



Y. LIN ELECTRONICS CO., LTD.

Data Sheet

Customer: _____
Part No: _____ YLS191/O/21/06-E-C _____
Sample No: _____ YL20170626-911S _____
Description: _____ 0603 Orange SMD _____
Item No: _____

Customer			
Check	Inspection	Approval	Date

Y.LIN			
Drawn	Check	Approval	Date
			2017/4/27

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Features:

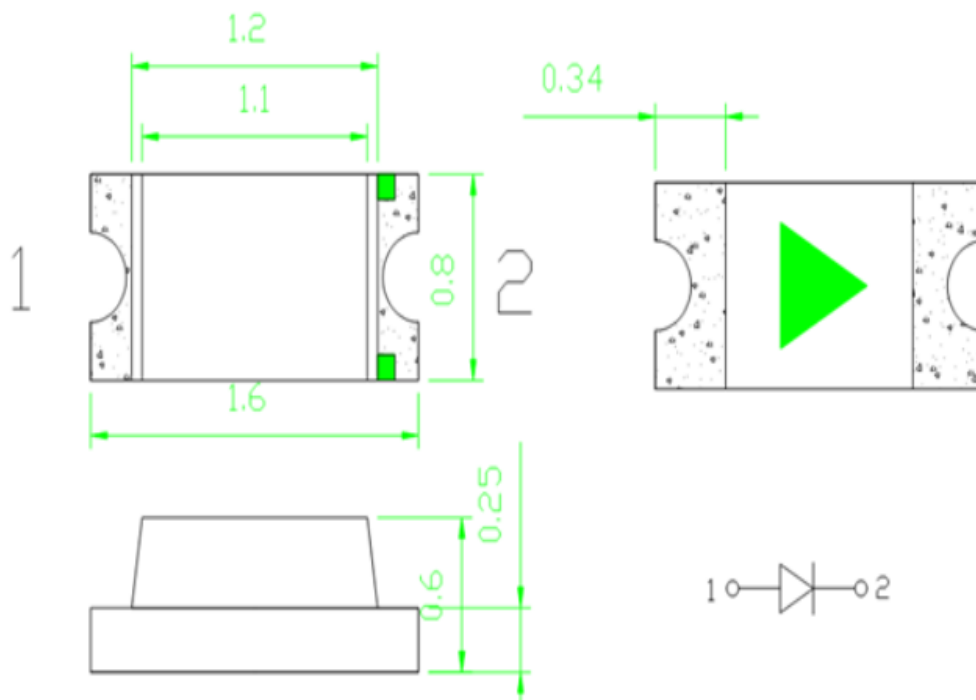
- . Reflow Solderable
- . High Luminous Intensity and Low Power Dissipation
- . Good Reliability and Long Life
- . Complied With RoHS Directive

Technical Data Sheet

This product is generally used as indicator and luminary for electronic equipment such as household appliance, communication equipment, and dashboard.

Applications

- Optical indicator
- Indoor display
- Backlighting in dashboard and switch
- Flat backlighting for LCD, symbol and display
- General use



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is $\pm 0.2\text{mm}$ unless otherwise noted.



Selection Guide

Part No.	Dice	Lens Type	Luminous intensity(mcd) @ 20mA			Viewing Angle
			Min	Typ	Max	2θ1/2
YLS191/O/21/06-E-C	Orange (AlGaInP)	Water Clear	100	150	--	120

Note:

- 1.1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 2.the above luminous intensity measurement allowance tolerance $\pm 10\%$

Electrical / Optical Characteristics at Ta=25 °C

Parameter	Symbol	Min.	Typ.	Max	Units	test conditions
Forward Voltage	VF	1.8	2.0	2.4	V	IF=20mA
Reverse Current	IR	--	--	10	uA	VR = 5V
Dominate Wavelength	ld	600	--	610	nm	IF=20mA

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Rating	Units
Power Dissipation	Pd	60	mW
DC Forward Current	IF	25	mA
Peak Forward Current [1]	IFP	60	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	Topr	-30~+85	°C
Storage Temperature	Tstg	-40~+100	°C

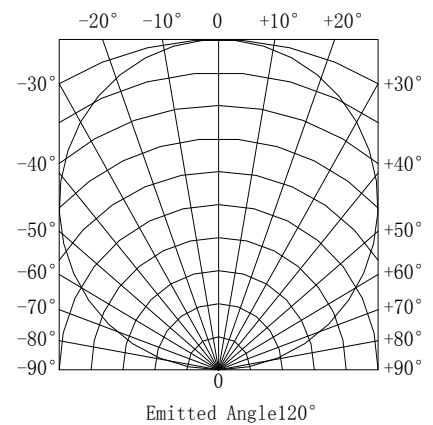
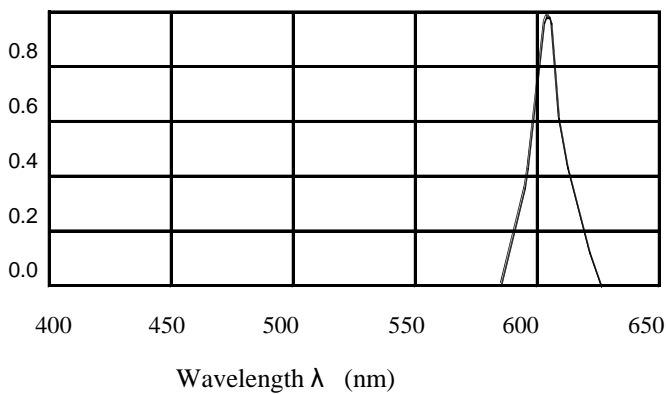
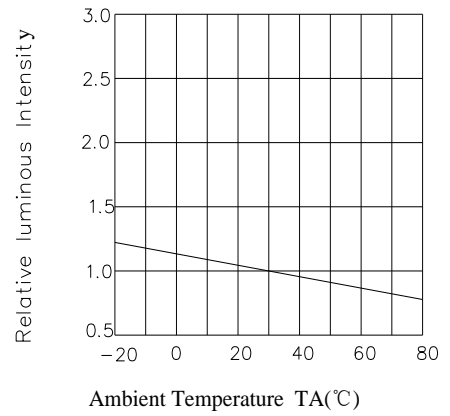
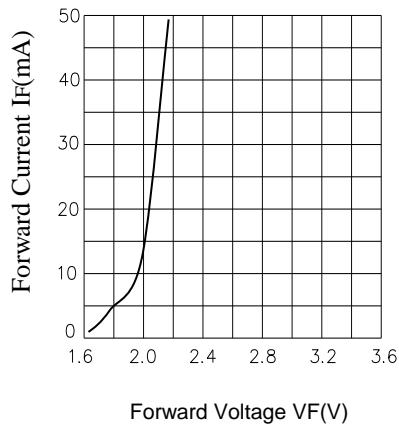
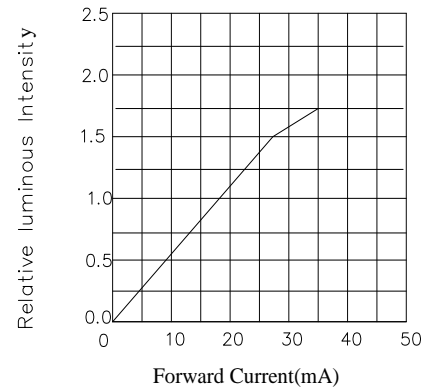
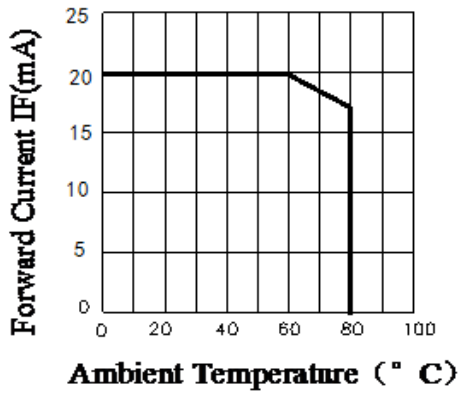
Note:

1. 1/10 Dut cycle,0.1ms pulse width.
2. The above forward voltage measure ment allowance tolerance $\pm 0.1V$.



Typical optical characteristics curves

Ambient Temperature VS Forward Current





Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

Confidence level :90%

LTPD :10%

Test Items	Test conditions	Quantity	Judging Criteria
Solderability	Solder Temperature: 300°C Solder Duration: (3.5±0.5) sec.	22	Solderable Area Over 95%
Thermal Shock Followed by High Temperature And High Humidity Cyclic	-40°→10min 5 Cycles ↑ ↓ shift(2~3)min 100°C →10 min. 25°C~55°C (90%~95%) RH 2 Cycles for 48 hrs., Recover for 2 hrs	22	C=0 & I**
Resistance For Soldering Heat	Reflow Soldering	22	C=0 & I**
DC Operating Life	1000 hrs. Forward Current: 20mA	22	C=0 & I**
High Temperature Storage	100°C → 1000 hrs	22	C=0 & I**
High Temperature And High Humidity Cyclic	25°C~55°C (90%~95%) RH 6 Cycles for 144 hrs., Recover for 2 hrs.	22	C=0 & I**

The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.



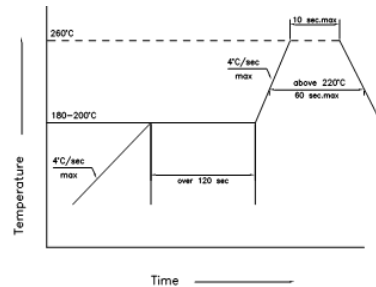
YLS191/O/21/06-E-C

SMT Reflow Soldering Instructions

1.Reflow soldering is not can do two times

2.When soldering , do not put stress on the LEDs during heating .

3.Product is highest resistant to 260°C , reflow but suggested the highest temperature of 240°C within .



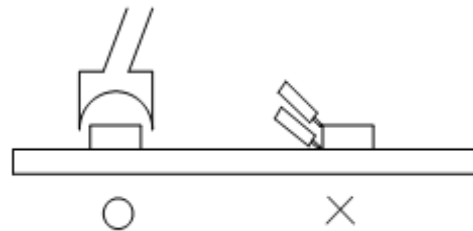
Soldering iron

1.When hand soldering, the temperature of the iron must less than 300°C for 3 seconds

2.The hand solder should be done only one times

Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of LEDs will or will not be damaged by repairing.



Storage

The package is sealed:

1.The LEDs Should be store at5°C~30°C and 90% RH or less.

2.It is recommended that SMD out of their original packaging are used within one year.

The package is opened:

1.Completed within 672 hours.

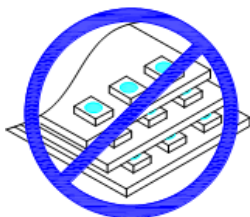
2.Stored at5°C~30°C and 60% RH or less.

3.LEDs stored more than 672 hours should be baked at about 60°C±5°C

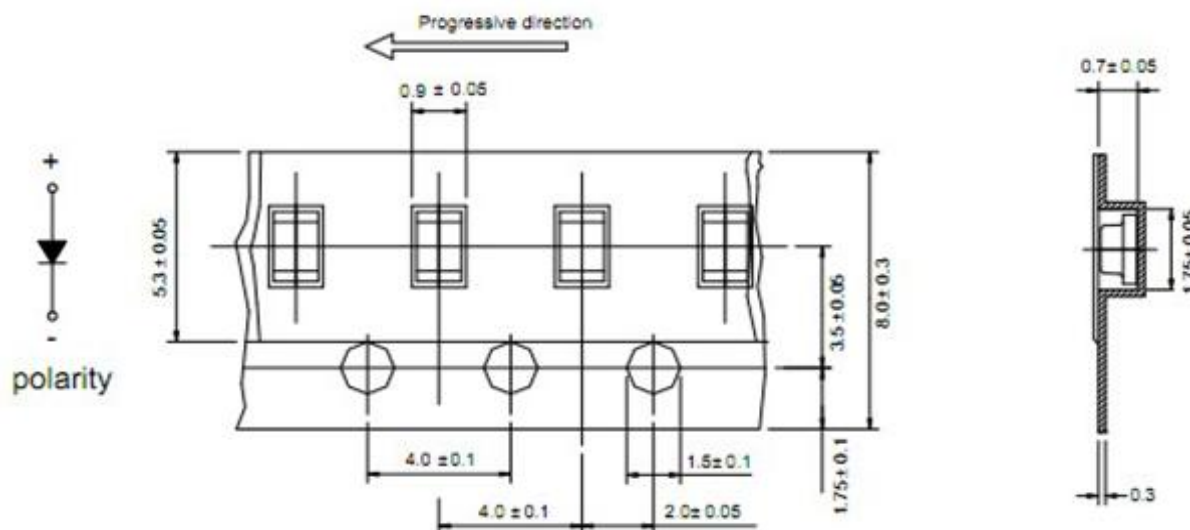
Handling Precautions

1.Do not stack together assembled PCBs containing LEDs. Impact may scratch the silicone lens or damage.

2.Not available in the situation of acidity for PH.



Carrier tape (MPQ:4000 pcs/卷)



All dimensions in mm, tolerances unless mentioned is ± 0.1 mm.

Moisture Resistant Packaging

