

4.0x4.0mm RIGHT ANGLE SURFACE MOUNT **LED LAMP**

Part Number: AA4040NS

Pure Orange

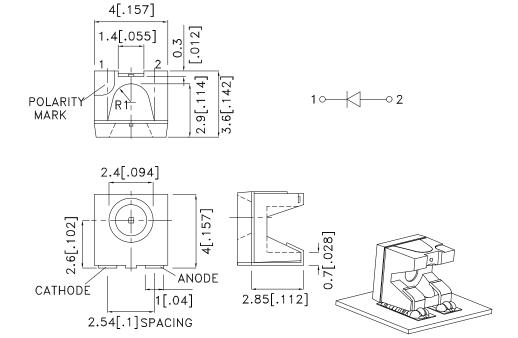
Features

- Single color.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Ideal for backlighting.
- Package : 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Pure Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Pure Orange Light Emitting Diode.

Package Dimensions



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.





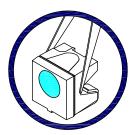
SPEC NO: DSAL0973 **REV NO: V.2** DATE: MAR/15/2011 PAGE: 1 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: D.M.Su ERP: 1201007052

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. 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.

 SPEC NO: DSAL0973
 REV NO: V.2
 DATE: MAR/15/2011
 PAGE: 2 OF 6

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: D.M.Su
 ERP: 1201007052

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
AA4040NS	Pure Orange (GaAsP/GaP)	Water Clear	15	30	120°

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value. 2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Pure Orange	607		nm	IF=20mA
λD [1]	Dominant Wavelength	Pure Orange	610		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Pure Orange	35		nm	IF=20mA
С	Capacitance	Pure Orange	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Pure Orange	2.05	2.5	V	IF=20mA
lr	Reverse Current	Pure Orange		10	uA	V _R =5V

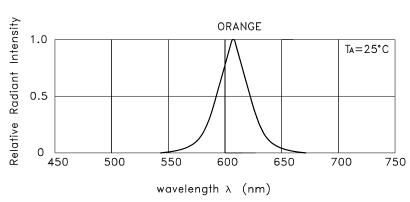
- Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Pure Orange	Units	
Power dissipation	62.5	mW	
DC Forward Current	25	mA	
Peak Forward Current [1]	145	mA	
Reverse Voltage	5	V	
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

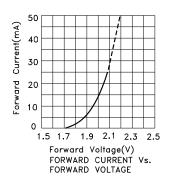
SPEC NO: DSAL0973 REV NO: V.2 DATE: MAR/15/2011 PAGE: 3 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: D.M.Su ERP: 1201007052

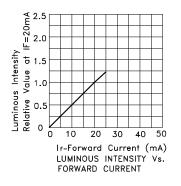


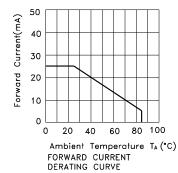
RELATIVE INTENSITY Vs. WAVELENGTH

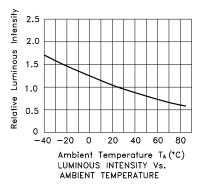
Pure Orange

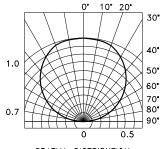
AA4040NS











SPATIAL DISTRIBUTION

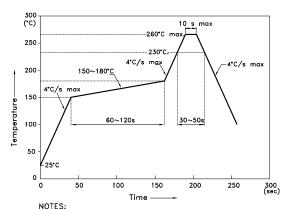
 SPEC NO: DSAL0973
 REV NO: V.2
 DATE: MAR/15/2011
 PAGE: 4 OF 6

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: D.M.Su
 ERP: 1201007052

AA4040NS

Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



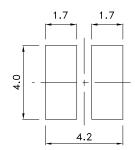
- NOTES:

 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
 - to high temperature.

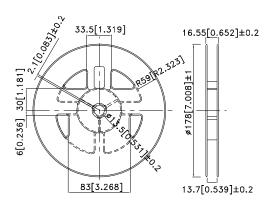
 3.Number of reflow process shall be 2 times or less.

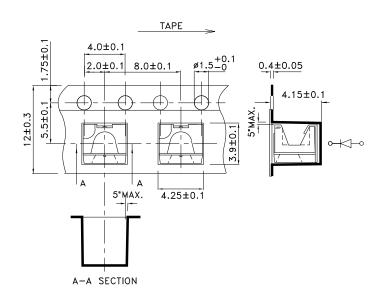
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)

Reel Dimension



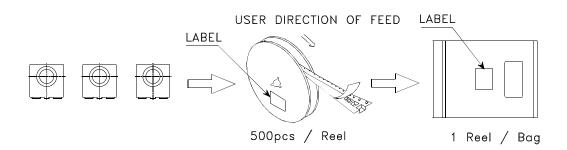


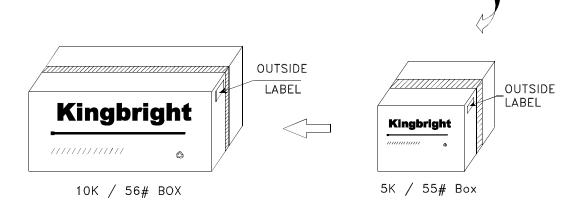
 SPEC NO: DSAL0973
 REV NO: V.2
 DATE: MAR/15/2011
 PAGE: 5 OF 6

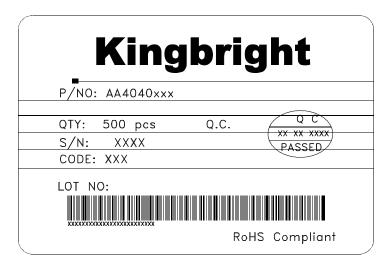
 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: D.M.Su
 ERP: 1201007052

PACKING & LABEL SPECIFICATIONS

AA4040NS







SPEC NO: DSAL0973 APPROVED: WYNEC

REV NO: V.2 CHECKED: Allen Liu DATE: MAR/15/2011 DRAWN: D.M.Su

PAGE: 6 OF 6 ERP: 1201007052