



3.0mm Multi-Color Round Type LED Lamps

■ Features :

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

■ Descriptions :

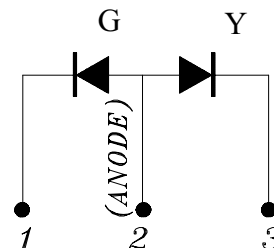
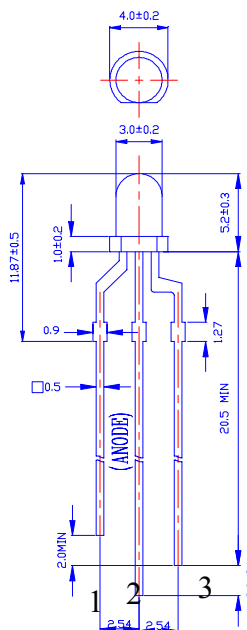
The 4209 LED lamp contain two integral chips and is available as both bicolor and bipolar types.

- 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 $\pm 0.25\text{mm}$.

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

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL : 886-2-2267-2000,2267-9936

FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>



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: 2/5

■ 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	IF= 10 mA
	G	0.16	0.40	/		
Viewing Angle	2 θ 1/2	/	60	/	deg	IF= 20 mA
Peak Wavelength	λ p Y	/	585	/	nm	IF= 20 mA
	G	/	565	/		
Dominant Wavelength	λ d Y	/	590	/	nm	IF= 20 mA
	G	/	570	/		
Spectrum Radiation Bandwidth	△ λ Y	/	35	/	nm	IF= 20 mA
	G	/	30	/		
Forward Voltage	VF Y	1.7	2.0	2.4	V	IF= 20 mA
	G	1.7	2.1	2.4		
Reverse Current	IR	/	/	10	μ A	VR= 5 V



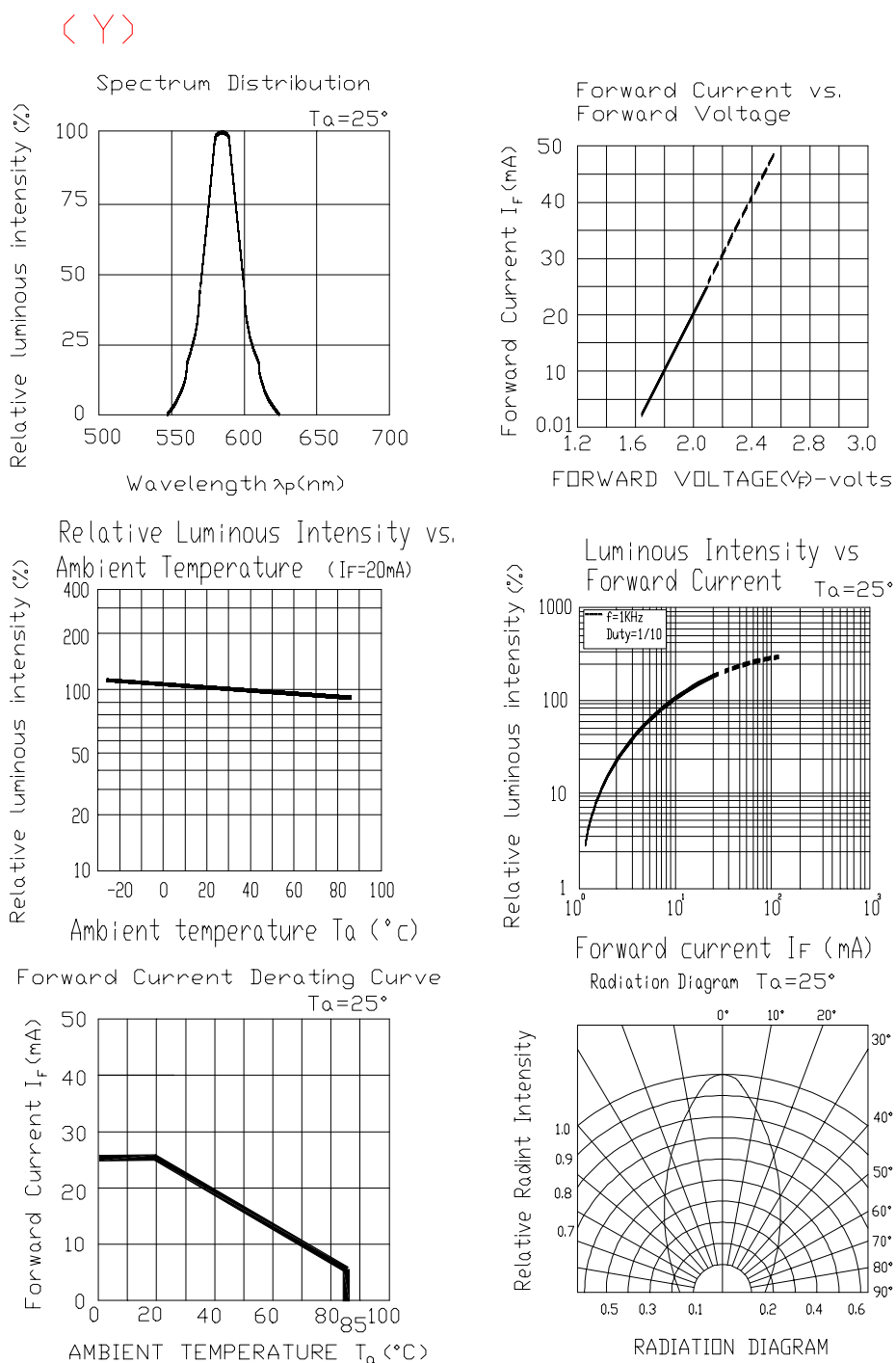
EVERLIGHT ELECTRONICS CO.,LTD.

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

3.0mm Multi-Color Round Type LED Lamps

PART NO. : 4209YGW/R2 ECN : Page: 3/5

■ Typical Electro-Optical Characteristic Curves:





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-420-208

REV.: 2

3.0mm Multi-Color Round Type LED Lamps

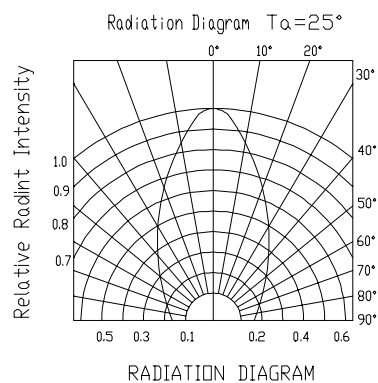
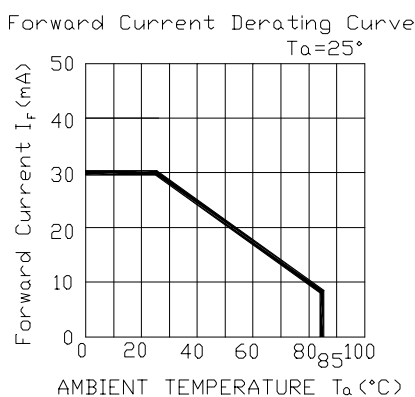
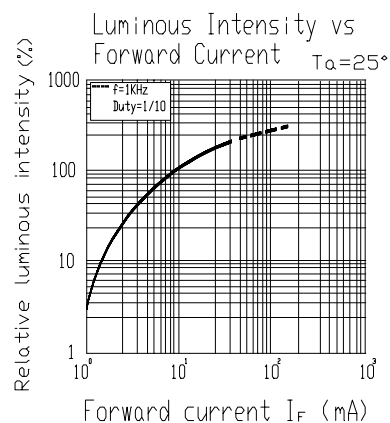
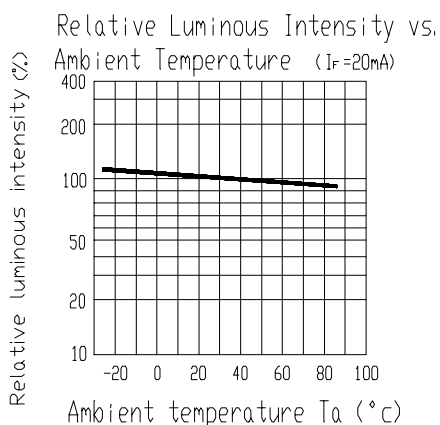
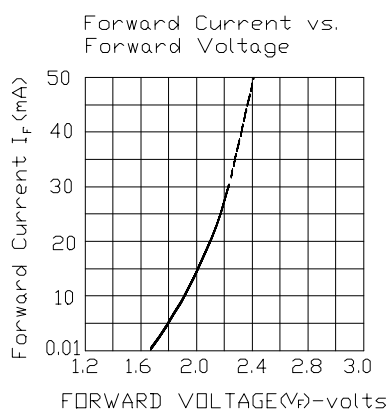
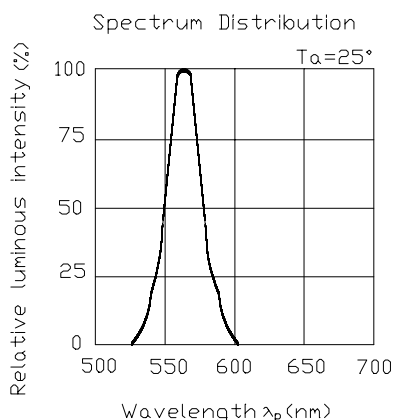
PART NO. : 4209YGW/R2

ECN :

Page: 4/5

■ Typical Electro-Optical Characteristic Curves:

< G >





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: 5/5

■ 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 └ 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min └ 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