Features

- Dimension: 48mm x 5mm x 1.6mm.
- Instant light.
- Linear type.
- High efficiency.
- Long operating life.
- Low power consumption.
- More energy efficient than incandescent, most halogen lamps, and fluorescent lamp.
- RoHS compliant.

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

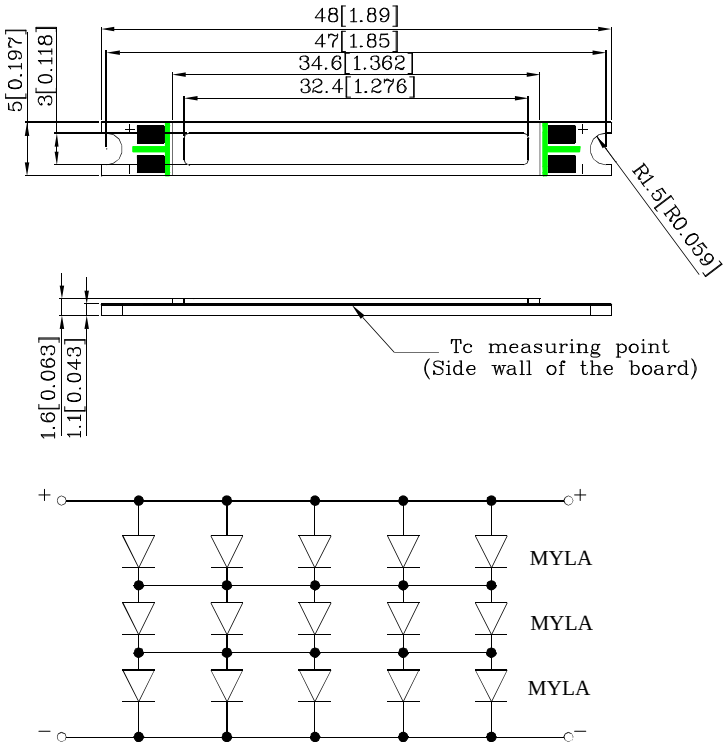
Description

The package containing fifteen chips is capable of providing high brightness.
High thermal dissipation efficiency is achieved by incorporating aluminium as reflector and also substrate to ensure long operating life.

Applications

Ceiling lights.
Contour lights.
Decoration lights.
General lighting.
Architectural lighting.

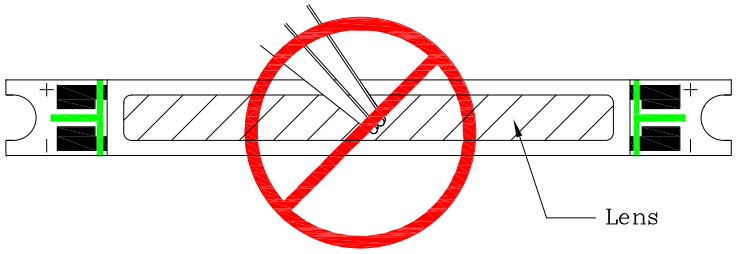
Package Schematics



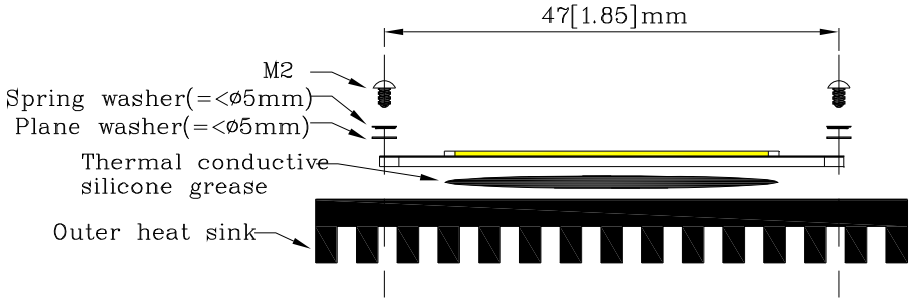
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Precautions

1. Do not touch the lens with any sharp object.
2. No stress should be applied on the lens.



3. Thermal grease between the light bar and heat sink is recommended to fill air gaps for better thermal conductivity.
4. For securing the LED light bar , M2 screws are recommended. The light bar should not be bent or stressed in any way which could damage the internal circuit.



5. To prevent damages caused by electrostatic discharge (ESD), it is recommended to wear proper gear such as wristband or anti-static gloves when handling the product.
6. Constant current source is recommended to power the light bar . When more than one light bar are used, they should be connected in series if possible.
7. Thermal management should be taken into consideration when using the product. Maximum driving current should be reduced accordingly at higher ambient temperature to prevent overheating.
8. Soldering recommendations:
   - Soldering iron power should not exceed 40W, and should not be in contact with the joint for more than 3.5 secs.
   - The maximum soldering temperature should be less than 350°C.
   - Do not touch the product immediately after soldering.
   - Not reflow compatible.
9. 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.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Units
Forward Current	I_F	500	mA
Forward Pulse Current [1]	I_{FP}	700	mA
Power Dissipation	P_d	4.3	W
LED Junction Temperature	T_j	110	°C
Operating Temperature	Topr	-30~+100	°C
Storage Temperature	Tstg	-40~+110	°C

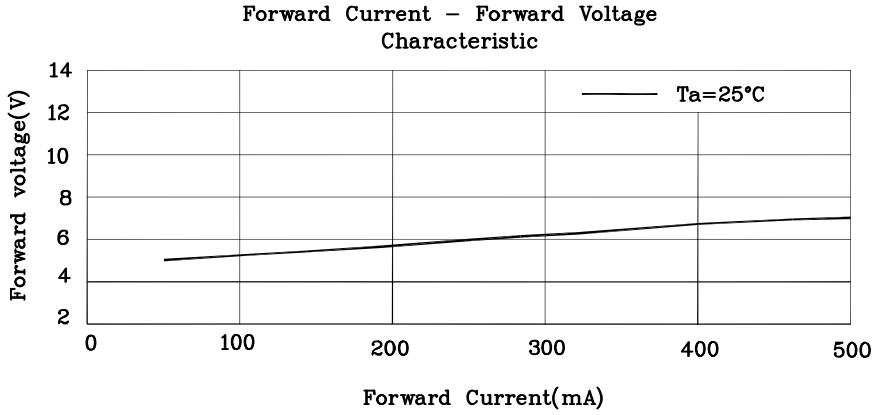
Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

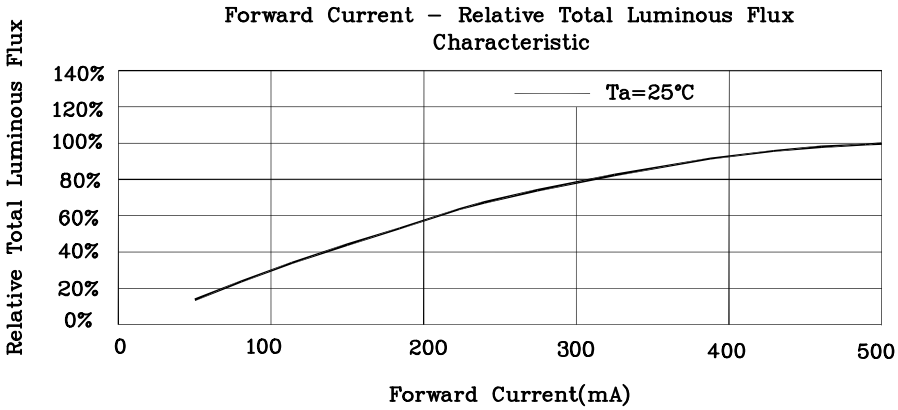
Electrical / Optical Characteristics

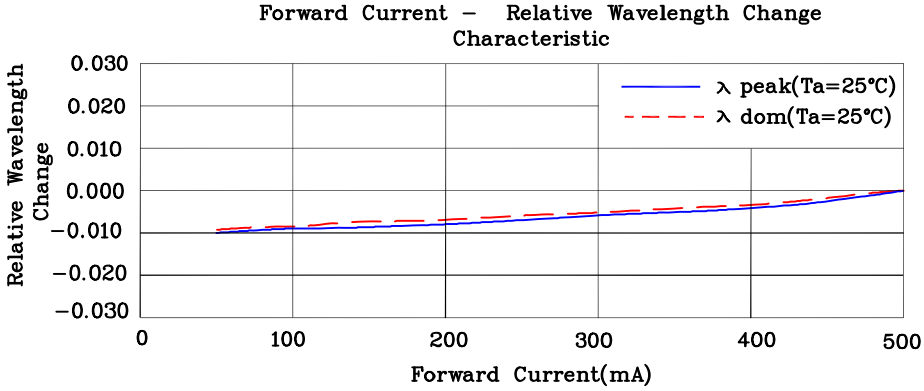
Part Name	Device	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
XZMYLA112S5W-A	Yellow	Forward Voltage [2]	V_F	5.6	7.0	8.6	V	I_F=500mA
		Luminous Flux CIE127-2007*[3]	Φ_V	90*	119.5*		lm	I_F=500mA
		Wavelength at peak emission CIE127-2007*[4]	λpeak	-	590*	-	nm	I_F=500mA
		Dominant Wavelength CIE127-2007*	λdom	-	590*	-	nm	I_F=500mA
		Spectral bandwidth at 50%ΦREL MAX	Δλ1/2	-	20	-	nm	I_F=500mA
		Temperature coefficient of λpeak	TCλpeak	-	0.13	-	nm/°C	I_F=500mA
		Temperature coefficient of λdom	TCλdom	-	0.10	-	nm/°C	I_F=500mA
		Temperature coefficient of Forward Voltage	$\Delta\lambda V_F/\Delta T$	-	-2.3	-	mV/°C	I_F=500mA
		Thermal Resistance	$R_{th\ j\text{-}c}$	-	120	-	°	I_F=500mA
			2q1/2 x direction	-	120	-	°	I_F=500mA

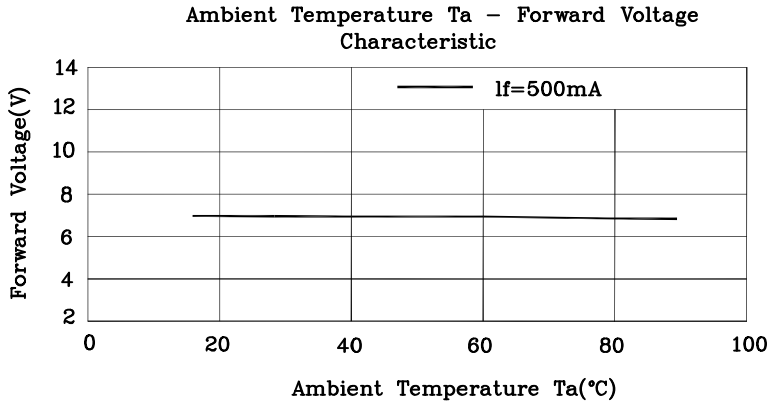
Notes:
2. Forward Voltage is measured with an accuracy of +/-0.1V.
3. Flux is measured with an accuracy of +/-15%.
4. Wavelength :+/-0.1nm.
*Luminous Flux value and wavelength are in accordance with CIE127-2007 standards.

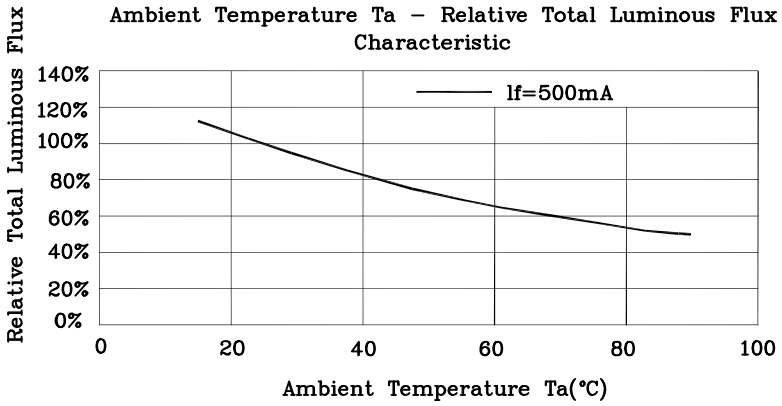
Test Item	Test Condition
Moisture-proof Test	85°C , 85%RH for 1000 hours

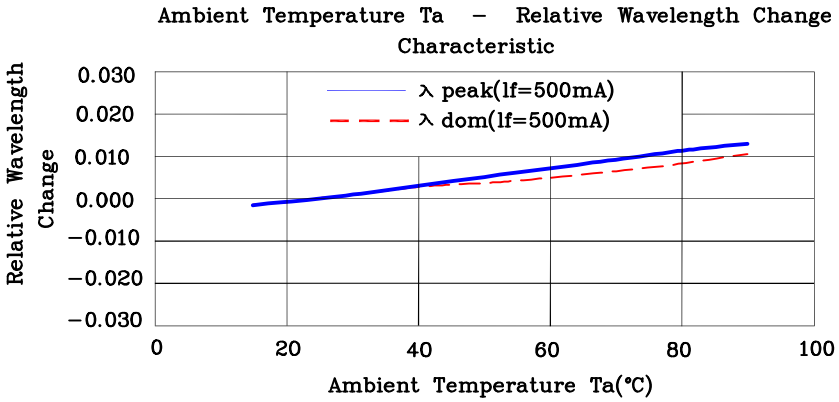

Forward Current – Forward Voltage Characteristic
Forward voltage(V)
14
12
10
8
6
4
2
0
100
200
300
400
500
Forward Current(mA)
Ta=25°C

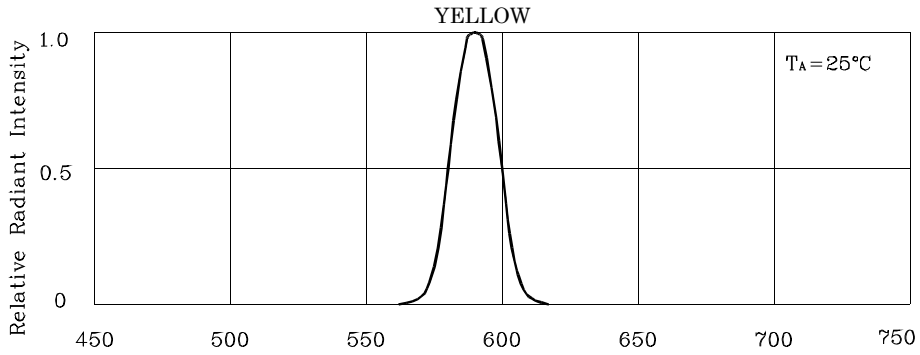

Forward Current – Relative Total Luminous Flux Characteristic
Relative Total Luminous Flux
140%
120%
100%
80%
60%
40%
20%
0%
0
100
200
300
400
500
Forward Current(mA)
Ta=25°C


Forward Current – Relative Wavelength Change Characteristic
Relative Wavelength Change
0.030
0.020
0.010
0.000
−0.010
−0.020
−0.030
0
100
200
300
400
500
Forward Current(mA)
λ peak(Ta=25°C)
λ dom(Ta=25°C)

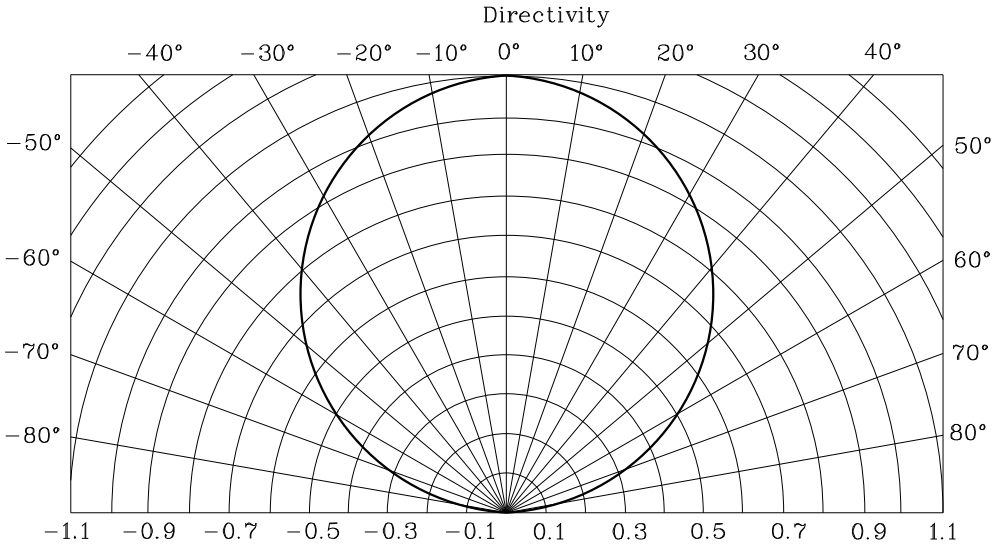

Ambient Temperature Ta – Forward Voltage Characteristic
If=500mA
Forward Voltage(V)
14
12
10
8
6
4
2
0
20
40
60
80
100
Ambient Temperature Ta(℃)


Ambient Temperature Ta – Relative Total Luminous Flux Characteristic
If=500mA
Relative Total Luminous Flux
140%
120%
100%
80%
60%
40%
20%
0%
0
20
40
60
80
100
Ambient Temperature Ta(℃)


Ambient Temperature Ta – Relative Wavelength Change Characteristic
λ peak(If=500mA)
λ dom(If=500mA)
Relative Wavelength Change
0.030
0.020
0.010
0.000
−0.010
−0.020
−0.030
0
20
40
60
80
100
Ambient Temperature Ta(℃)



RELATIVE INTENSITY Vs. CIE WAVELENGTH

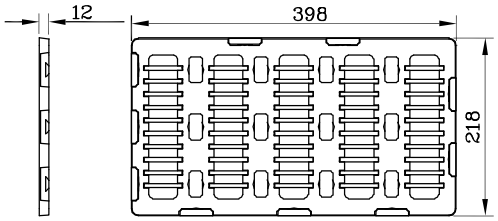


PACKING & LABEL SPECIFICATIONS

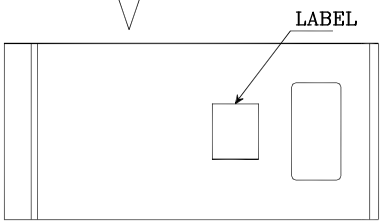
PACKING & LABEL SPECIFICATION

(1) Primary packing
50 pieces are contained in each tray.
Two trays which collectively contain 100 pieces are stacked together with an additional empty tray as lid.
Tray (Dimensions: 398x218x12mm, materials: electrically conductive PS.)

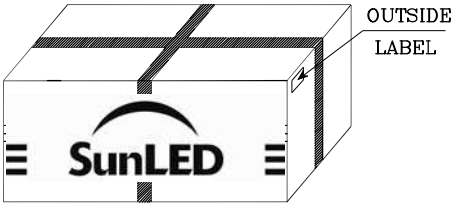
(2) Secondary packing
A set of three trays is placed in bag. (100 pieces per bag.)
An indication label which specifies product name,quantity,lot number and shipment date is attached to the outside of the 9# box.(800 pieces per box.)



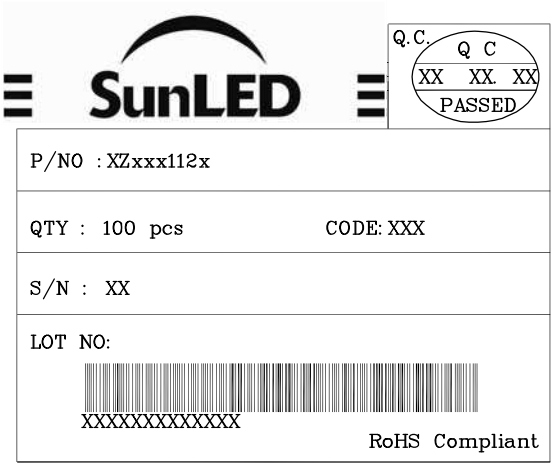
PRODUCT 50PCS/TRAY



100PCS / BAG



300 PCS / BOX



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 contents within this document may not be altered without prior consent by SunLED.
6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp

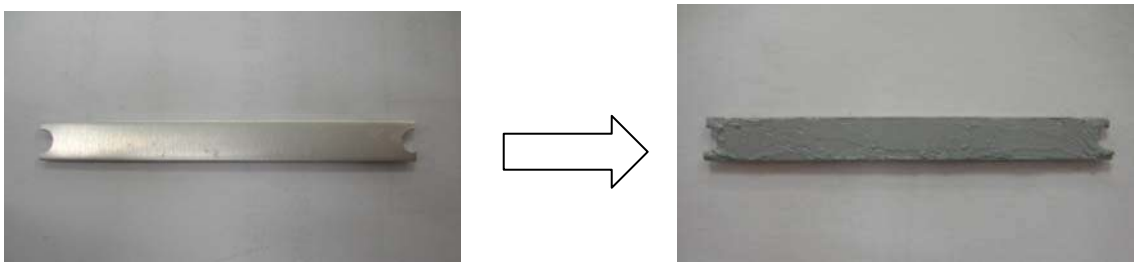
XZxxx112x-A Application Note

Introduction

The XZxxx112x-A LED strips provide very high light output, and can be configured to suit a wide rage of applications. However the heat generated during operation, if not handled properly, could shorten the product life significantly. Therefore for optimal performance, proper thermal management should be incorporated to keep it below the rated temperature. This document describes the heat sink attachment procedure.

Attachment to Heat sink

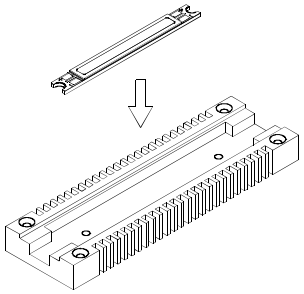
1. Apply a thin layer (0.1 ~ 0.2 mm) of thermal grease on the bottom of the XZxxx112x-A LED strip.



Rear surface

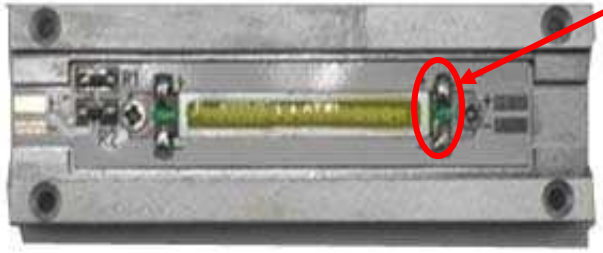
Thermal glue on rear surface

2. Press the XZxxx112x-A LED strip firmly on the heat sink to ensure good contact between the heat sink and the LED strip. A guide for heat sink size selection at various driving currents is listed in the table below.



3. A specifically designed electronic circuit is required to power the LED strip. Do not connect the product directly to the main power.

Current (mA)	350	500	600	700
Heat sink surface area (mm^2)	10,000	15,000	17,000	21,000



It is strongly recommended that temperature of pad be not highter than 75°C when you use the product.