



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-420-208 REV.: 2

## 3.0mm Multi-Color Round Type LED Lamps

PART NO.: 4209YGW/R2

ECN : Page: 1/5

## ■ Features :

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

## ■ Descriptions :

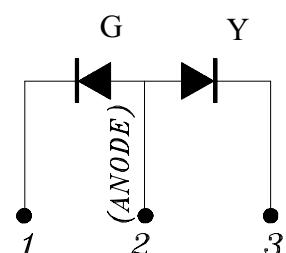
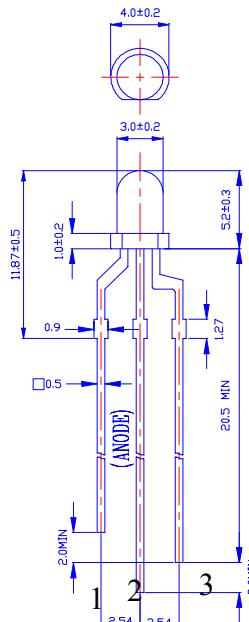
The 4209 LED lamp contain two integral chips and is available as both bicolor and bipolar types.

- The Yellow and Green light is emitted by diodes of GaAsP/GaP and GaP respectively.

## ■ Applications :

- TV set
  - Monitor
  - Telephone
  - Computer

#### ■ Package Dimensions:



### ■ Notes :

1. All dimensions are in millimeters.
  2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
  3. Tolerances unless Dimension  $\pm 0.25$ mm.

PART NO.	Chip		Lens Color
	Material	Emitted Color	
4209YGW/R2	GaAsP/GaP	Yellow	White Diffused
	GaP	Green	

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### ■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating		Unit
Forward Current	IF	Y	25	mA
		G	30	
Operating Temperature	Topr	-40 to +85		°C
Storage Temperature	Tstg	-40 to +100		°C
Soldering Temperature	Tsol	260 ± 5		°C
Power Dissipation	Pd	Y	85	mW
		G	100	
Peak Forward Current (Duty 1/10 @ 1KHz)	IF(Peak)	Y	160	mA
		G	160	
Reverse Voltage	VR	5		V

### ■ Electronic Optical Characteristics :

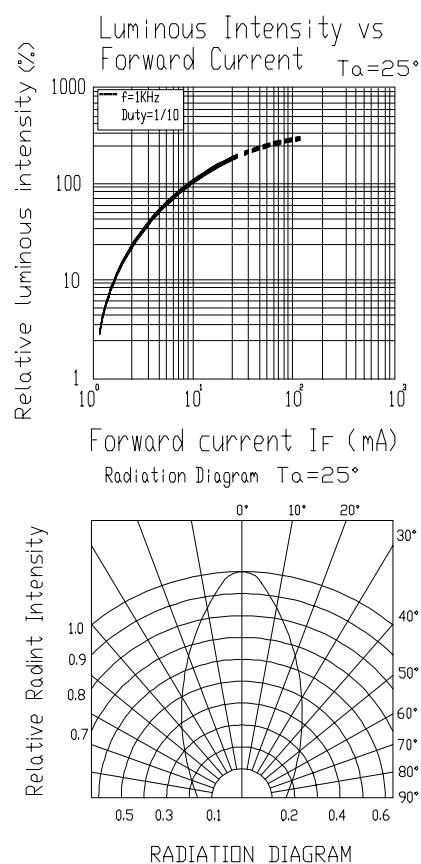
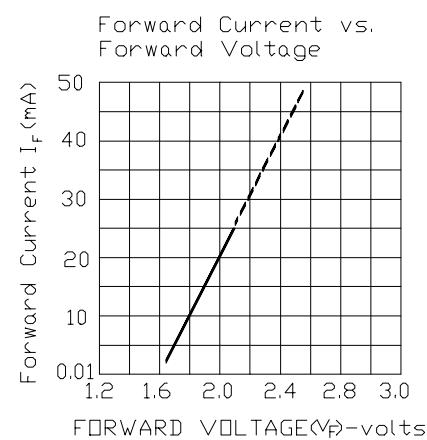
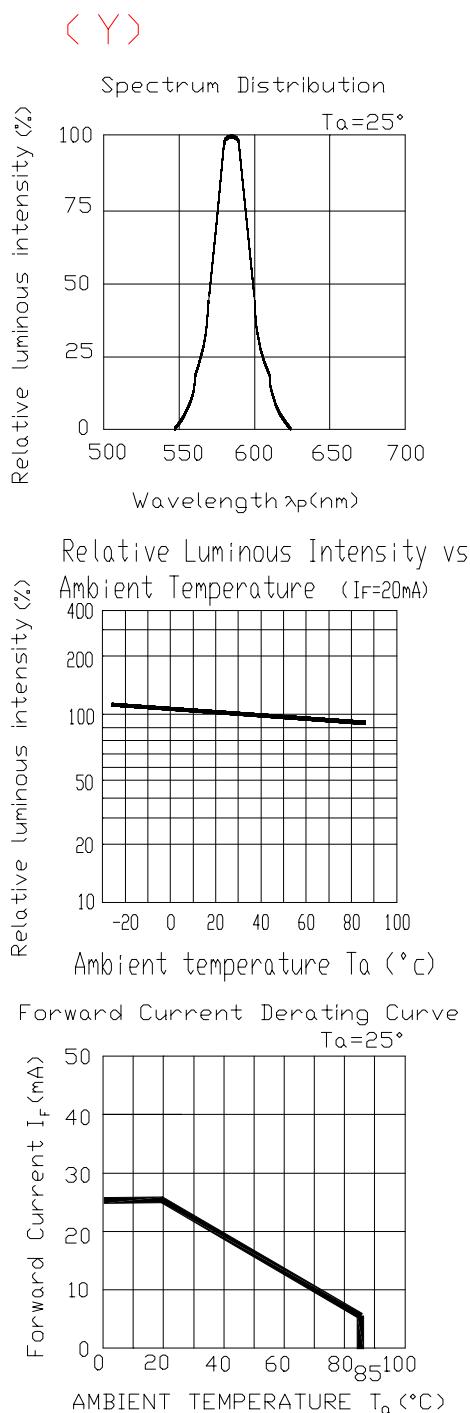
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	Y	0.10	0.25	/	mcd
		G	0.16	0.40	/	
Viewing Angle	2θ 1/2	/	60	/	deg	IF= 20 mA
Peak Wavelength	λ p	Y	/	585	/	nm
		G	/	565	/	
Dominant Wavelength	λ d	Y	/	590	/	nm
		G	/	570	/	
Spectrum Radiation Bandwidth	△λ	Y	/	35	/	nm
		G	/	30	/	
Forward Voltage	VF	Y	1.7	2.0	2.4	V
		G	1.7	2.1	2.4	
Reverse Current	IR	/	/	10	μA	VR= 5 V



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## ■ Typical Electro-Optical Characteristic Curves:





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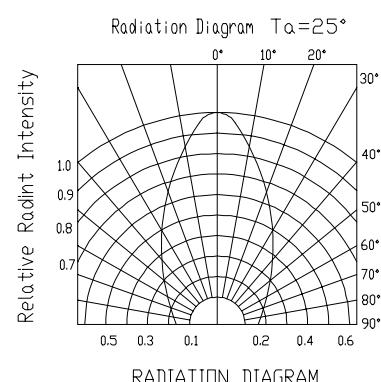
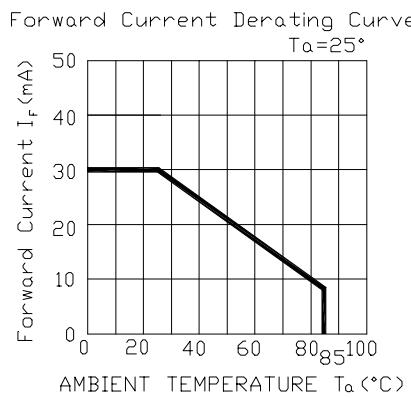
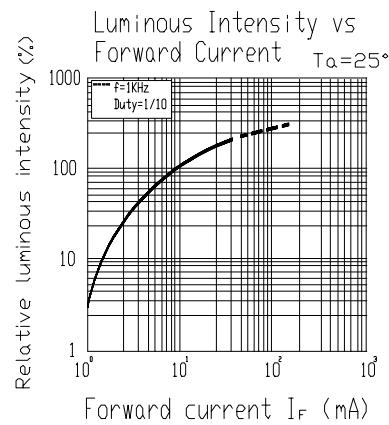
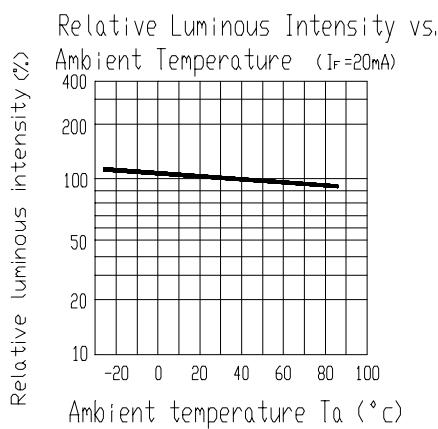
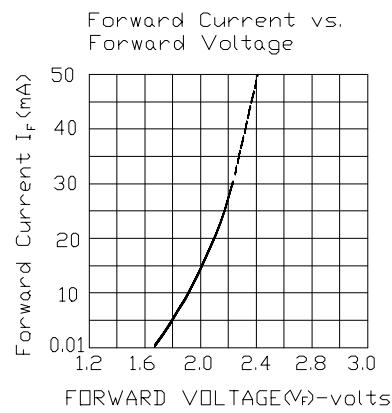
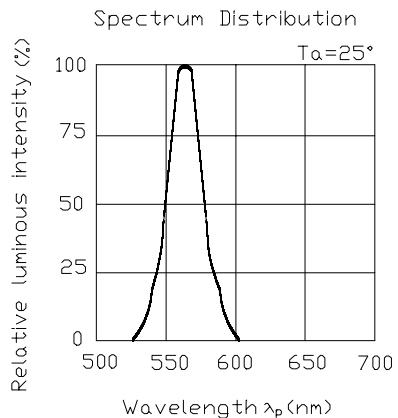
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### ■ Typical Electro-Optical Characteristic Curves:

(G)





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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	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min S 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min S 10 sec L : -10°C 5min	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	TEMP : 25°C IF = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1