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

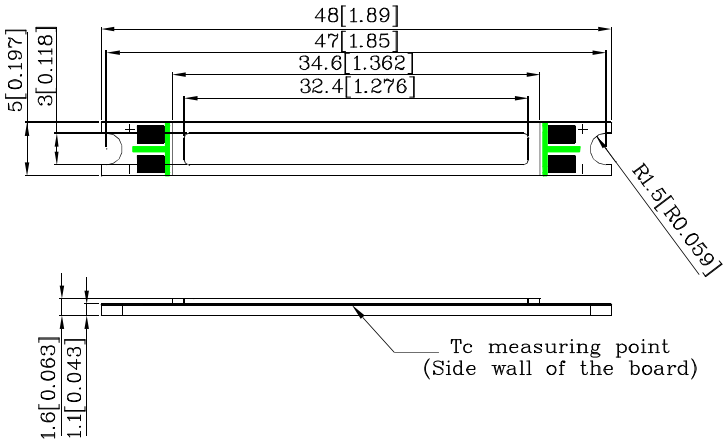
Ceiling lights.

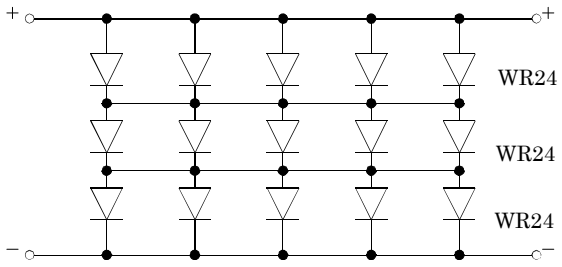
Contour lights.

Decoration lights.

General lighting.

Architectural lighting.



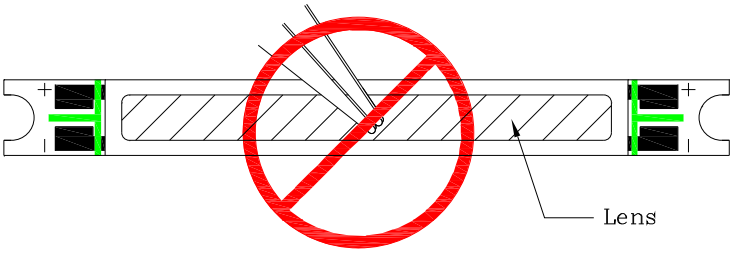


Notes:

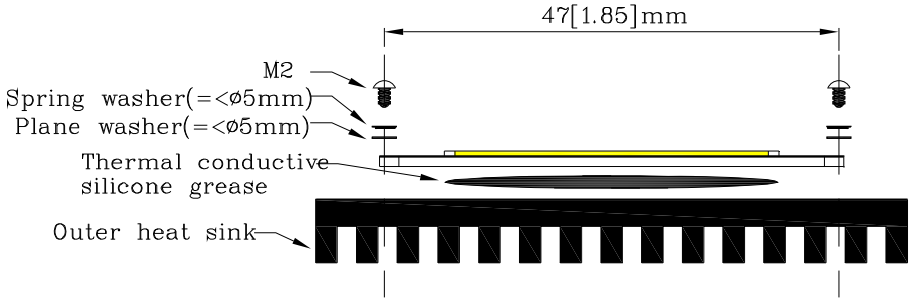
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

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	I_F	700	mA
Forward Pulse Current [1]	I_{FP}	1000	mA
Power Dissipation	P_d	8.12	W
LED Junction Temperature	T_j	110	°C
Operating Temperature	Topr	-30~+100	°C
Storage Temperature	Tstg	-40~+110	°C
Case Temperature	T_c	100	°C

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

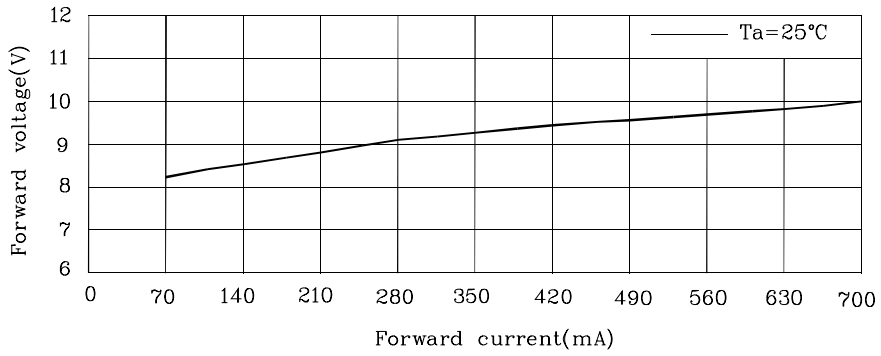
Electrical / Optical Characteristics

Part Name	Device	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
XZWR24X112S7WWB-A	WARM WHITE	Forward Voltage [2]	V_F	8.6	10	11.6	V	I_F=700mA
		Luminous Flux [3]	Φv	240	300	-	lm	I_F=700mA
		Color Temperature [4]	CCT	2870	3000	3220	K	I_F=700mA
		Temperature Coefficient of Forward Voltage	Δ VF/Δ T	-	-2.9	-	mV/°C	I_F=700mA
		Thermal Resistance	$R_{th\ j\text{-}c}$	-	3.5		°C/W	I_F=700mA
		Emission Angle	2 θ 1/2 X direction	-	120	-	°	I_F=700mA
			2 θ 1/2 Y direction	-	120	-	°	I_F=700mA

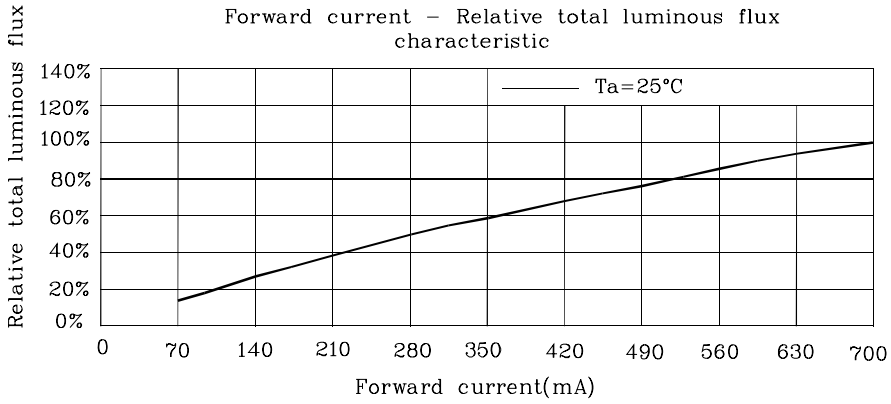
Notes:
2. Forward Voltage is measured with an accuracy of +/-0.1V.
3. Flux is measured with an accuracy of +/-15%.
4. CCT selection acc.to CCT groups and an accuracy of +/-300K.

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

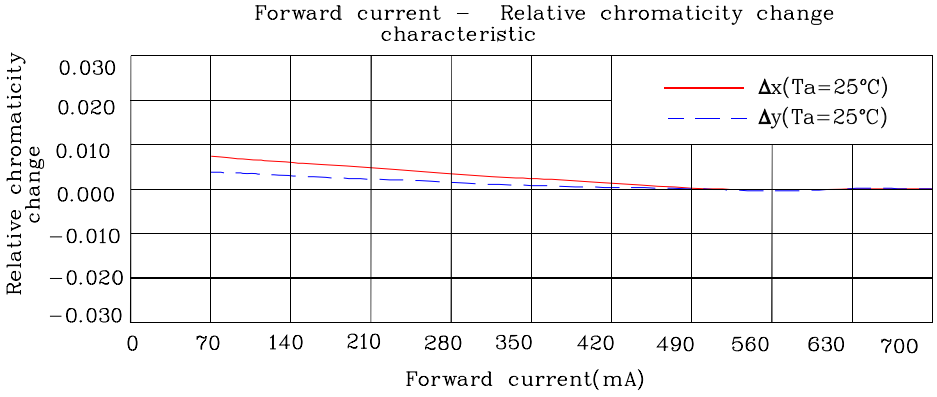
Forward current – Forward voltage characteristic



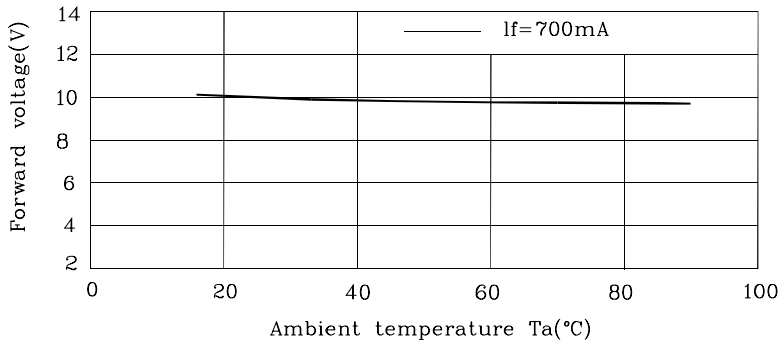
Forward current – Relative total luminous flux characteristic



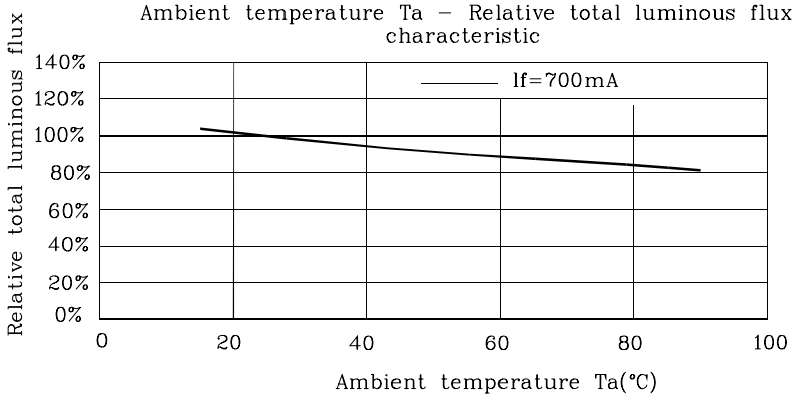
Forward current – Relative chromaticity change characteristic



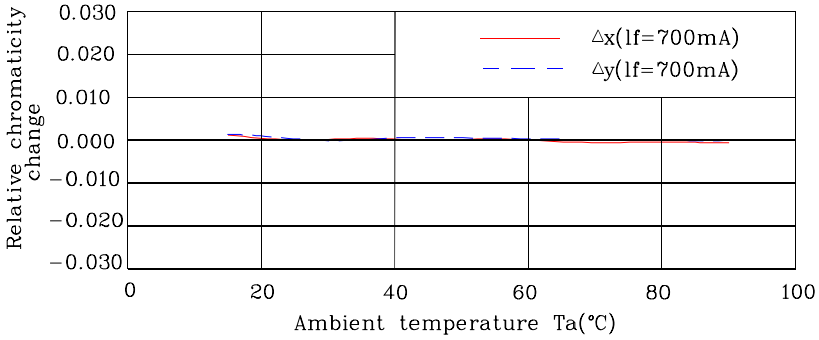
Ambient temperature Ta – Forward voltage characteristic

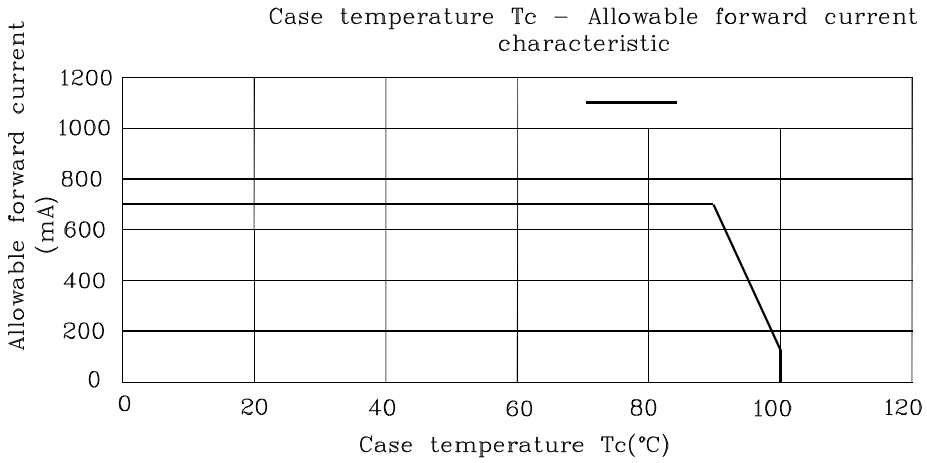


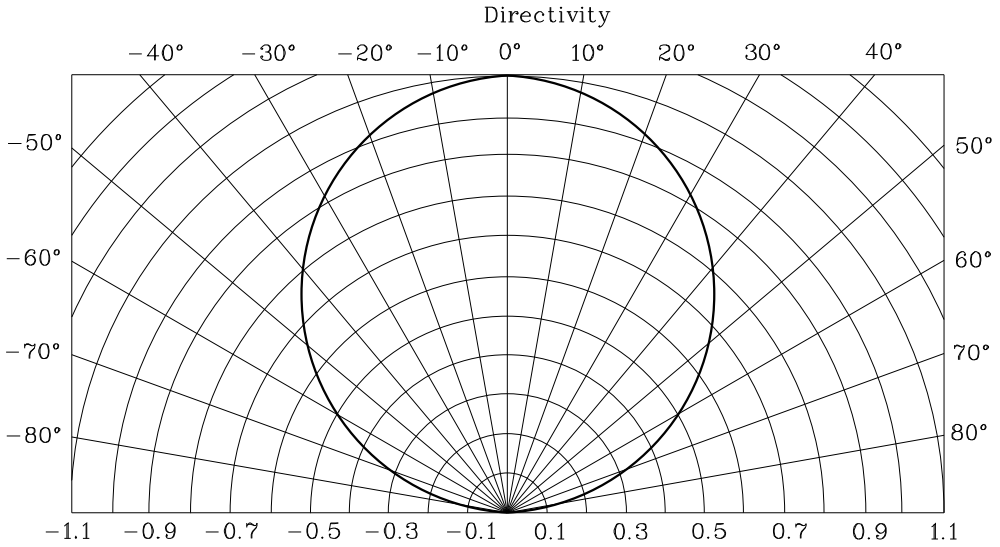
Ambient temperature Ta – Relative total luminous flux characteristic



Ambient temperature Ta – Relative chromaticity change characteristic

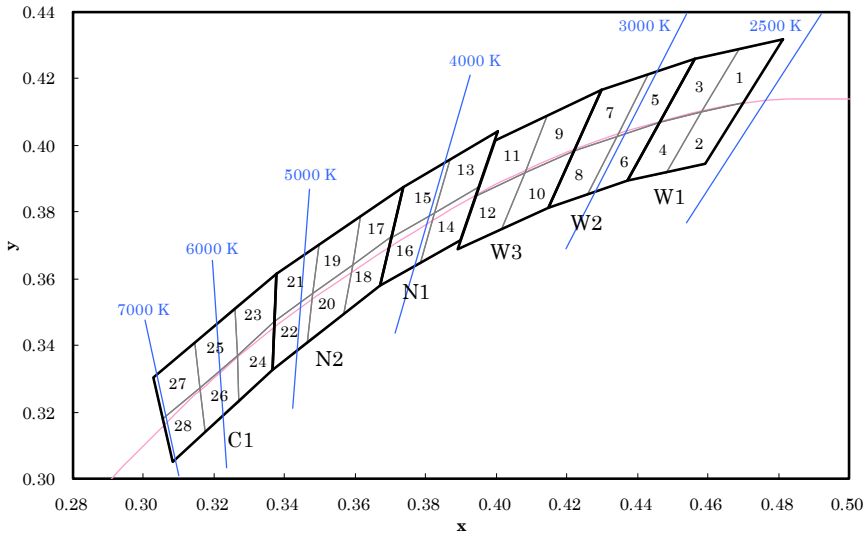



Case temperature Tc – Allowable forward current characteristic
Allowable forward current (mA)
1200
1000
800
600
400
200
0
0
20
40
60
80
100
120
Case temperature Tc(℃)


Directivity
−40°
−30°
−20°
−10°
0°
10°
20°
30°
40°
−50°
−60°
−70°
−80°
50°
60°
70°
80°
−1.1
−0.9
−0.7
−0.5
−0.3
−0.1
0.1
0.3
0.5
0.7
0.9
1.1


X
Y
X Direction
Y Direction

CCT 2500-7000 K Bin Code



Group	Chromaticity Regions	CCT (K) Min.	Typ.	Max.
W1	1, 2, 3, 4	2580	2700	2870
W2	5, 6, 7, 8	2870	3000	3220
W3	9, 10, 11, 12	3220	3500	3710
N1	13, 14, 15, 16	3710	4000	4260
N2	17, 18, 19, 20, 21, 22	4260	4700	5310
C1	23, 24, 25, 26, 27, 28	5310	6000	7040

Notes:
Shipment may contain more than one chromaticity regions.
Orders for single chromaticity region are generally not accepted.

	x	y		x	y		x	y		x	y
1	0.4582	0.4099	8	0.4147	0.3814	15	0.3702	0.3722	22	0.3481	0.3557
	0.4687	0.4289		0.4221	0.3984		0.3736	0.3874		0.3370	0.3472
	0.4813	0.4319		0.4342	0.4028		0.3869	0.3958		0.3364	0.3328
	0.4700	0.4126		0.4259	0.3853		0.3825	0.3798		0.3466	0.3411
2	0.4483	0.3919	9	0.4080	0.3916	16	0.3670	0.3578	23	0.3376	0.3616
	0.4582	0.4099		0.4146	0.4089		0.3702	0.3722		0.3260	0.3512
	0.4700	0.4126		0.4299	0.4165		0.3825	0.3798		0.3265	0.3371
	0.4593	0.3944		0.4221	0.3984		0.3783	0.3646		0.3370	0.3472
3	0.4465	0.4071	10	0.4017	0.3751	17	0.3736	0.3874	24	0.3370	0.3472
	0.4562	0.4260		0.4080	0.3916		0.3616	0.3788		0.3265	0.3371
	0.4687	0.4289		0.4221	0.3984		0.3592	0.3641		0.3270	0.3230
	0.4582	0.4099		0.4147	0.3814		0.3703	0.3726		0.3364	0.3328
4	0.4373	0.3893	11	0.3941	0.3848	18	0.3703	0.3726	25	0.3260	0.3512
	0.4465	0.4071		0.3996	0.4015		0.3592	0.3641		0.3144	0.3408
	0.4582	0.4099		0.4146	0.4089		0.3568	0.3495		0.3160	0.3274
	0.4483	0.3919		0.4080	0.3916		0.3670	0.3578		0.3265	0.3371
5	0.4342	0.4028	12	0.3889	0.3690	19	0.3616	0.3788	26	0.3265	0.3371
	0.4430	0.4212		0.3941	0.3848		0.3496	0.3702		0.3160	0.3274
	0.4562	0.4260		0.4080	0.3916		0.3481	0.3557		0.3175	0.3139
	0.4465	0.4071		0.4017	0.3751		0.3592	0.3641		0.3270	0.3230
6	0.4259	0.3853	13	0.3825	0.3798	20	0.3592	0.3641	27	0.3144	0.3408
	0.4342	0.4028		0.3869	0.3958		0.3481	0.3557		0.3028	0.3304
	0.4465	0.4071		0.4006	0.4044		0.3466	0.3411		0.3055	0.3177
	0.4373	0.3893		0.3950	0.3875		0.3568	0.3495		0.3160	0.3274
7	0.4221	0.3984	14	0.3783	0.3646	21	0.3496	0.3702	28	0.3160	0.3274
	0.4299	0.4165		0.3825	0.3798		0.3376	0.3616		0.3055	0.3177
	0.4430	0.4212		0.3950	0.3875		0.3370	0.3472		0.3081	0.3049
	0.4342	0.4028		0.3898	0.3716		0.3481	0.3557		0.3175	0.3139

PACKING & LABEL SPECIFICATIONS XZWR24X112S7WWB-A

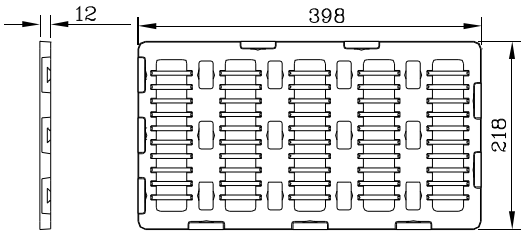
PACKING & LABEL SPECIFICATION

(1) Primary packing

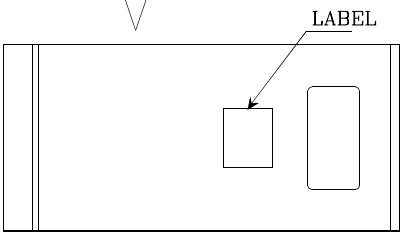
50 pieces are contained in each tray.
Two trays which collectively contain 100 pieces are stacked together with an additional empty tray as lid.
Tray (Dimensions: 398x218x12mm, materials: electrically conductive PS.)

(2) Secondary packing

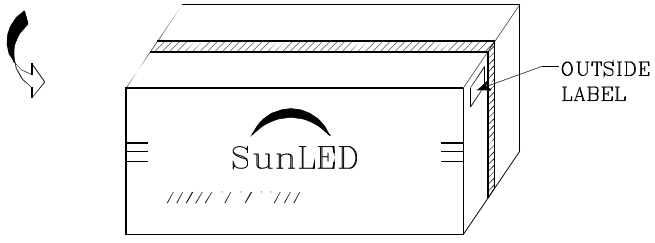
A set of three trays is placed in bag. (100 pieces per bag.)
An indication label which specifies product name,quantity,lot number and shipment date is attached to the outside of the 9# box.(800 pieces per box.)



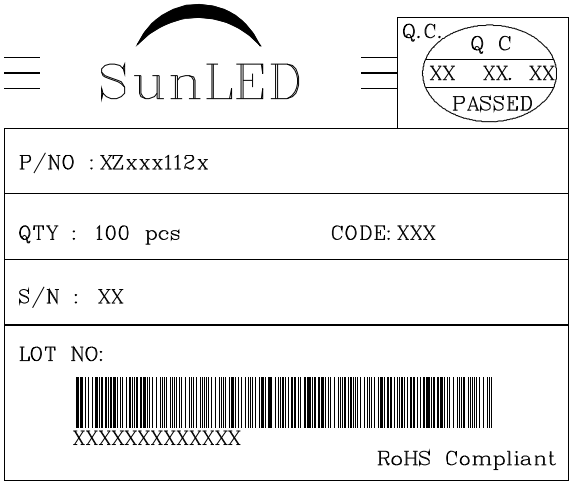
PRODUCT 50PCS/TRAY



100PCS / BAG



800 PCS / BOX



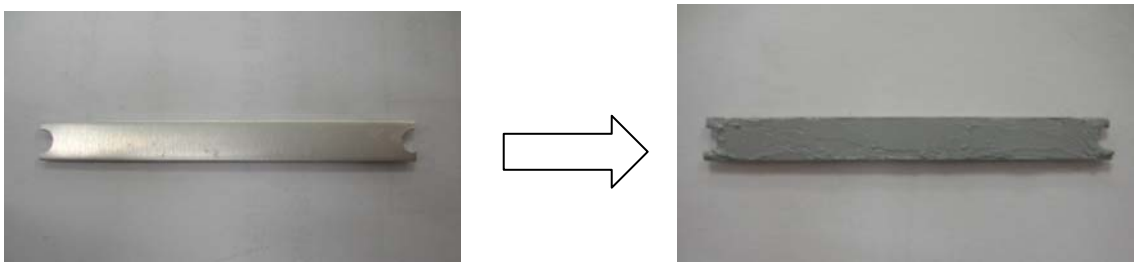
XZxxx112x-A Application Note

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.

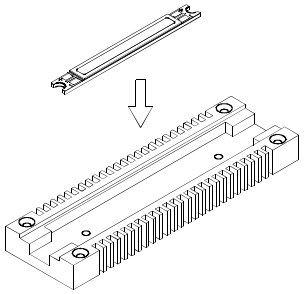
Attachment to Heat sink

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



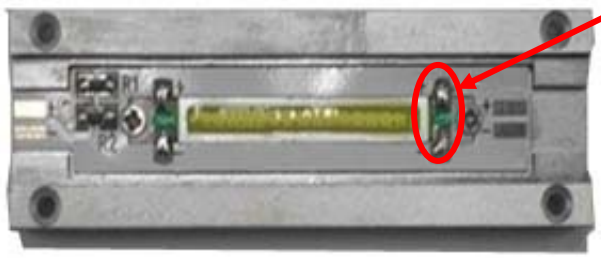
Rear surface　　Thermal glue on rear surface

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.