

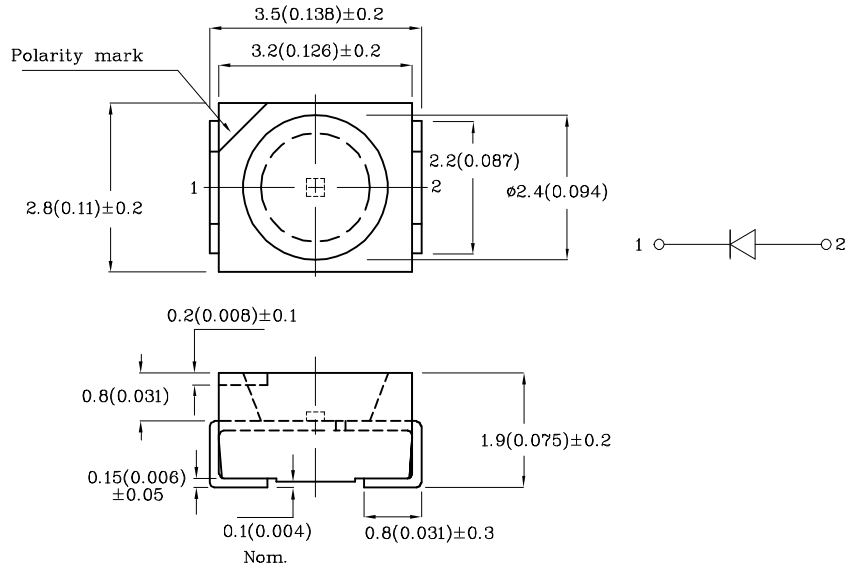
Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000 pcs / Reel
- MSL (Moisture Sensitivity Level): 3
- Halogen-free
- RoHS compliant



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T _A =25°C)		Galaxy Pink (InGaN)	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	I _{FP}	100	mA
Power Dissipation	P _D	120	mW
Operating Temperature	T _A	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		250	V

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Operating Characteristics (T _A =25°C)		Galaxy Pink (InGaN)	Unit
Forward Voltage (Typ.) (I _F =20mA)	V _F	3.3	V
Forward Voltage (Max.) (I _F =20mA)	V _F	4.0	V
Reverse Current (Max.) (V _R =5V)	I _R	50	μA
Chromaticity Coordinates (Typ.)	x	0.35	-
	y	0.15	-

Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I _F =20mA) mcd		Viewing Angle 20 1/2
			min.	typ.	
XZFRA45SVC	Galaxy Pink	InGaN	200*	297*	120°

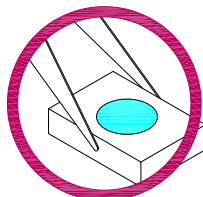
*Luminous intensity value is in accordance with CIE127-2007 standards.

Handling Precautions

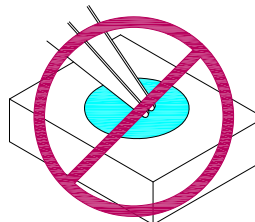
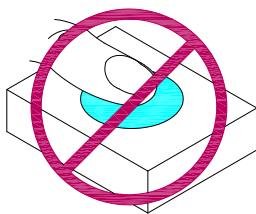
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

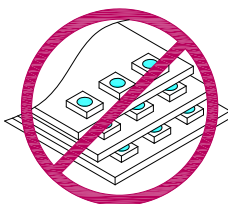
1. Handle the component along the side surfaces by using forceps or appropriate tools.



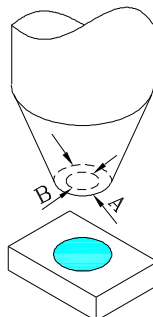
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



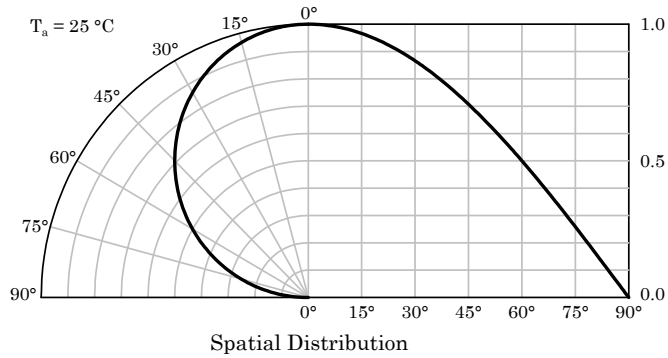
3. Do not stack together assembled PCBs containing exposed LEDs. Impact may scratch the silicone lens or damage the internal circuitry.



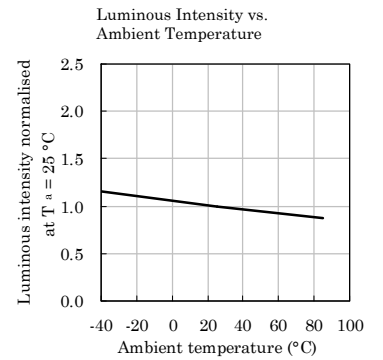
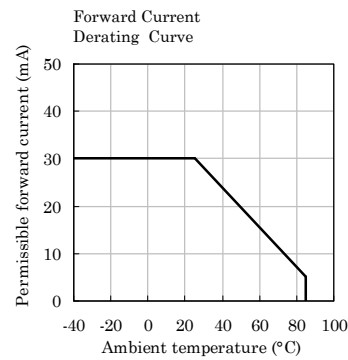
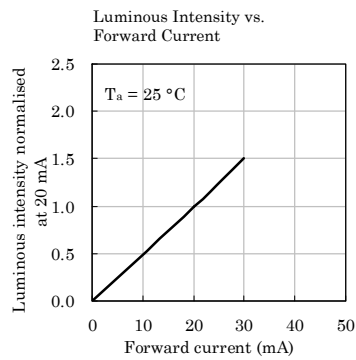
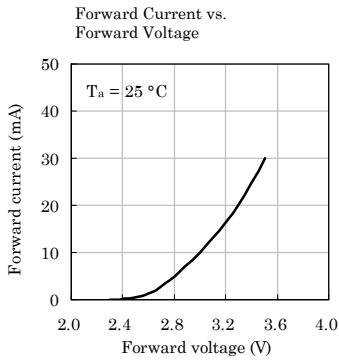
- 4.1. The inner diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks.
- 4.2. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 4.3. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



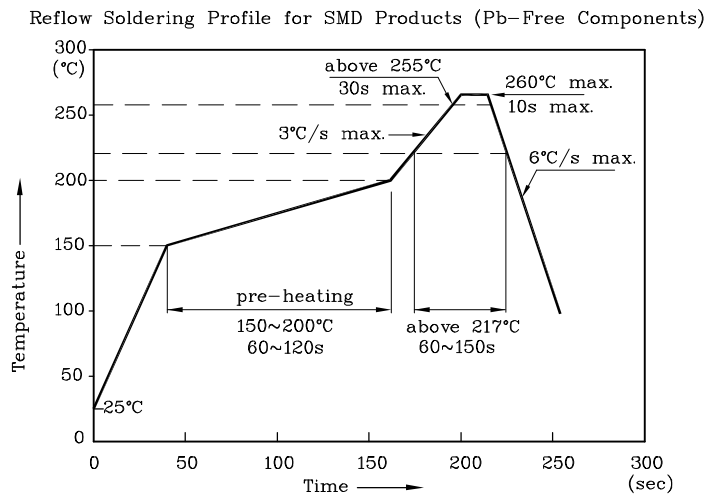
5. As silicone encapsulation is permeable to gases, some corrosive substances such as H_2S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.



❖ Galaxy Pink

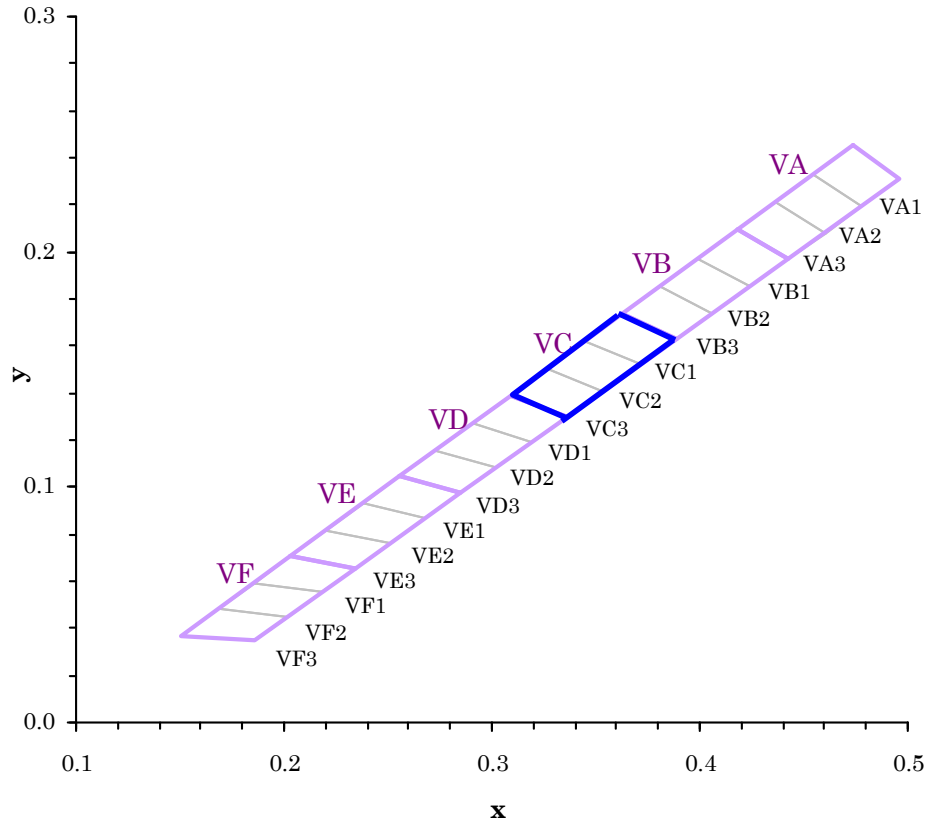


LED is recommended for reflow soldering and soldering profile is shown below.



- Notes:
1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
 2. Do not apply any stress to the LED during high temperature conditions.
 3. Maximum number of soldering passes: 2

Galaxy Pink CIE



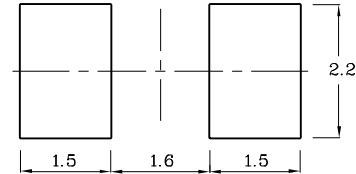
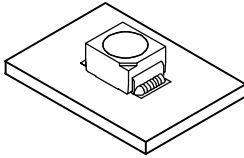
Bin code	x	y	Bin code	x	y	Bin code	x	y
VA1	0.4735	0.2451	VC1	0.3629	0.1737	VE1	0.2556	0.1044
	0.4548	0.2330		0.3448	0.1620		0.2380	0.0931
	0.4783	0.2194		0.3713	0.1518		0.2682	0.0867
	0.4964	0.2309		0.3888	0.1629		0.2850	0.0973
VA2	0.4548	0.2330	VC2	0.3448	0.1620	VE2	0.2380	0.0931
	0.4363	0.2211		0.3267	0.1504		0.2205	0.0818
	0.4602	0.2080		0.3538	0.1408		0.2514	0.0761
	0.4783	0.2194		0.3713	0.1518		0.2682	0.0867
VA3	0.4363	0.2211	VC3	0.3267	0.1504	VE3	0.2205	0.0818
	0.4178	0.2091		0.3088	0.1388		0.2030	0.0705
	0.4422	0.1966		0.3364	0.1298		0.2347	0.0656
	0.4602	0.2080		0.3538	0.1408		0.2514	0.0761
VB1	0.4178	0.2091	VD1	0.3088	0.1388	VF1	0.2030	0.0705
	0.3994	0.1973		0.2910	0.1273		0.1857	0.0593
	0.4243	0.1853		0.3192	0.1189		0.2182	0.0551
	0.4422	0.1966		0.3364	0.1298		0.2347	0.0656
VB2	0.3994	0.1973	VD2	0.2910	0.1273	VF2	0.1857	0.0593
	0.3811	0.1855		0.2732	0.1158		0.1683	0.0481
	0.4065	0.1741		0.3021	0.1081		0.2018	0.0448
	0.4243	0.1853		0.3192	0.1189		0.2182	0.0551
VB3	0.3811	0.1855	VD3	0.2732	0.1158	VF3	0.1683	0.0481
	0.3629	0.1737		0.2556	0.1044		0.1510	0.0369
	0.3888	0.1629		0.2850	0.0973		0.1856	0.0345
	0.4065	0.1741		0.3021	0.1081		0.2018	0.0448

Notes:

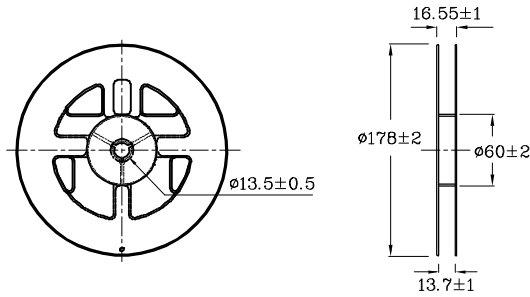
1. Shipment may contain more than one chromaticity regions.
2. Orders for single chromaticity region are generally not accepted.
3. Measurement tolerance of the chromaticity coordinates is ± 0.01 .
4. This device utilizes S/CASN phosphor technology licensed by NIMS. For more information please refer to <https://www.sunledusa.com/newsNIMS.aspx>

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

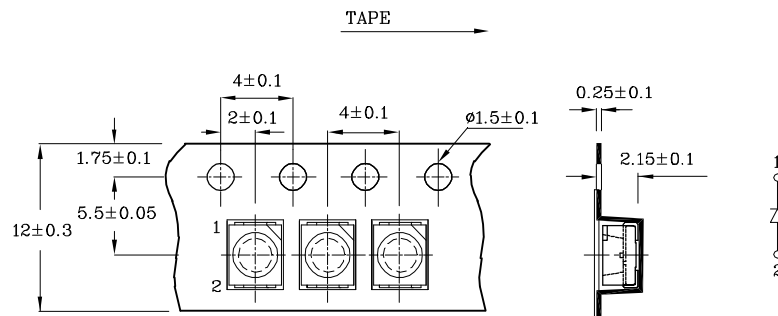
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension (Units : mm)



❖ Tape Specification (Units : mm)



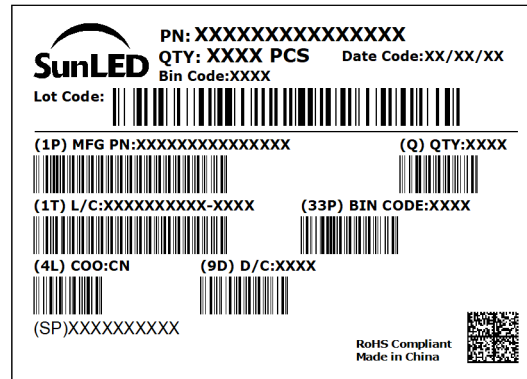
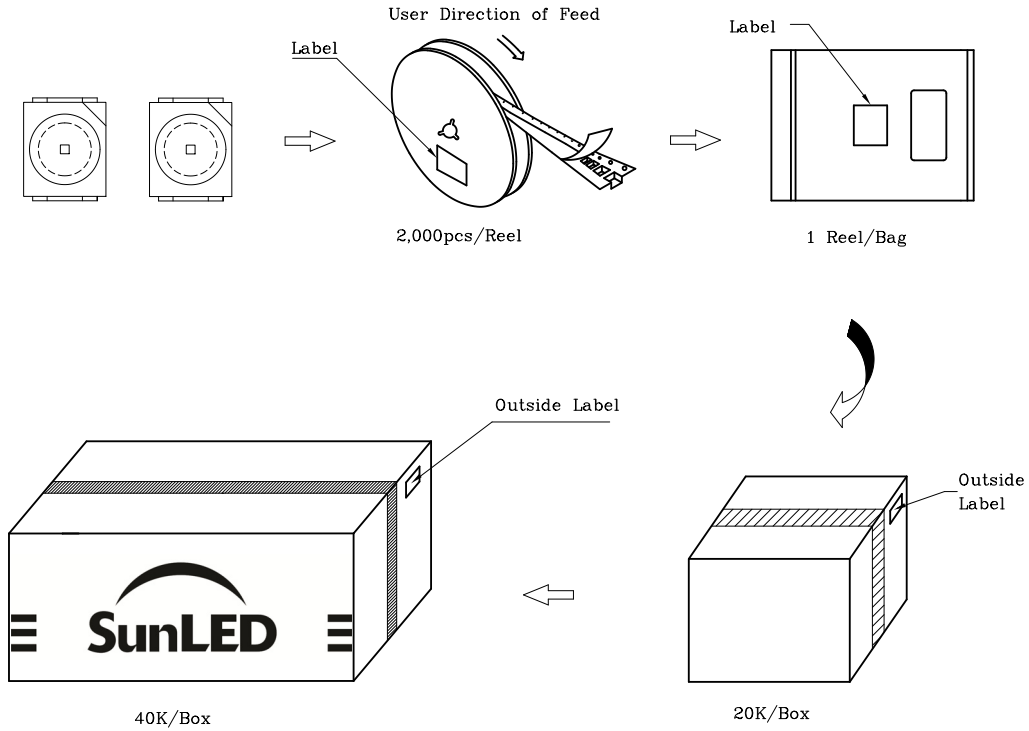
Remarks:

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 ± 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



TERMS OF USE

1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
2. Contents within this document are subject to improvement and enhancement changes without notice.
3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet.
User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
5. The performance of the product(s) should be evaluated and verified by the customer to ensure it can meet the customer's application requirements.
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