

PRELIMINARY SPEC

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



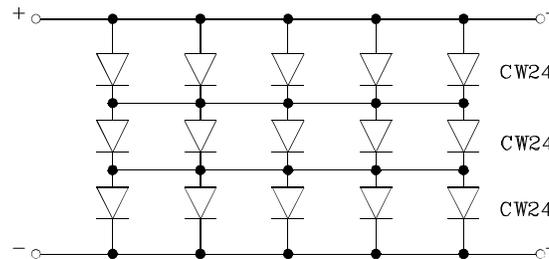
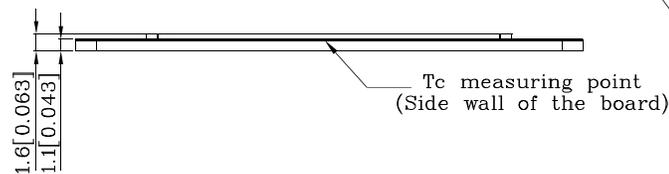
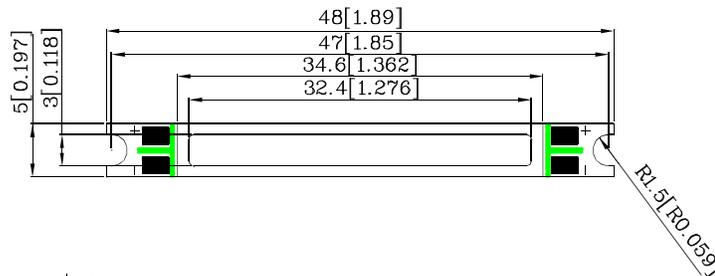
Description

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.

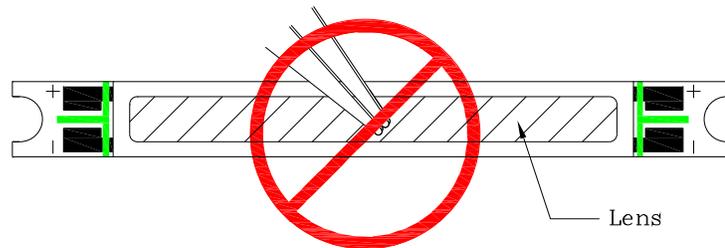


Notes:

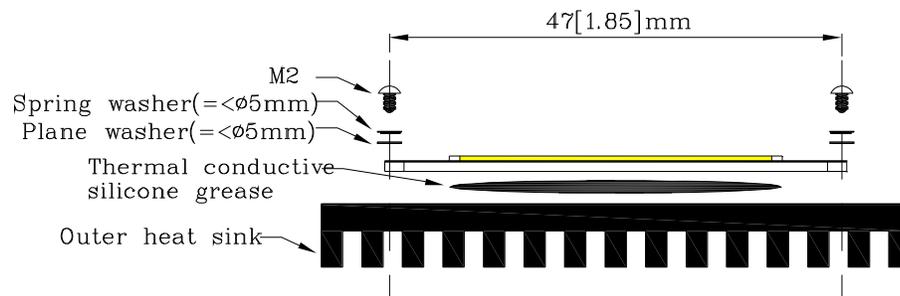
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

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.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Units
Forward Current	IF	700	mA
Forward Pulse Current [1]	IFP	1000	mA
Power Dissipation	Pd	8.12	W
LED Junction Temperature	Tj	110	°C
Operating Temperature	Topr	-30~+100	°C
Storage Temperature	Tstg	-40~+110	°C
Case Temperature	Tc	100	°C

Note:

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

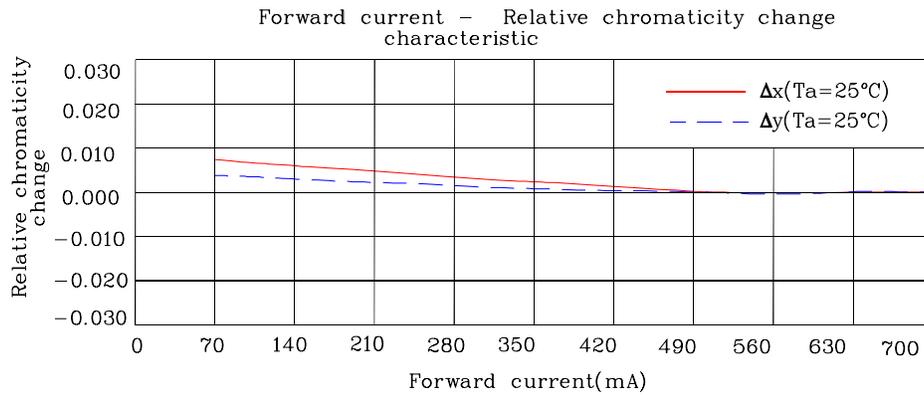
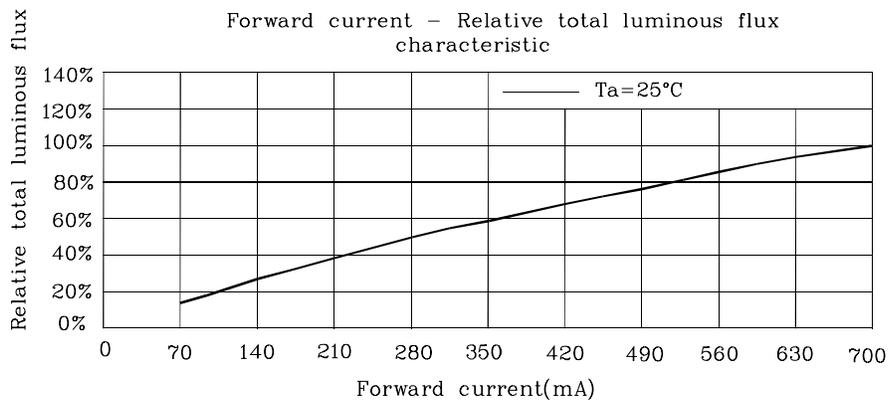
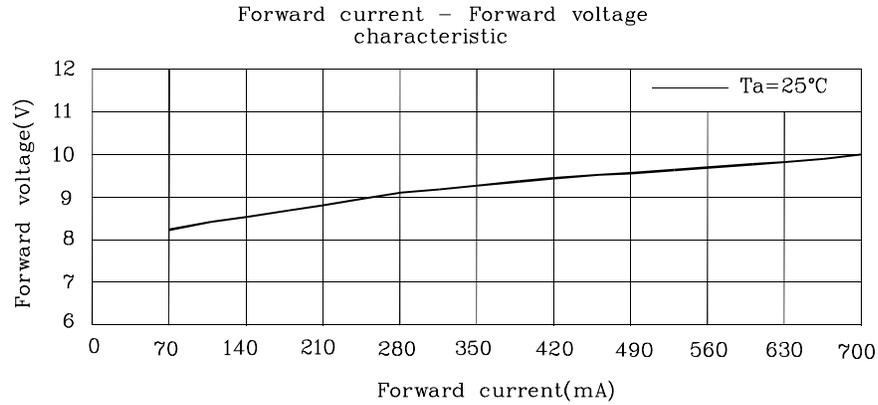
Electrical / Optical Characteristics

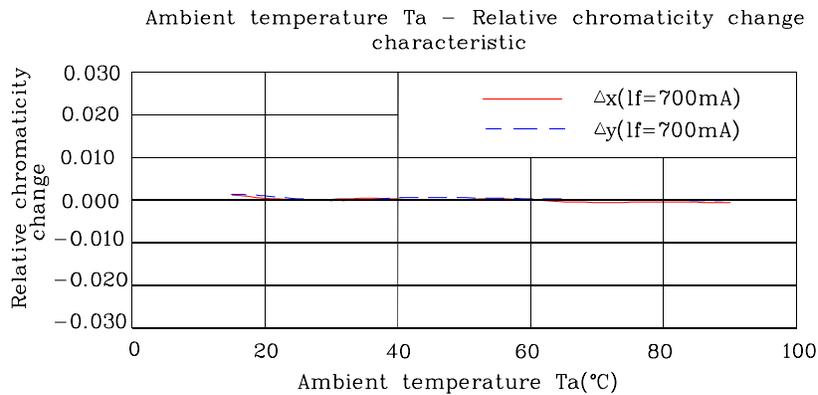
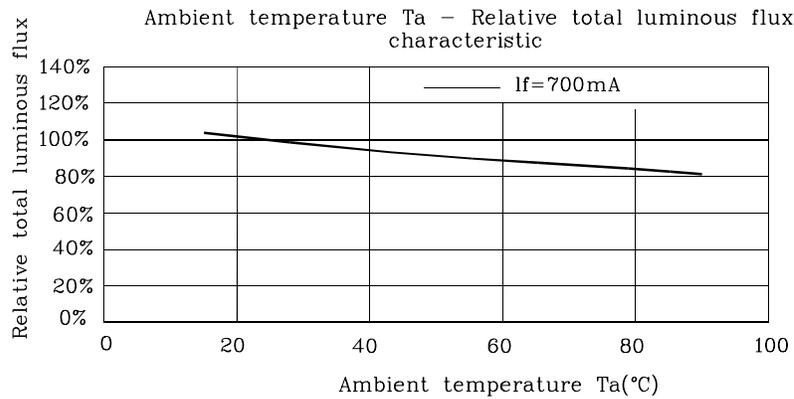
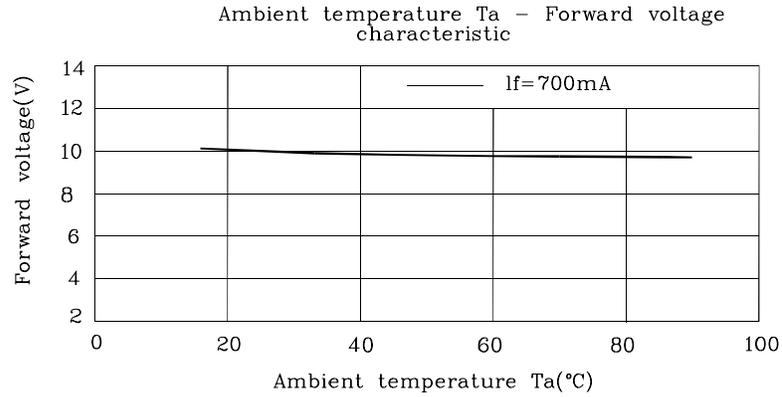
Part Name	Device	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
XZCW24X112S7W-A	White	Forward Voltage [2]	VF	8.6	10	11.6	V	IF=700mA
		Luminous Flux [3]	Φv	280	350	-	lm	IF=700mA
		Color Temperature [4]	CCT	-	6500	-	K	IF=700mA
		Temperature Coefficient of Forward Voltage	ΔVF/ΔT	-	-2.9	-	mV/°C	IF=700mA
		Thermal Resistance	Rth j-c	-	3.5	-	°C/W	IF=700mA
		Emission Angle	2 θ 1/2 X direction	-	120	-	°	IF=700mA
2 θ 1/2 Y direction	-		120	-	°	IF=700mA		

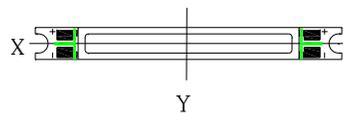
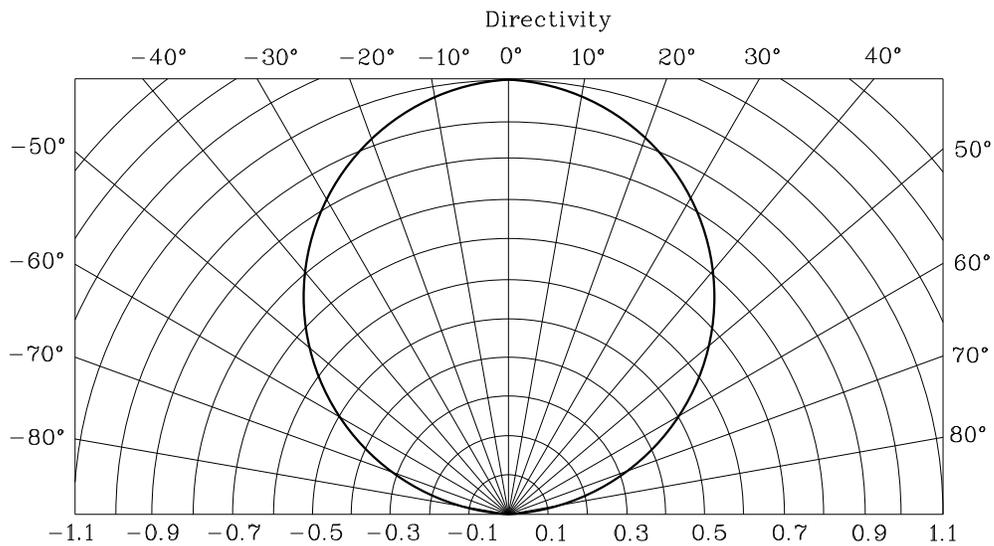
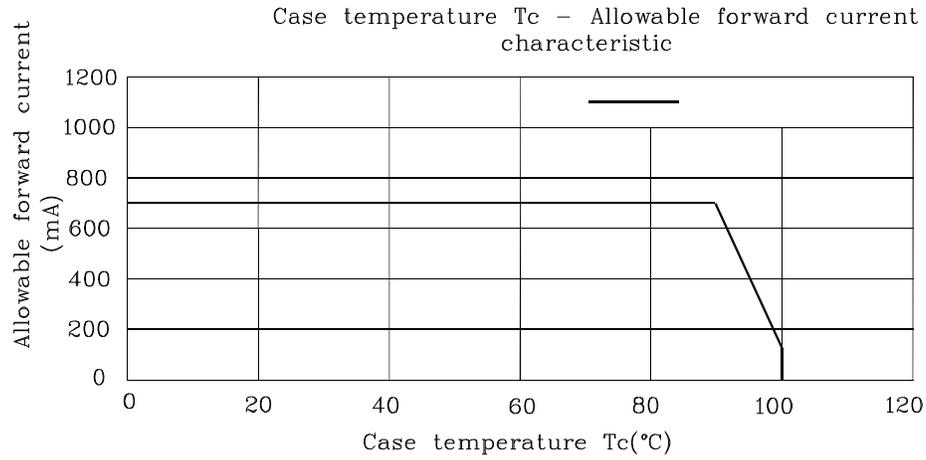
Notes:

2. Forward Voltage is measured with an accuracy of +/-0.1V.
3. Flux is measured with an accuracy of +/-15%.
4. CCT selection acc.to CCT groups and an accuracy of +/-300K.

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





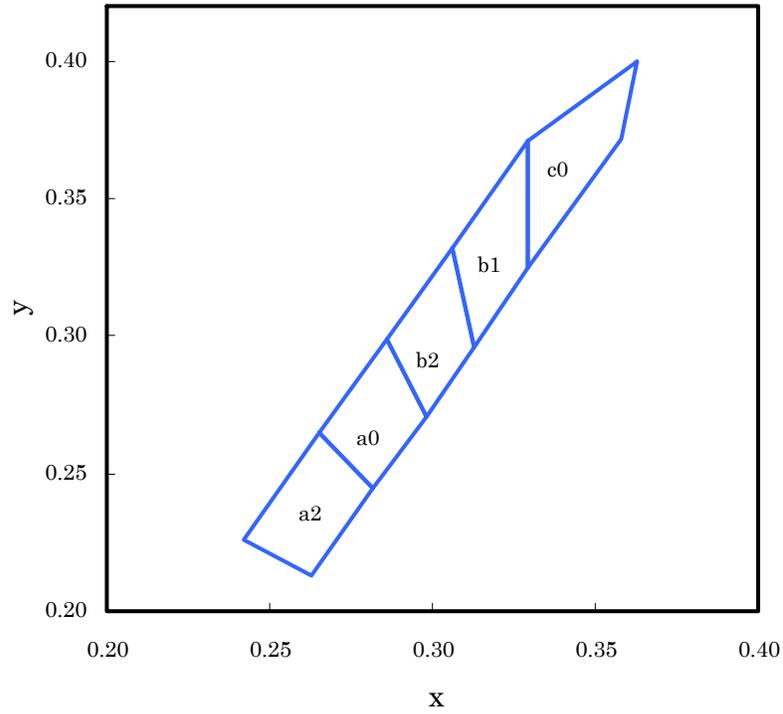


— X Direction
— Y Direction

XZCW24X112S7W-A

Chromaticity Coordinates (Condition:IF=700mA Ta=25°C)

White CIE



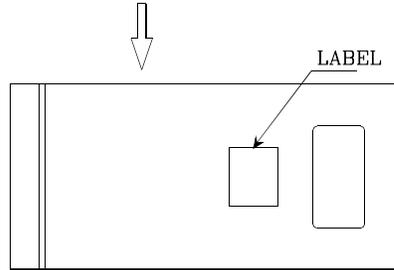
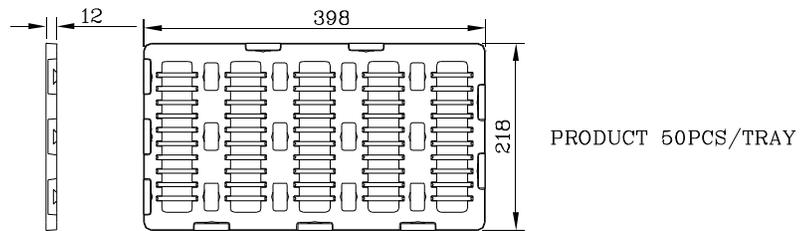
	x	y		x	y		x	y
a2	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

PACKING & LABEL SPECIFICATIONS

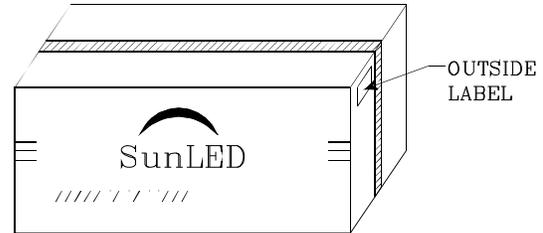
XZCW24X112S7W-A

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.)



100PCS / BAG



800 PCS / BOX



	Q.C. Q C XX XX XX PASSED
P/NO : XZxxx112x	
QTY : 100 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 XXXXXXXXXXXXX	
RoHS Compliant	

XZxxx112x-A Application Note

Introduction

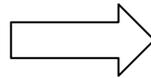
The XZxxx112x-A LED strips provide very high light output, and can be configured to suit a wide range of applications. However the heat generated during operation, if not handled properly, could shorten the product life significantly. Therefore for optimal performance, proper thermal management should 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.

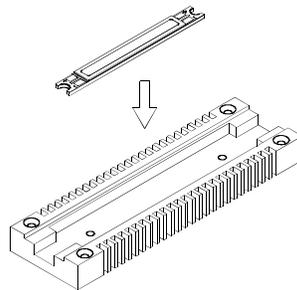


Rear surface



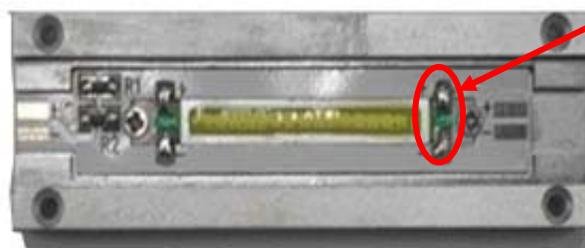
Thermal glue on rear surface

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 higher than 75°C when you use the product.