

# **SUPER FLUX LED**

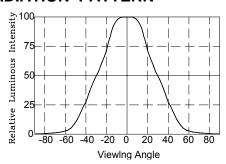
## VZ-925WI4 PACKAGE CONFIGURATION

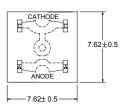
#### **DESCRIPTION**

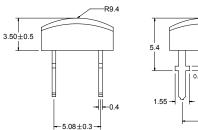
Dice Material : GaN Blue Light Color : White Color

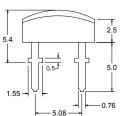
Lens Color: Water Transparent

### **RADIATION PATTERN**









Tolerance ± 0.25 mm

### ABSOLUTE MAXIMUM RATINGS AT Ta = 25 $^{\circ}$ C

PARAMETER	MAX.	UNIT
Power Dissipation (PD)	120	mW
Continuous Forward Current (IF)	30	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) (IFP)	100	mA
Reverse Voltage (VR)	5	V
Derating Linear From 25 °C	0.4	mA/°C
Operating Temperature Range (Topr)	$-$ 30 $^{\circ}\!$	
Storage Temperature Range (Tstg)	-40~% to $+~100~%$	

Lead Solder Temperature 1.6 mm Below Package 260 ℃ for 5 seconds (Tsld)

ELECTRICAL	OPTICAL CHA	ARACTERISTICS A	T Ta = 25 ℃
SYMBOL	PARAMETER	TEST COND.	MIN.

SYMBOL	PARAMETER	TEST COND.	MIN.	TYP.	MAX.	UNIT
VF	Forward Voltage	I F = 30 mA		3.2	4.0	V
lr	Reverse Current	V R = 5V			10	$\mu$ A
2 <i>θ</i> 1/2	Viewing Angle	I F = 30 mA		60		Deg
ΙV	Luminous Intensity	I F = 30 mA	2.8	4.15		lm

#### BIN GRADE LIMITS (IF=30 mA) Total Flux / Im

Bin	F	G	Н	I	
Min.	2.8	3.6	4.7	6.0	
Max.	3.6	4.7	6.0	7.8	

Tolerance ± 15%lm

Please contact our sales department for more information.

# BIN GRADE LIMITS (IF=30 mA) CHROMATICITY COORDINATESL

WA1	Х	0.260	0.260	0.275	0.275	WC1	Х	0.320	0.320	0.335	0.335
	у	0.240	0.280	0.300	0.260		у	0.330	0.370	0.390	0.350
WA2	Х	0.275	0.275	0.290	0.290	WC2	Х	0.335	0.335	0.350	0.350
VVAZ	у	0.260	0.300	0.320	0.280		у	0.350	0.390	0.410	0.370
WB1	Х	0.290	0.290	0.305	0.305	WD1	Х	0.350	0.350	0.365	0.365
	у	0.280	0.320	0.345	0.305		у	0.370	0.410	0.430	0.390
WB2	Х	0.305	0.305	0.320	0.320	WD2	Х	0.365	0.365	0.380	0.380
	у	0.305	0.345	0.370	0.330		у	0.390	0.430	0.450	0.410

Please contact our sales department for more information.

Tolerance ± 0.012

<sup>\*</sup>Bright View reserves the rights to alter specifications and remove availability of products at any time without notice.

<sup>\*</sup>Dominant Wavelength,  $\lambda$  d is according to CIE Chromaticity Diagram base on color of lamps.

<sup>\*</sup>  $\theta$  1/2 is the off-axis angle where the luminous intensity is one half the on-axis intensity.

<sup>\*</sup>These products are sensitive to static electricity. Caution must be taken strictly to avoid static electricity.



## **BVZ-925WI4**

#### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

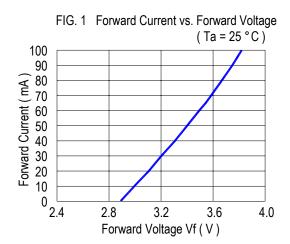


FIG. 2 Relative Total Flux vs. Forward Current (Ta = 25 °C)3.0 2.5 Relative Intensity 2.0 1.5 1.0 0.5 0 0 10 20 30 40 50 60 70 Forward Current If ( mA )

FIG. 3 Forward Voltage vs. Temperature

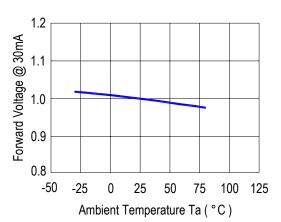
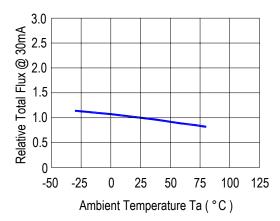


FIG. 4 Relative Intensity vs. Temperature



(Ta = 25 °C)

1.0

0.5

0.5

500

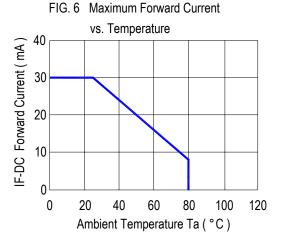
400

FIG. 5 Relative Intensity vs. Wavelength (λp)

600

Wavelength (nm)

700



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## **SUPER FLUX LED**

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#### CAUTION FOR CLASS 1 ESD (MACHINE MODE)

Gallium Nitride (GaN) based light emitting diodes (LEDs) are extremely sensitive to electrostatic discharge (ESD). Users are strongly recommended to take necessary meter to test the static and avoid ESD when handing these products.

Bright View's BA, GN, WI series products are GaN based materials and are classified as "Class 1",( ESD endurance 50V or lower ), any manufacturing site or workstation where GaN devices are handled should be rated and controlled at 50V or below.

Proper grounding of products or machines ( via  $1M\Omega$  ), using static dissipative mats, static dissipative containers, static dissipative working uniforms and shoes are considered to be effective against ESD.

An ionizer is recommended in the facility or environment where ESD may be generated easily, and soldering iron with a grounded tip is also recommended.

To install a protection device in the LED circuit to ensure the surge current and voltage not exceeding the max rating during on/off swithing.

When inspecting the final products in which LEDs are assembled, it is recommended to check whether the assembled LEDs are damaged by ESD or not. It is simple to find damaged LEDs by light-on or a VF test at lower current (below 1mA is recommended).

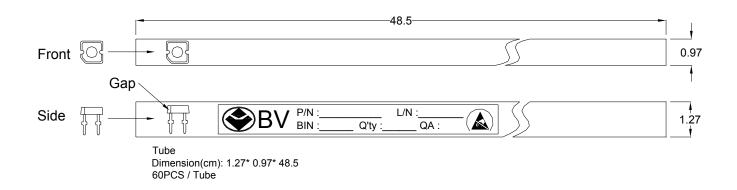
ESD damaged LEDs will show some unusual characteristics such as the remarkable increasing of leak current, the forward voltage become lower, or the LEDs do not light on at the low current.



## **BVZ-925WI4**

### ■ Packaging :

### ■ Package Carrier Tape Dimensions :



### ■ Package Reel Dimensions :

