



THE DATASHEET OF 519-1SURSYGW/S530-A3





EVERLIGHT ELECTRONICS CO.,LTD.

DATA SHEET

PART NO. : 519-1SURSYGW/S530-A3

DATE : 2003/5/25

DEPARTMENT : CHR&D1

REVISION : 1

RECEIVED			
☒ MASS PRODUCTION			
☐ PRELIMINARY			
☐ CUSTOMER DESIGN			
DEVICE NUMBER : CDLE-051-136			
PAGE : 7			
CUSTOMER	DESIGNER	CHECKER	APPROVER
			

REV.	DESCRIPTION	RELEASE DATE

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Technical Data Sheet**2.0*5.0mm Multi-Color Rectangle Type LED Lamps****519-1SURSYGW/S530-A3****■ Features :**

- Two chips are matched for uniform light output, wide viewing angle
- Long life-solid state reliability
- I.C. compatible/Low power consumption

**■ Descriptions :**

- The 519-1 LED lamp contain two integral chips and is available as both bicolor and bipolar types.
- The Hyper Red and Super yellow Green light is emitted by diodes of AlGaInP and AlGaInP respectively.
- Type of bipolar lamps are both White Diffused and Color Diffused while the bicolor are White Diffused

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

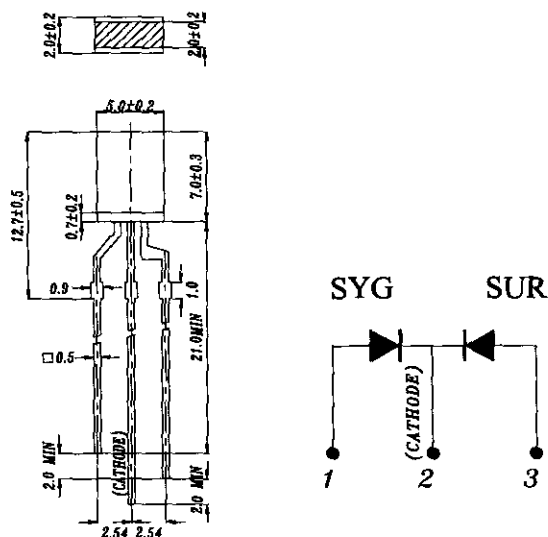
PART NO.	Chip		Lens Color
	Material	Emitted Color	
519-1SURSYGW/S530-A3	AlGaInP	Hyper Red	White Diffused
	AlGaInP	Super Yellow Green	

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Package Dimensions



Notes: 1. All dimensions are in millimetres

2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.

3. Tolerances unless Dimension ± 0.25 mm.

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating		Unit
Forward Current	I_F	SURW/S530	25	mA
		SYGW/S530	25	
Operating Temperature	T_{opr}	-40 to +85		$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +100		$^\circ\text{C}$
Soldering Temperature	T_{sol}	260 ± 5		$^\circ\text{C}$
Electrostatic Discharge	ESD	2000		V
Power Dissipation	P_d	SURW/S530	60	mW
		SYGW/S530	60	
Peak Forward Current (Duty 1/10 @ 1KHz)	$I_F(\text{Peak})$	SURW/S530	160	mA
		SYGW/S530	160	
Reverse Voltage	V_R	5		V



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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	SURW/S530	6.3	12.5	/	IF= 20 mA
		SYGW/S530	2.50	5.00	/	
Viewing Angle	2θ 1/2	/	180	/	deg	IF= 20 mA
Peak Wavelength	λp	SURW/S530	/	632	/	IF= 20 mA
		SYGW/S530	/	575	/	
Dominant Wavelength	λd	SURW/S530	/	624	/	IF= 20 mA
		SYGW/S530	/	573	/	
Spectrum Radiation Bandwidth	Δλ	SURW/S530	/	20	/	IF= 20 mA
		SYGW/S530	/	20	/	
Forward Voltage	VF	SURW/S530	/	2.0	2.4	IF= 20 mA
		SYGW/S530	/	2.0	2.4	
Reverse Current	IR	/	/	10	μA	VR= 5 V

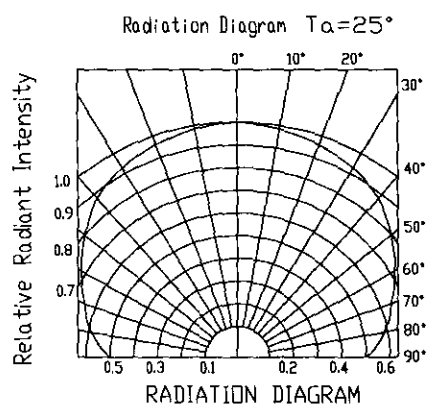
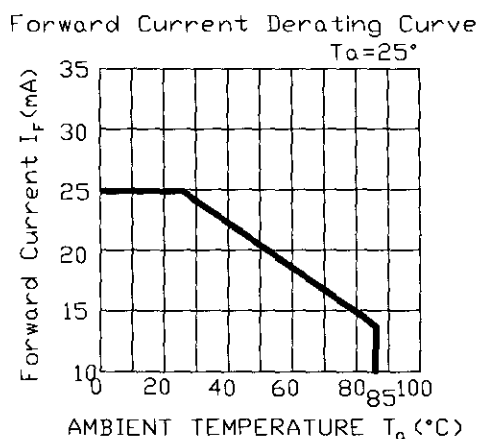
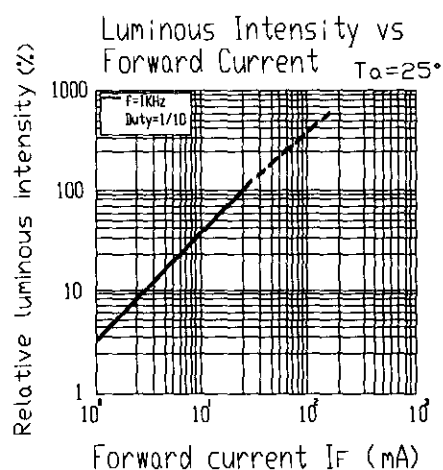
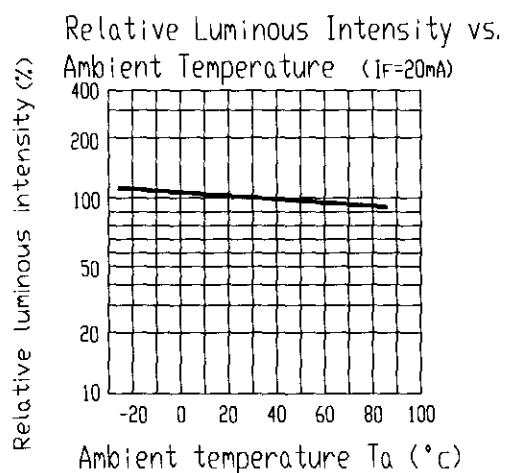
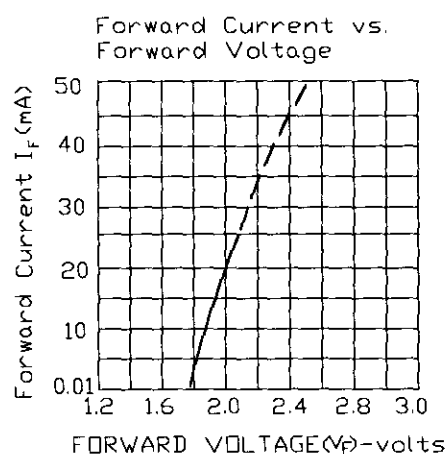
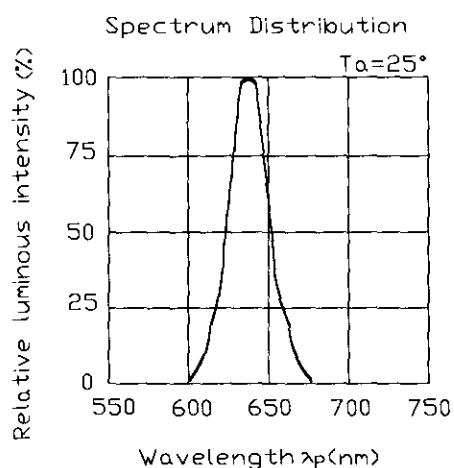
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Typical Electro-Optical Characteristic Curves:

(SUR)



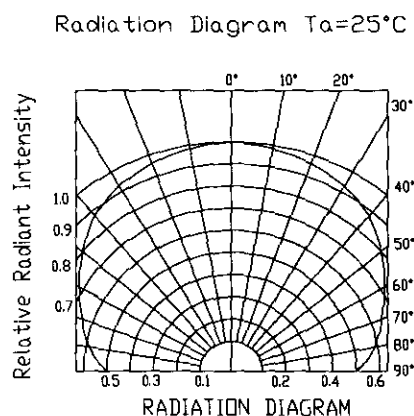
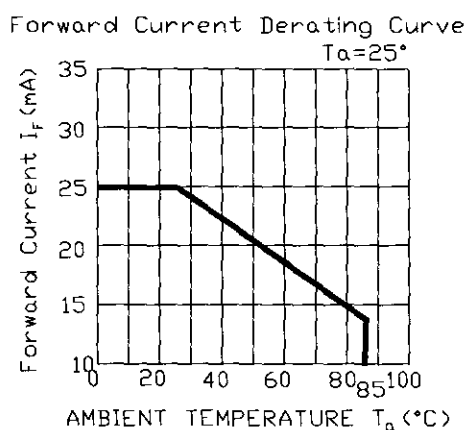
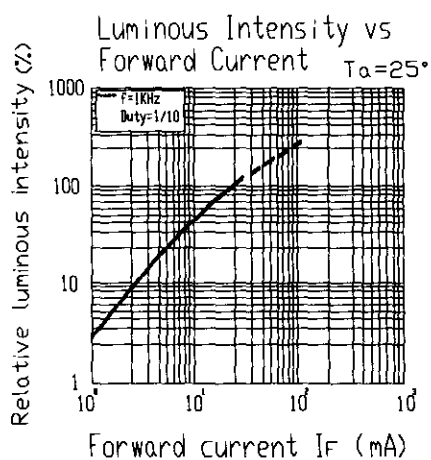
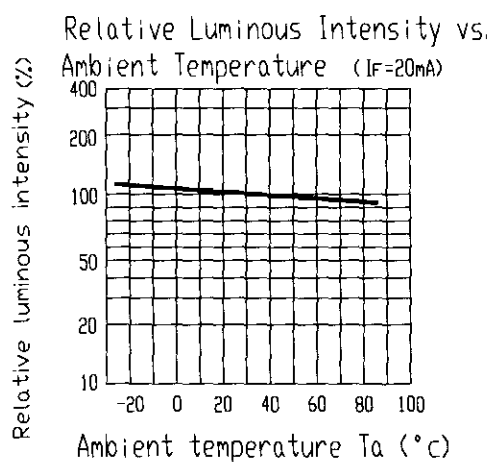
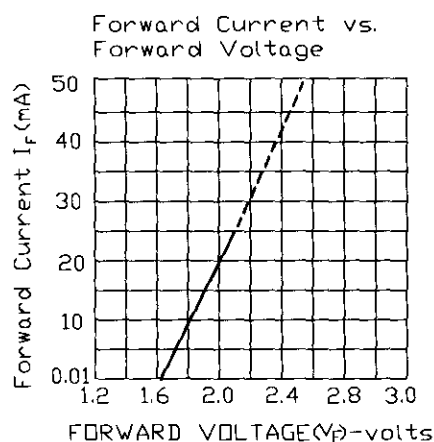
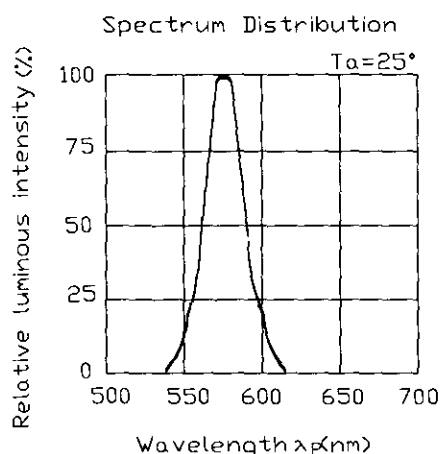
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Typical Electro-Optical Characteristic Curves:

(SYG)



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■ Reliability test items and conditions:

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	10 SEC	76 PCS	0/1
2	Temperature Cycle	H : +100°C 15min ↓ 5 min L : -40°C 15min	300 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ↓ 10 sec L : -10°C 5min	300 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -40°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	TEMP : 25°C If = 20mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C / 85% RH	1000 HRS	76 PCS	0/1



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Packing Quantity Specification

1.500PCS/1Bag , 6Bags/1Box

2.10Boxes/1Carton

Label Form Specification

EVERLIGHT

CPN:

P/N:



519-1SURSYGW/S530-A3

QTY:



LOT NO: EL

CAT:

HUE:

REF:

MADE IN TAIWAN

CPN: Customer' s Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak Wavelength

REF: Reference

LOT No: Lot Number

MADE IN TAIWAN: Production Place

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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Device Number : CDLE-051-136

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Prepared date: 2003/5/25

Rev.: 1

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Prepared by: Linchuansheng

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