

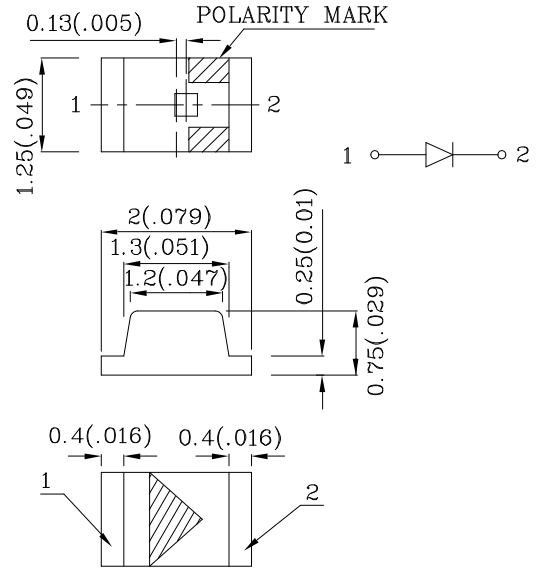
PRELIMINARY SPEC

**Features**

- 2.0mmx1.25mm SMT LED, 0.75mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.



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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

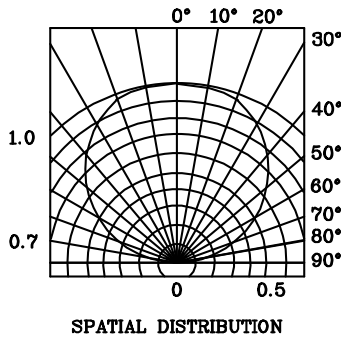
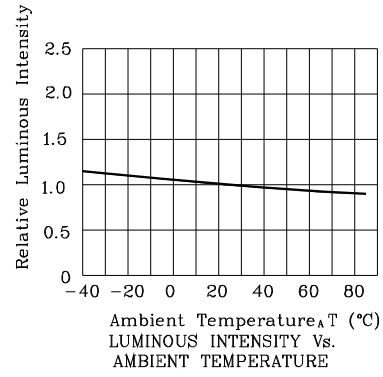
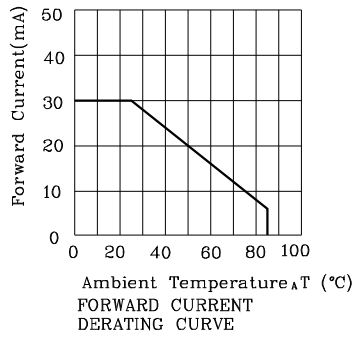
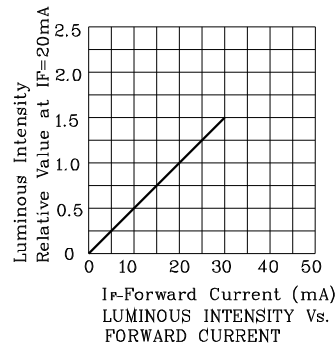
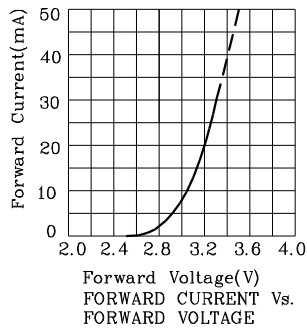
Absolute Maximum Ratings (TA=25°C)		NWA (InGaN)	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	100	mA
Power Dissipation	P <sub>T</sub>	120	mW
Operating Temperature	T <sub>A</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		1000	V

Operating Characteristics (TA=25°C)		NWA (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	3.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	4.0	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	I <sub>R</sub>	10	uA
Chromaticity Coordinates (Typ.)	X	0.31	
	Y	0.31	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA) mcd		Viewing Angle 2 θ 1/2
				min.	typ.	
XZNWA54F-1	White	InGaN	Yellow Fluorescent	70	138	120°

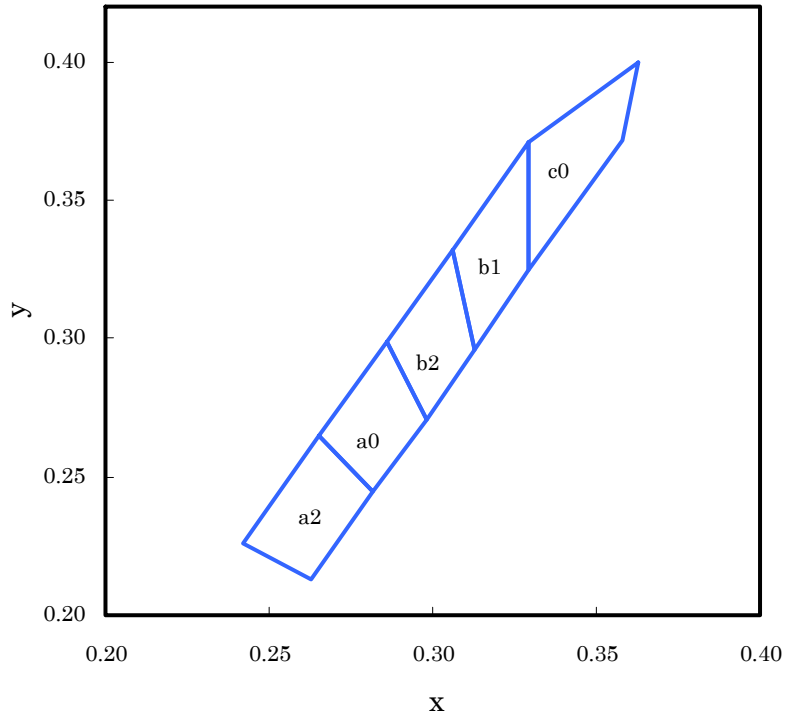


❖ **NWA**



**XZNWA54F-1**

**White CIE**



Rank a2				
X	0.263	0.282	0.265	0.242
Y	0.213	0.245	0.265	0.226

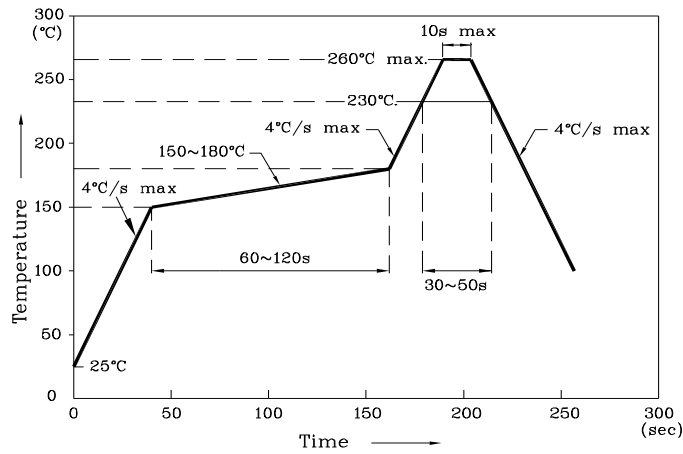
Rank a0				
X	0.282	0.298	0.286	0.265
Y	0.245	0.271	0.299	0.265

Rank b2				
X	0.298	0.313	0.306	0.286
Y	0.271	0.296	0.332	0.299

Rank b1				
X	0.313	0.329	0.329	0.306
Y	0.296	0.325	0.371	0.332

Rank c0				
X	0.329	0.358	0.363	0.329
Y	0.325	0.372	0.400	0.371

Reflow Soldering Profile For Lead-free SMT Process.

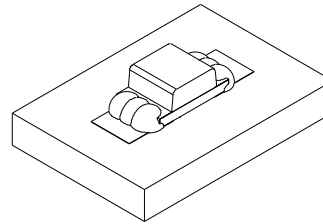
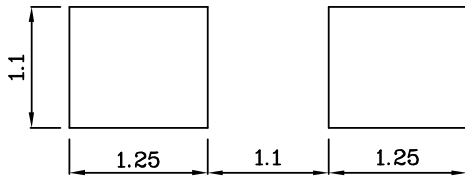


Notes:

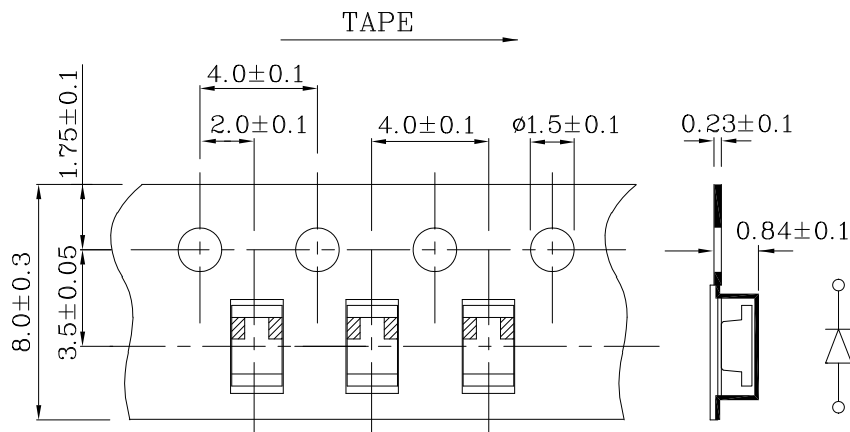
1. Maximum soldering temperature should not exceed 260°C.
2. Recommended reflow temperature: 145°C-260°C.
3. Do not put stress to the epoxy resin during high temperatures conditions.

❖ 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:

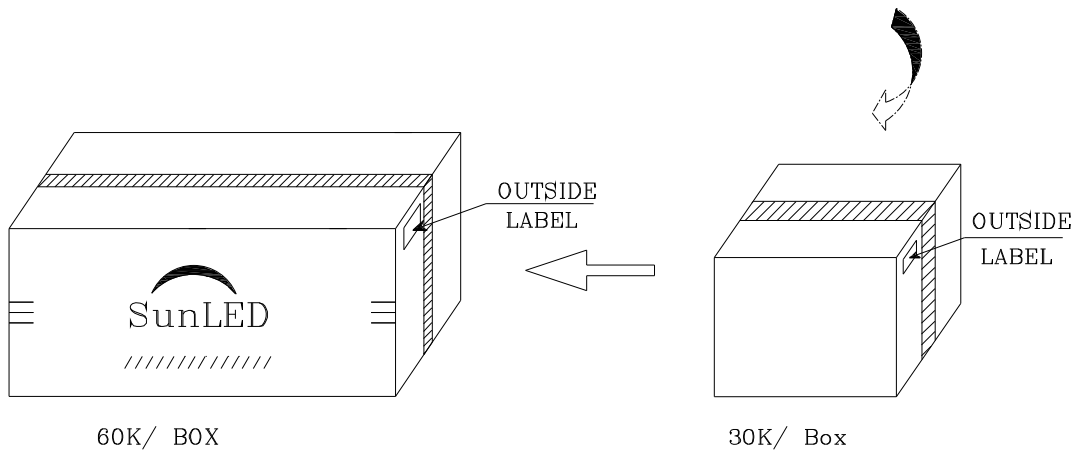
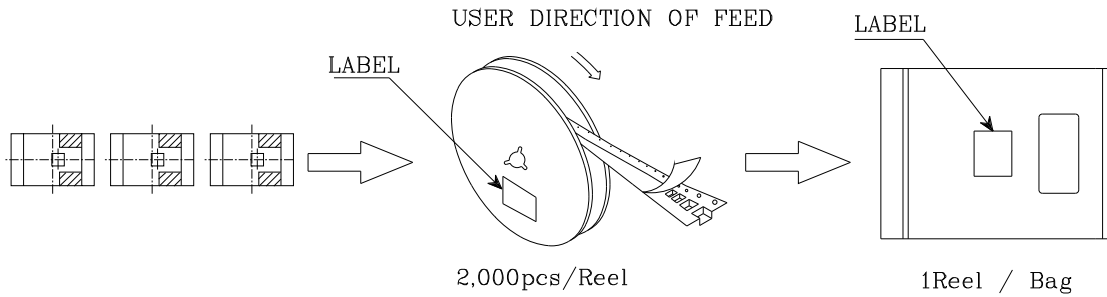

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or chromaticity), the typical accuracy of the sorting process is as follows:

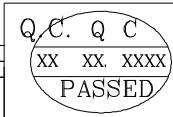

1. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01$ .
2. Luminous Intensity / Luminous Flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1V$

Note: Accuracy may depend on the sorting parameters.

**PACKING & LABEL SPECIFICATIONS**

**XZNWA54F-1**

	
P/NO : XZxxx54x-1	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	