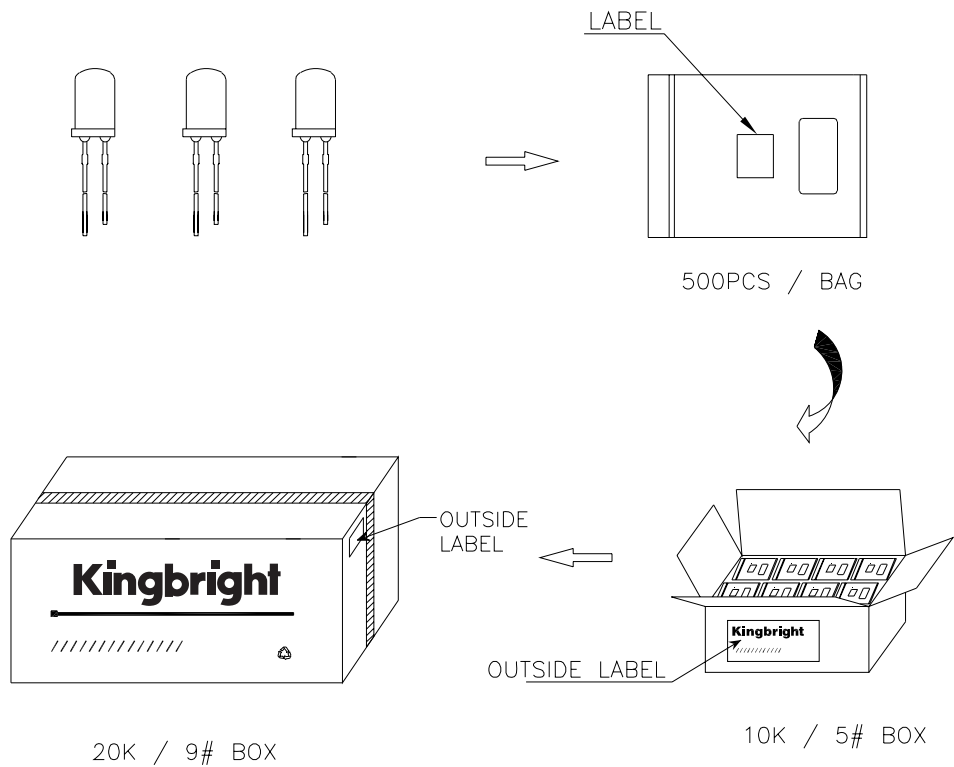
Blue

WP7083PBD/Z



PACKING & LABEL SPECIFICATIONS

WP7083PBD/Z



Kingbright	
Q.C.	
TYPE NO : WP7083xxx	
QUANTITY : 500 pcs	
S/N : XXX	CODE: XX
LOT NO  xxxxxxxxxx	
RoHS Compliant	