



LIGHTING FOREVER

Technical Data Sheet

3.0mm Multi-Color Round Type LED Lamps

209-3SDRSYGW/S530-A3/R2

■ Features :

- Two chips are matched for uniform light output, wide viewing angle
- Long life-solid state reliability
- I.C. compatible/Low power consumption
- Pb free
- The product itself will remain within RoHS compliant version



■ Descriptions :

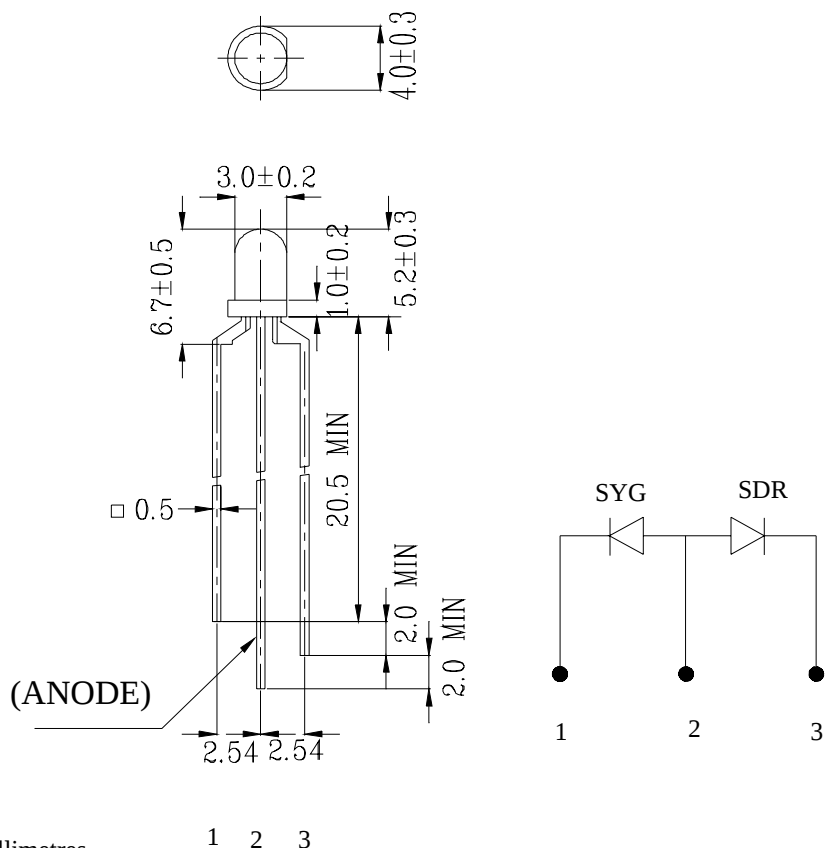
- The 209 LED lamp contain two integral chips and is available as both bicolor and bipolar types.
- The Brilliant Deep-Red and Yellow Green light is emitted by diodes of AlGaInP and AlGaInP
- Type of bipolar lamps are both White Diffused and Color Diffused while the bicolor are White Diffused

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

PART NO.	Chip		Lens Color
	Material	Emitted Color	
209-3SDRSYGW/S530-A3/R2	AlGaInP	Deep-Red	White Diffused
	AlGaInP	Brilliant Yellow Green	

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	SDR/S530	25	mA
		SYG/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		$^\circ\text{C}$
Electrostatic Discharge	ESD	SDR/S530	2000	V
		SYG/S530	2000	
Power Dissipation	P_d	SDR/S530	60	mW
		SYG/S530	60	
Reverse Voltage	V_R	5		V

Note: *1: I_{FP} Conditions --Pulse Width $\leq 1\text{msec}$ and Duty $\leq 1/10$.

*2: Soldering time ≤ 5 seconds.



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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol		Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	SDR/S530	6.3	12.5	/	mcd	I _F = 20 mA
		SYG/S530	6.3	12.5	/		
Viewing Angle	2θ 1/2		/	60	/	deg	I _F = 20 mA
Peak Wavelength	λ _p	SDR/S530	/	650	/	nm	I _F = 20 mA
		SYG/S530	/	575	/		
Dominant Wavelength	λ _d	SDR/S530	/	639	/	nm	I _F = 20 mA
		SYG/S530	/	573	/		
Spectrum Radiation Bandwidth	△λ	SDR/S530	/	20	/	nm	I _F = 20 mA
		SYG/S530	/	20	/		
Forward Voltage	V _F	SDR/S530	/	2.0	2.4	V	I _F = 20 mA
		SYG/S530	/	2.0	2.4		
Reverse Current	I _R	SDR/S530	/	/	10	μA	V _R = 5 V
		SYG/S530	/	/	10		



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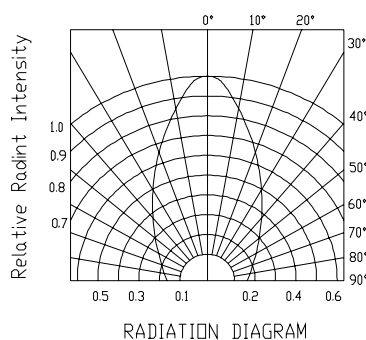
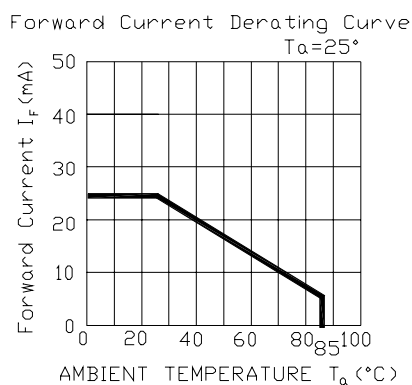
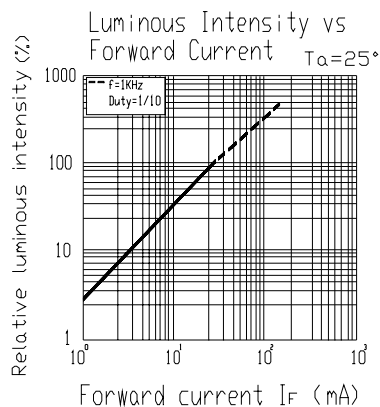
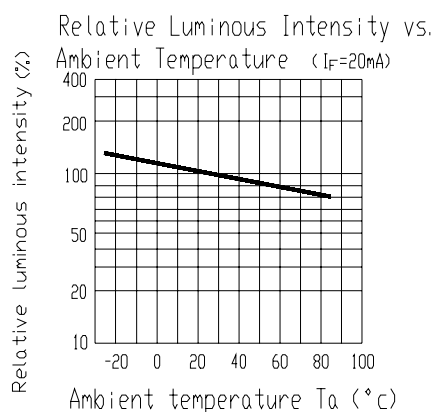
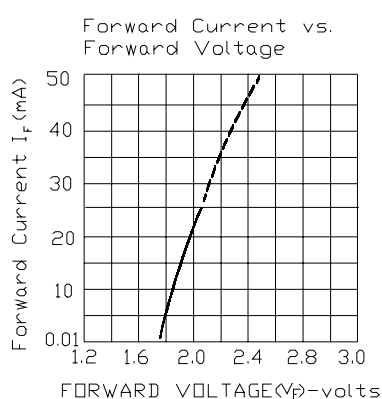
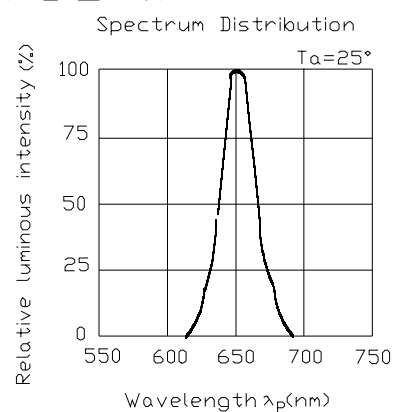
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Typical Electro-Optical Characteristic Curves:

(SDR)





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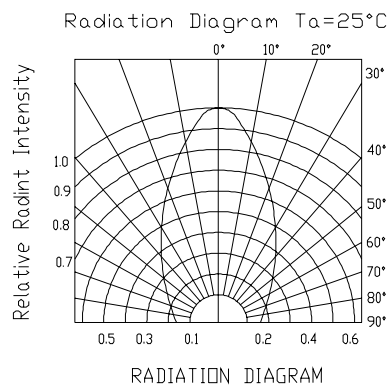
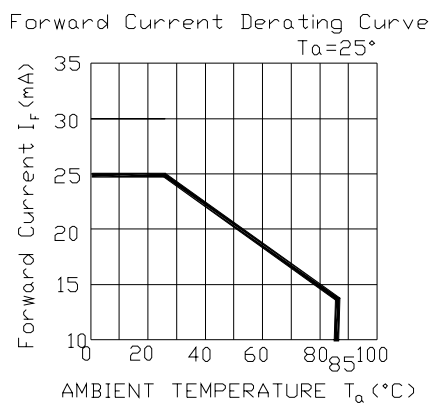
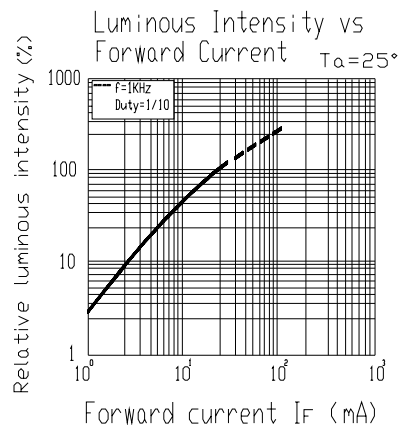
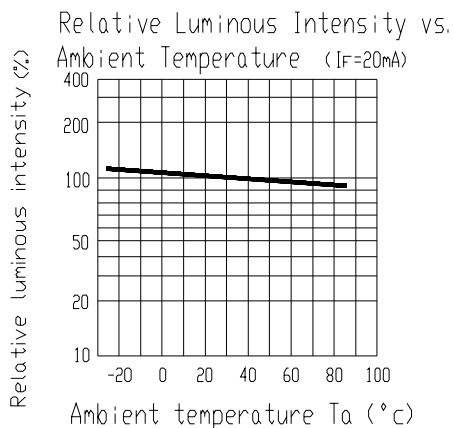
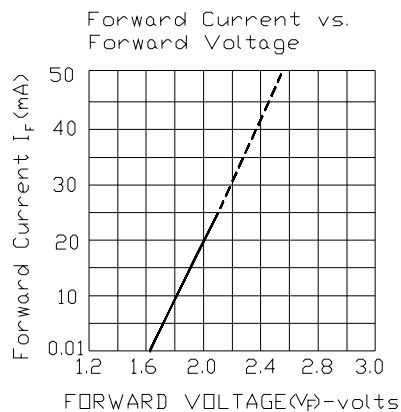
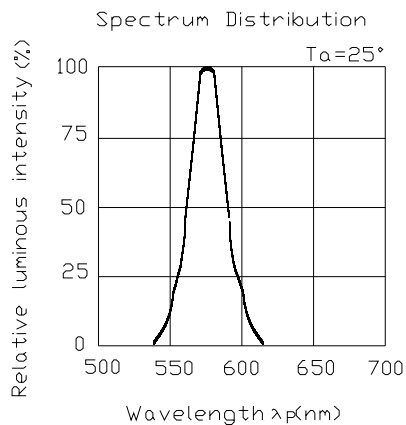
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(SYG)





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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:		
	RoHS	
209-3SDRSYGW/S530-A3/R2		
QTY:	CAT:	
	HUE:	
LOT NO:	REF:	
Reference:		

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak 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.
3. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.

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