



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-275 REV: 1.0

3.0mm Bi-Color (Multi-Color)with Common Cathode(0.1" Lead pitch) LEDs, T-1

MODEL NO : 209VYUBW ECN : _____ Page: 1/5

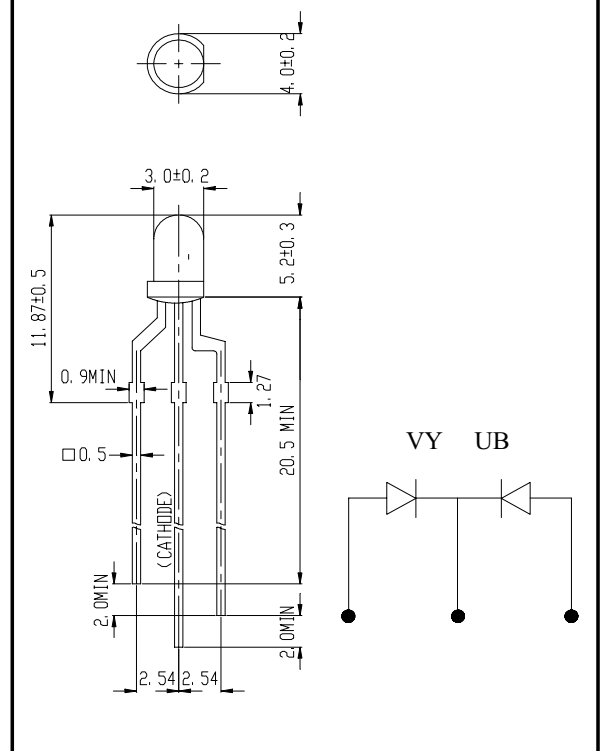
Features :

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

Descriptions :

- The 209 LED lamp contain two integral chips and are available as both bicolor and bipolar types.
- The yellow and blue light is emitted by diodes of GaAsP/GaP and GaN/SiC Substrate respectively.

Package Dimensions:



Applications :

- TV set
- Monitor
- Telephone
- Computer

Notes :

- 1.All dimensions are in millimeters.
- 2.An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.

PART NO	Chip		Lens Color
	Material	Emitted Color	
209VYUBW	GaAsP/GaP	Yellow	White Diffused
	GaN/SiC	Blue	

B992401,991218

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Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	If	VY 30	mA
		UB 30	
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Electrostatic Discharge	ESD	UB 1000	V
Power Dissipation	Pd	VY 100	mW
		UB 140	
Peak Forward Current (Duty 1/10 @ 1KHZ)	If(Peak)	VY 160	mA
		UB 70	
Reverse Voltage	Vr	5	V

Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	VY 4.0	6.3	/	mcd	If= 20 mA
		UB 16				
Viewing Angle	2θ 1/2	/	30	/	deg	If= 20 mA
Peak Wavelength	λ p	VY /	585	/	nm	If= 20 mA
		UB /				
Dominant Wavelength	λ d	VY /	590	/	nm	If= 20 mA
		UB 464				
Spectrum Radiation Bandwidth	△ λ	VY /	35	/	nm	If= 20 mA
		UB /				
Forward Voltage	Vf	VY 1.7	2.0	2.6	V	If= 20 mA
		UB /				
Reverse Current	Ir	/	/	10	μ A	Vr= 5 V



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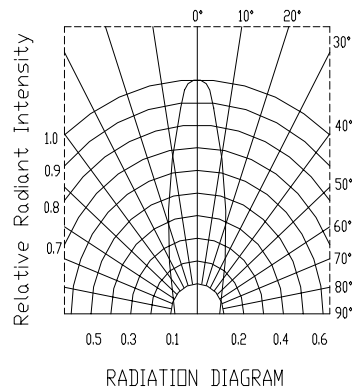
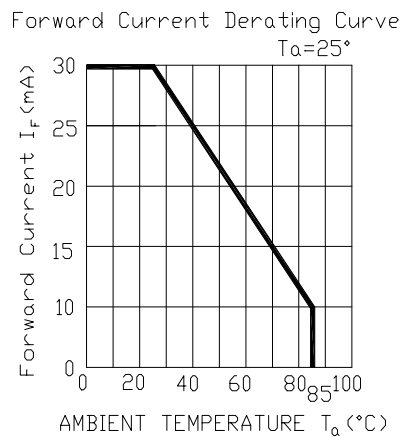
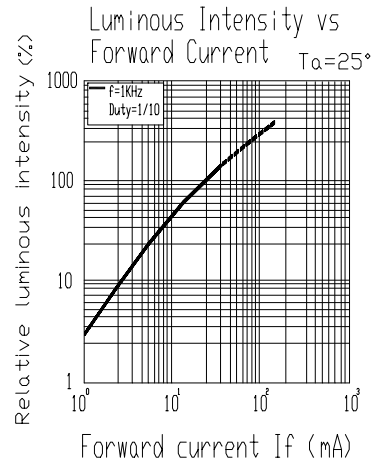
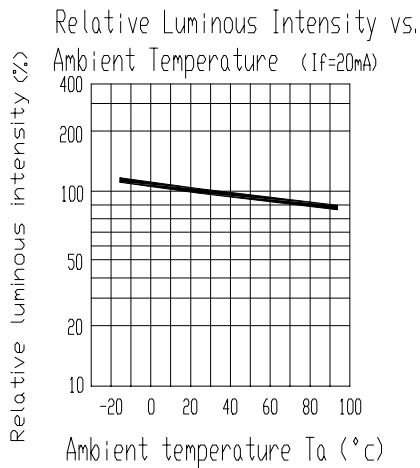
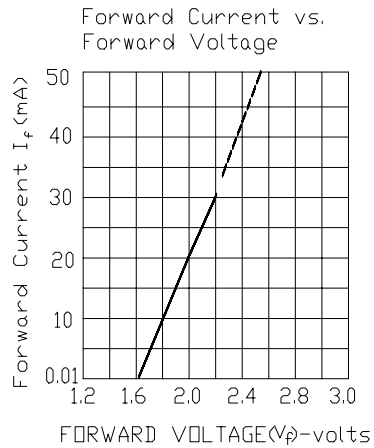
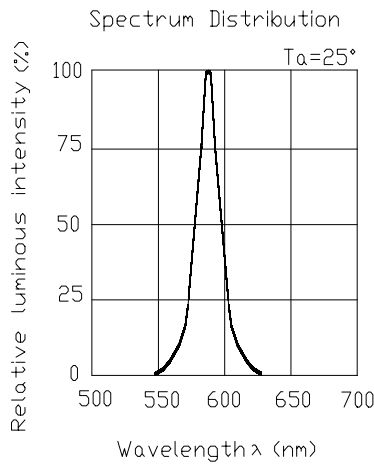
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MODEL NO : 209VYUBW ECN : _____ Page: 3/5

Typical Electro-Optical Characteristic Curves

VY





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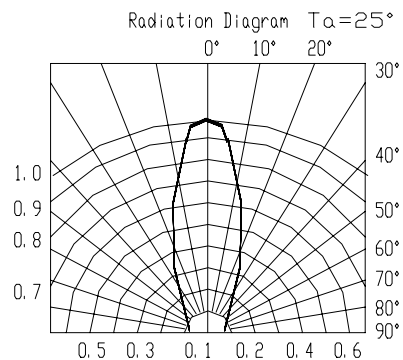
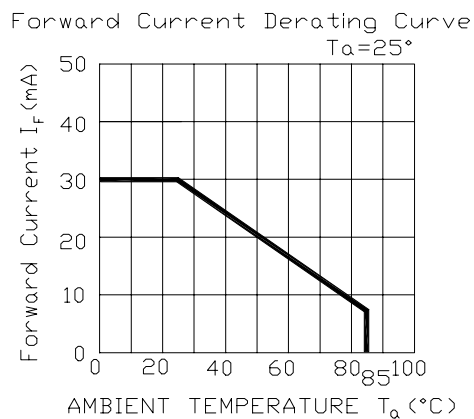
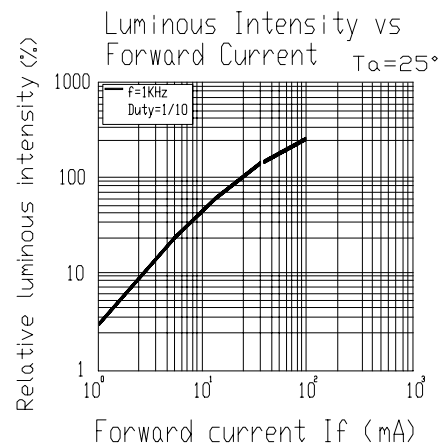
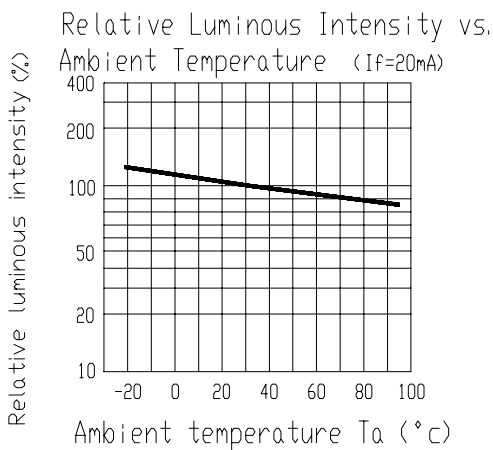
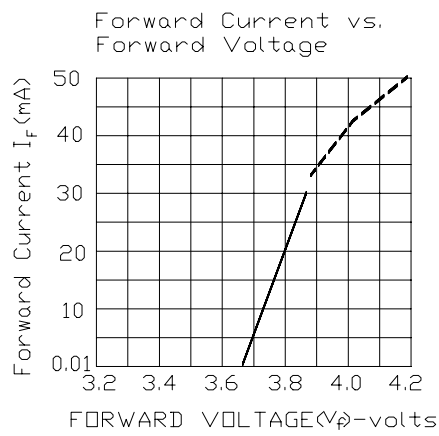
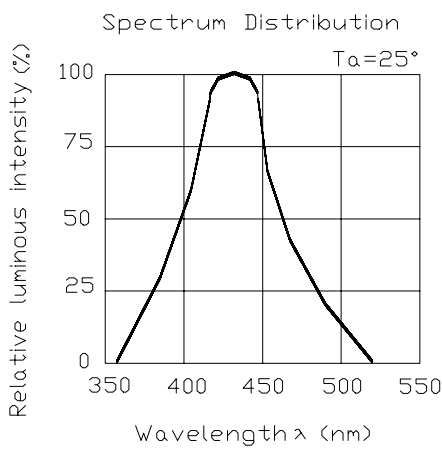
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■ Typical Electro-Optical Characteristic Curves

UB





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■ Reliability test item and condition

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 CYCLE	76 Pcs	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	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	If = 20 mA	1000 HRS	76 Pcs	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 Pcs	0/1