

### PRELIMINARY SPEC

Part Number: WP53BR12.7QWC/D

White



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

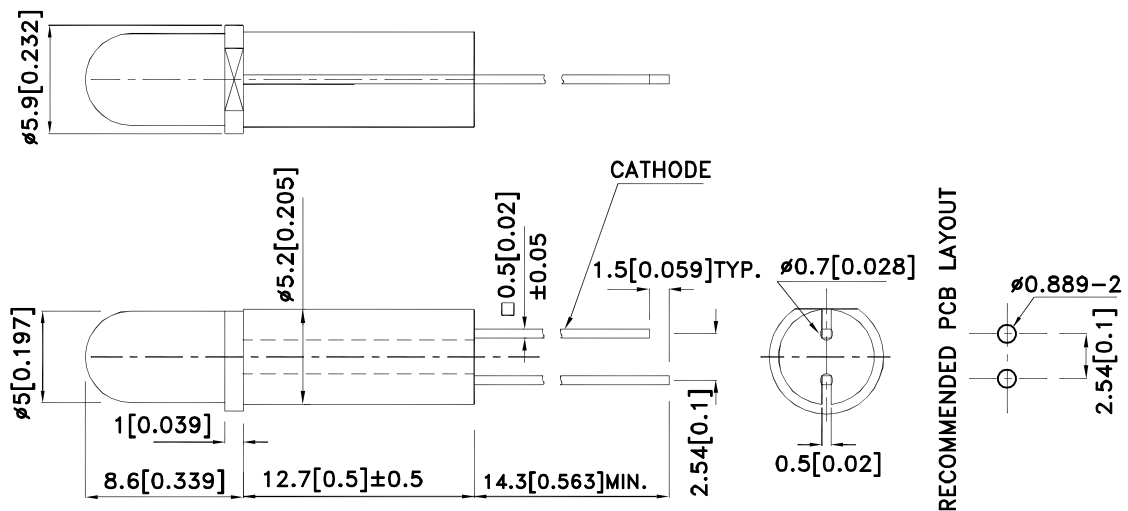
### Features

- LED firmly held by spacer-no additional fixturing or glueing necessary.
- Suitable for back panel illumination,circuit board indicator, LED indicator.
- Housing UL rating: 94V-0.
- Housing material: type 66 nylon.
- RoHS compliant.

### Description

The source color devices are made with AlGaInN on Sapphire 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) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP53BR12.7QWC/D	White (AlGaInN)	WATER CLEAR	1200	2500	20°

Notes:

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

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
V <sub>F</sub> [1]	Forward Voltage	White	3.3	4.0	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	White		10	uA	V <sub>R</sub> = 5V
x [2]	Chromaticity Coordinates	White	0.31			
y [2]			0.31			
C	Capacitance	White	100		pF	V <sub>F</sub> =0V;f=1MHz

Notes:

- Forward Voltage: +/-0.1V.
- Measurement Tolerance Of The Chromaticity Coordinates Is ±0.02.

## Absolute Maximum Ratings at TA=25°C

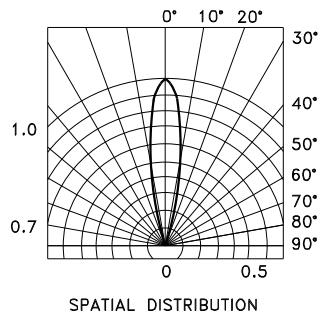
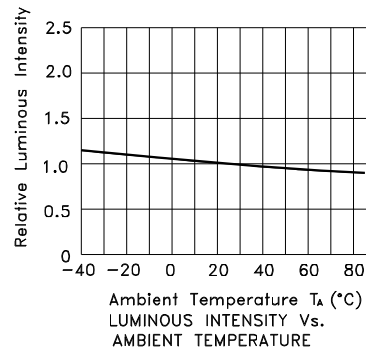
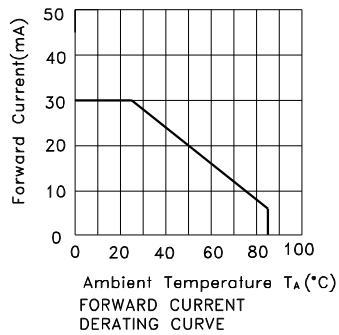
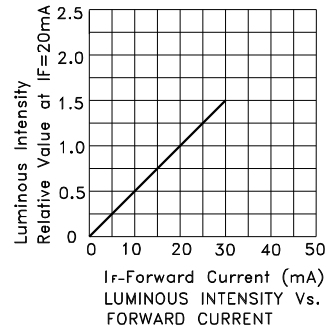
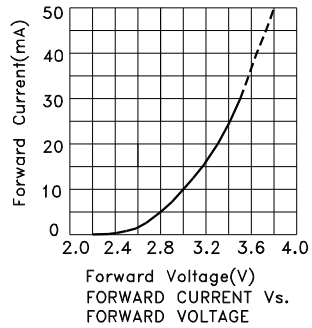
Parameter	White	Units
Power dissipation	120	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

Notes:

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

White

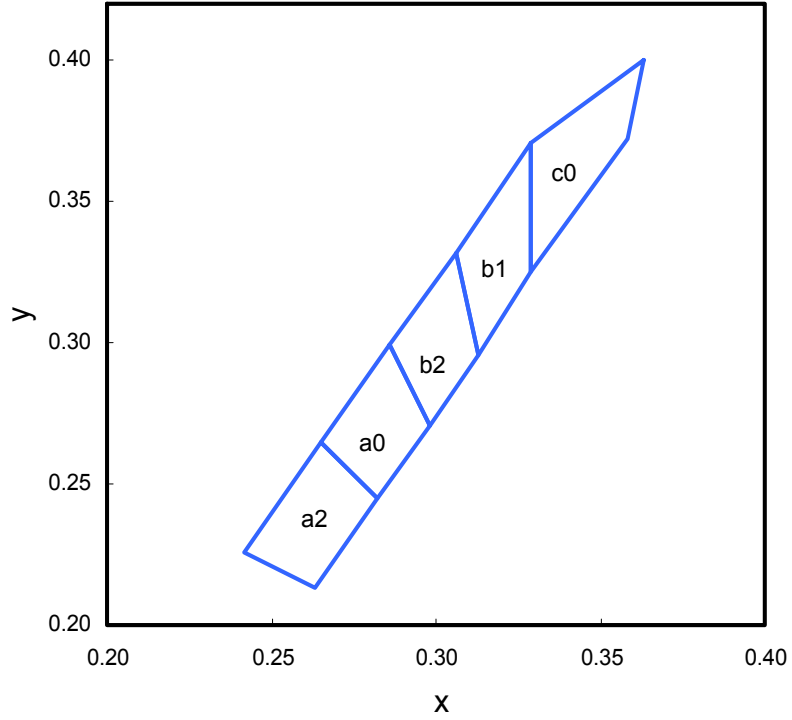
WP53BR12.7QWC/D



White

WP53BR12.7QWC/D

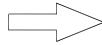
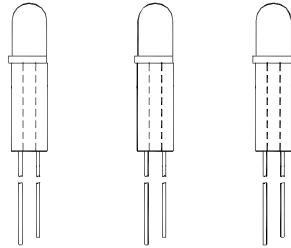
White CIE



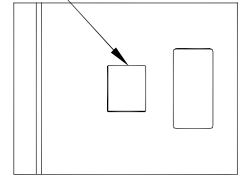
	x	y		x	y		x	y
a2	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

PACKING & LABEL SPECIFICATIONS

WP53BR12.7QWC/D



LABEL

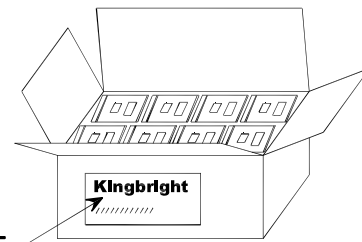
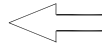


200PCS / BAG



OUTSIDE LABEL

8K / 9# BOX



OUTSIDE LABEL

4K / 5# BOX

<h2 style="margin: 0;">Kingbright</h2>	
P/NO: WP53BRxxx	
QTY: 200 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C XX XX XX PASSED</span>
S/N: XXXX	
CODE: XXX	
LOT NO:	
<small>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</small>	
RoHS Compliant	