

 $3.0\mathrm{x}2.0\mathrm{mm}$  SURFACE MOUNT LED

LAMP

## PRELIMINARY SPEC

### **Features**

- 3.0mm x 2.0mm, 1.3mm high, only minimum space required.
- Suitable for compact optoelectronic applications.
- Low power consumption.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.

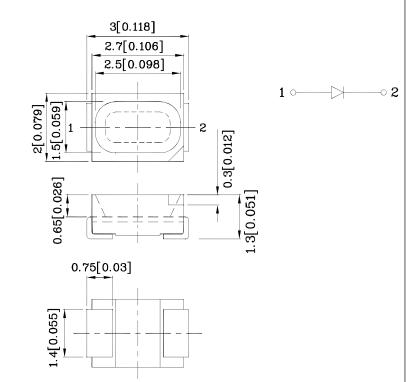




### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Rating (TA=25°C)	VG (AlGaInP)	Unit	
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA
Power Dissipation	PD	75	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	-0



Operating Characterist (TA=25°C)	VG (AlGaInP)	Unit	
Forward Voltage (Typ.) (IF=20mA)	$V_{\rm F}$	2.1	V
Forward Voltage (Max.) (IF=20mA)	VF	2.5	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength of Peak Emission (Typ.) (IF=20mA)	λΡ	574	nm
Wavelength of Dominant Emission (Typ.) (IF=20mA)	λ D	570	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	Δλ	20	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	С	15	pF

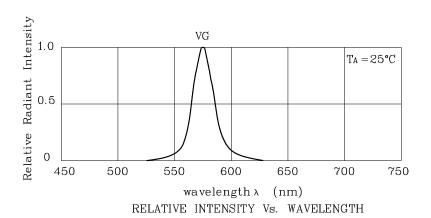
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
XZVG105W	Green	AlGaInP	Water Clear	50	84	574	125°
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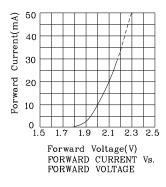
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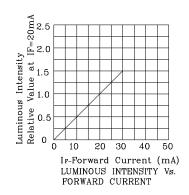
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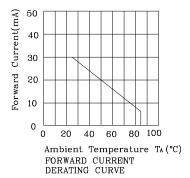


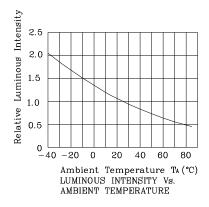


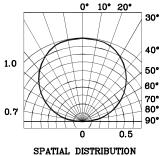
❖ VG











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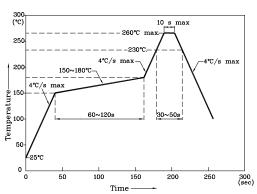
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Reflow soldering is recommended and the soldering profile is shown below.

Reflow Soldering Profile For Lead-free SMT Process.

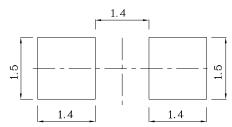
Other soldering methods are not recommended as they might cause damage to the product.



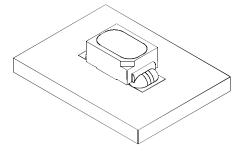
#### NOTES:

- 1. Maximum soldering temperature should not exceed 260°c.
- 2. Recommended reflow temperature: 145°c-260°c.
- 3. Do not put stress to the epoxy resin during high temperatures conditions.

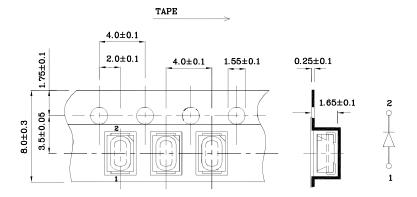
# ❖ Recommended Soldering Pattern (Units: mm; Tolerance: ±0.1)



❖ The device has a single mounting surface. The device must be mounted according to the specifications.



❖ Tape Specification (Units:mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength),

the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

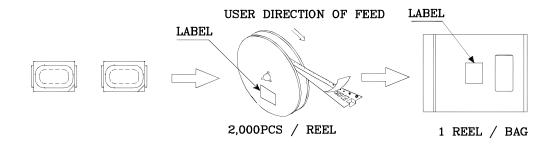


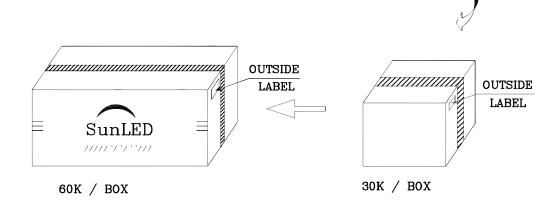
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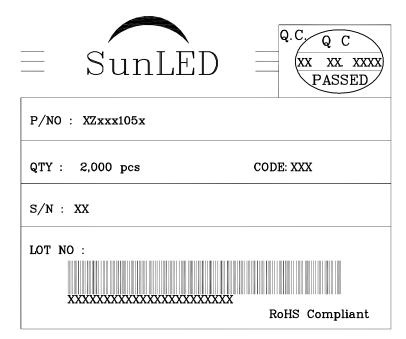
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## PACKING & LABEL SPECIFICATIONS

## XZVG105W







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