VAOL-S8SB4

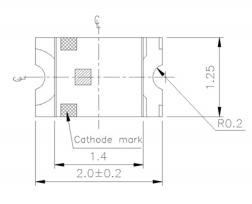
#### **Features**

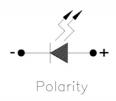
- Fit automatic placement equipment.
- Fit Compatible with infrared and vapor phase reflow solder process.
- Pb-free.
- RoHS compliant.

### **Descriptions**

- For higher packing density.
- For minature applications .
- Water clear lens .
- Chip material: InGaN.
- Emitting color: Blue.

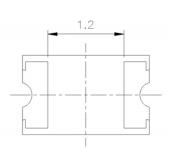
### **Package Outline Dimensions**

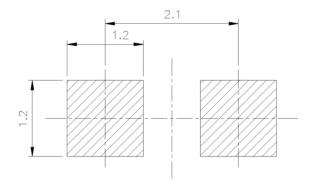






For reflow soldering





**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm, Unit = mm





### **Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Rating	Unit	
Reverse Voltage	$V_R$	5	V	
Forward Current	${ m I}_{\sf F}$	25	mA	
Operating Temperature	Topr	-40 ~ +85	$^{\circ}$ C	
Storage Temperature	Tstg	-40~ +90	$^{\circ}\! \mathbb{C}$	
Discharge(HBM)	ESD	150	V	
Power Dissipation	Pd	110	mW	
Peak Forward Current (Duty 1/10 @1KHz)	$ m I_{FP}$	100	mA	
Soldering Temperature	Tsol	Reflow Soldering: 260 °C for 10 sec.  Hand Soldering: 350 °C for 3 sec.		

## Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity	$I_{\mathrm{v}}$	28.5		72.0	mcd	
Viewing Angle	2 \theta 1/2		140		deg	
Peak Wavelength	λр		468		nm	
Dominant Wavelength	λd	464.5		476.5	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ		35		nm	
Forward Voltage	$V_{\mathrm{F}}$		3.3	3.7	V	
Reverse Current	$I_R$			50	μΑ	$V_R=5V$

### **Notes:**

- 1. Tolerance of Luminous Intensity ±10%
- 2. Tolerance of Dominant Wavelength  $\pm$  1nm
- 3.Tolerance of Forward Voltage ±0.10V







### Bin Range Of Dom. Wavelength

Group	Bin	Min	Max	Unit	Condition
	A9	464.5	467.5	nm	I <sub>F</sub> =20mA
A	A10	467.5	470.5		
	A11	470.5	473.5		
	A12	473.5	476.5		

### **Bin Range Of Luminous Intensity**

Bin	Min	Max	Unit	Condition
N1	28.5	36.0	mcd	I <sub>F</sub> =20mA
N2	36.0	45.0		
P1	45.0	57.0		
P2	57.0	72.0		

Specific binning requirements- please contact our home office

#### **Notes:**

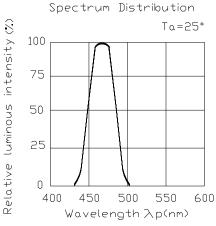
1. Tolerance of Luminous Intensity ±10%

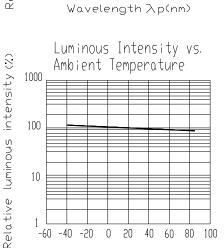
2. Tolerance of Dominant Wavelength  $\pm$  1nm

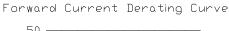




### **Typical Electro-Optical Characteristics Curves**



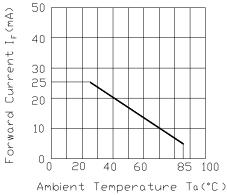


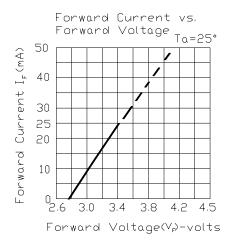


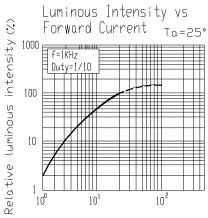
Ambient Temperature Ta(°C)

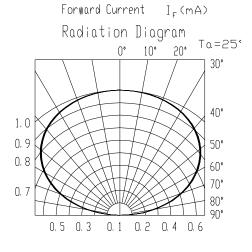
60

80 100







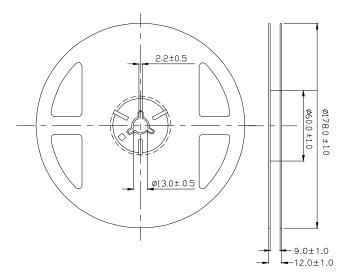








### **Reel Dimensions**

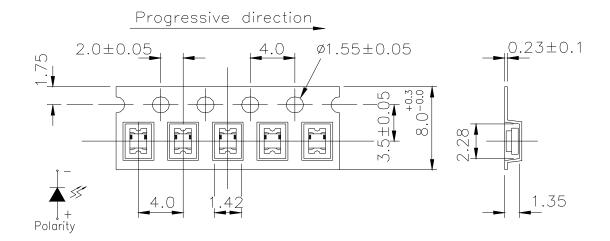


**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm, Unit = mm



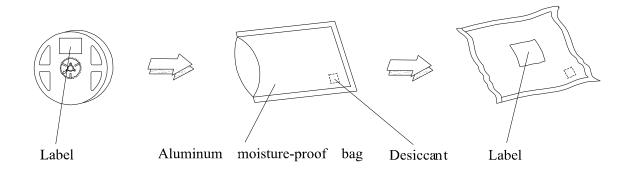


## Carrier Tape Dimensions: Loaded quantity 3000 PCS per reel



**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm, Unit = mm.

# **Moisture Resistant Packaging**

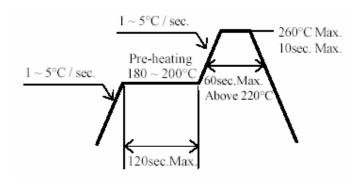






#### **Soldering Condition**

1.Pb-free solder temperature profile



- 2.Reflow soldering should not be done more than two times.
- 3 When soldering, do not put stress on the LEDs during heating.
- 4 After soldering, do not warp the circuit board.

#### Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.



