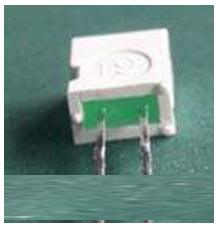
Technical Data Sheet

3.68*6.22mm Rectangular Legend LED Lamps

1003SYGD/S530-E2/F14-9/S1339



Features :

- Choice of various viewing angles
- Available on tape and reel.
- Reliable and robust
- Pb free
- The product itself will remain within RoHS compliant version.

Descriptions :

- The series is specially designed for applications requiring higher brightness
- The led lamps are available with different colors, intensities.

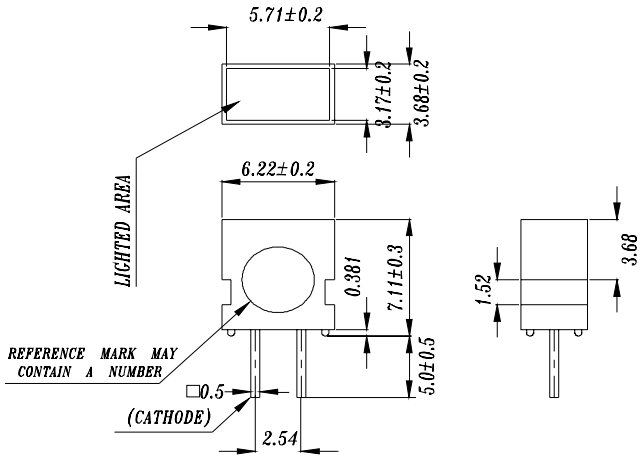
Applications :

- TV set
- Monitor
- Telephone
- Computer

PART NO.	Material	Emitted Color	Lens Color
1003SYGD/S530-E2/F14-9/S1339	AlGaInP	Brilliant Yellow Green	Green Diffused

1003SYGD/S530-E2/F14-9/S1339

Package Dimensions



Notes: 1. All dimensions are in millimetres
2. The height of flange must be less than 1.5mm(0.059").
3. Without special declared,the tolerance is±0.25mm.

■ Absolute Maximum Ratings at Ta = 25℃

Parameter	Symbol	Rating	Unit
Forward Current	IF	25	mA
Operating Temperature	Topr	-40 to +85	℃
Storage Temperature	Tstg	-40 to +100	℃
Soldering Temperature	**Tsol**	**260**	℃
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	mW
Peak Forward Current	IF(Peak)	60	mA
Reverse Voltage	VR	5	V

Note: *1:Soldering time ≦ 5 seconds.

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Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	I_F= 20 mA	／	2.0	2.4	V
Reverse Current	IR	V_R= 5 V	／	／	10	μA
Luminous Intensity	Iv	I_F= 20 mA	6.3	12.5	／	mcd
Viewing Angle	2θ1/2	I_F= 20 mA	／	110	／	deg
Peak Wavelength	λp	I_F= 20 mA	／	575	／	nm
Dominant Wavelength	λd	I_F= 20 mA	／	573	／	nm
Spectrum Radiation Bandwidth	△λ	I_F= 20 mA	／	20	／	nm

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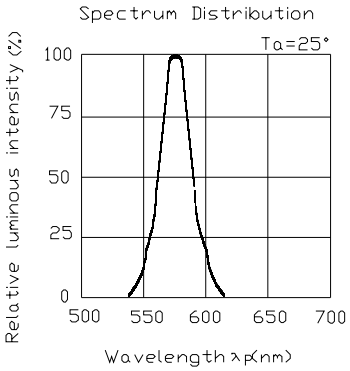
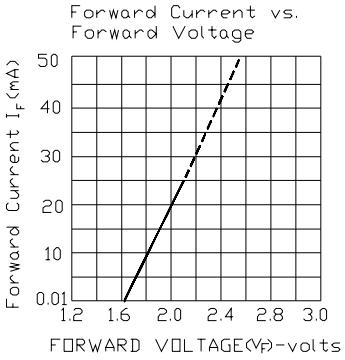
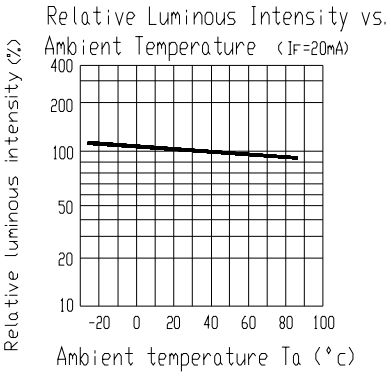
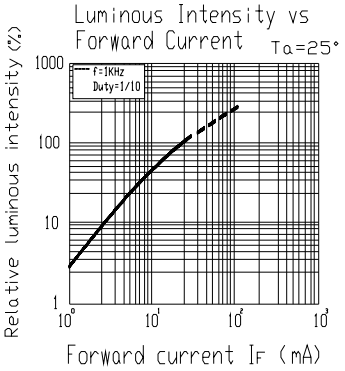
■ Typical Electro-Optical Characteristic Curves:

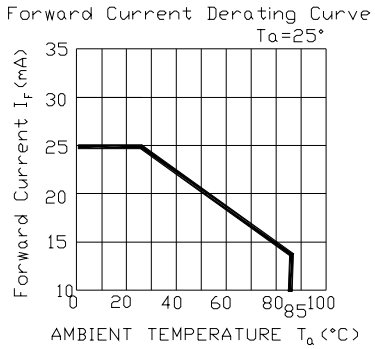
(SYG)

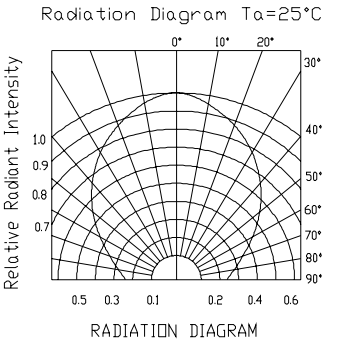












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■ Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below.
Confidence level：97%
LTPD：3%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Solder Heat	TEMP : 260℃ ± 5 ℃	10 SEC	76 PCS	Iv≦Ivt*0.5 or Vf≧U or Vf≦L	0/1
2	Temperature Cycle	H : +100℃ 15min ∫ 5 min L : -40℃ 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H : +100℃ 5min ∫ 10 sec L : -10℃ 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP : 100℃	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP : -40℃	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP : 25℃ IF = 20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85℃ / 85% RH	1000 HRS	76 PCS		0/1

Note：Ivt：To test Iv value of the chip before the reliablility test
Iv：The test value of the chip that has completed the reliablility test
U：Upper Specification Limit
L： Lower Specification Limit

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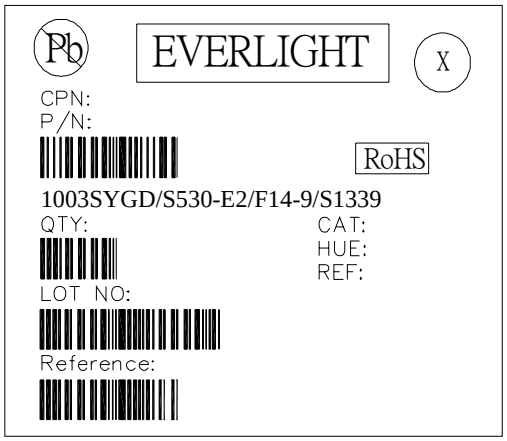
Packing Quantity Specification

1.500PCS/1Bag，5Bags/1Box

2.10Boxes/1Carton

Label Form Specification



CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Dominant Wavelength

REF: Reference

LOT No: Lot Number

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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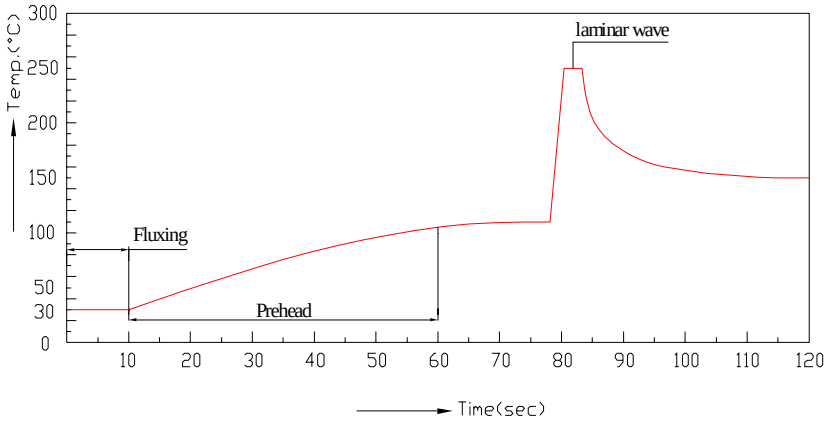
Soldering

■ Careful attention should be paid during soldering. When soldering, leave more then 3mm from solder joint to epoxy bulb, and soldering beyond the base of the tie bar is recommended.

■ Recommended soldering conditions:

Hand Soldering		DIP Soldering	
Temp. at tip of iron	300℃ Max. (30W Max.)	Preheat temp.	100℃ Max. (60 sec Max.)
Soldering time	3 sec Max.	Bath temp. & time	260 Max., 5 sec Max
Distance	3mm Min.(From solder joint to epoxy bulb)	Distance	3mm Min. (From solder joint to epoxy bulb)



■ Avoiding applying any stress to the lead frame while the LEDs are at high temperature particularly when soldering.

■ Dip and hand soldering should not be done more than one time

■ After soldering the LEDs, the epoxy bulb should be protected from mechanical shock or vibration until the LEDs return to room temperature.

■ A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.

■ Although the recommended soldering conditions are specified in the above table, dip or handsoldering at the lowest possible temperature is desirable for the LEDs.

■ Wave soldering parameter must be set and maintain according to recommended temperature and dwell time in the solder wave.