EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-081 REV: 1.3

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

PART NO : 209EGW ECN : Page: 1/5

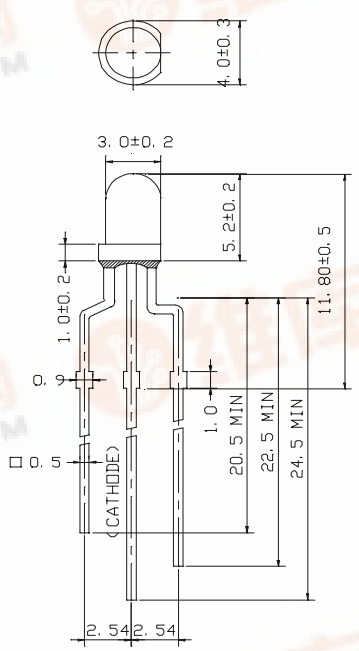
Features :

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

Descriptions:

- The 209 LED lamps contain two integral chips and is available as both bicolor and bipolsr types.
- The Orange and Green Light is emitted by diodes of GaAsP/GaP and GaP 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	
209EGW	GaAsP/GaP	Orange	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

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■ Absolute Maximum Ratings at Ta = 25℃

Parameter	Symbol	Rating	Unit
Forward Current	I_F E G	30 30	mA
Operating Temperature	Topr	-40 to +85	℃
Storage Temperature	Tstg	-40 to +100	℃
Soldering Temperature	Tsol	260 ± 5	℃
Power Dissipation	Pd E G	100 100	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	$I_{F(Peak)}$ E G	160 160	mA
Reverse Voltage	V_R	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv E G	1.6 2.5	2.5 4.0	-----	mcd	I_F=10mA
Viewing Angle	2θ 1/2	-----	70	----	deg	I_F=20mA
Peak Wavelength	λp E G	----	635 565	----	nm	I_F=20mA
Dominant Wavelength	λd E G	----	625 570	-----	nm	I_F=20mA
Spectrum Radiation Bandwidth	△λ E G	-----	45 30	-----	nm	I_F=20mA
Forward Voltage	V_F E G	1.7 1.7	2.0 2.1	2.4 2.4	V	I_F=20mA
Reverse Current	I_R	----	----	10	μA	V_R=5V

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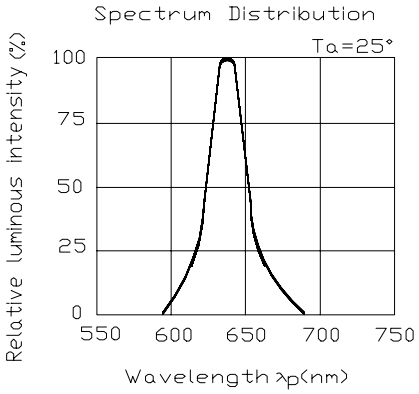
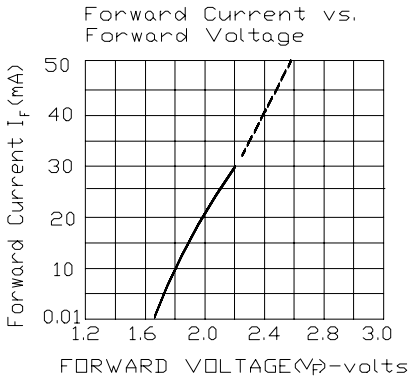
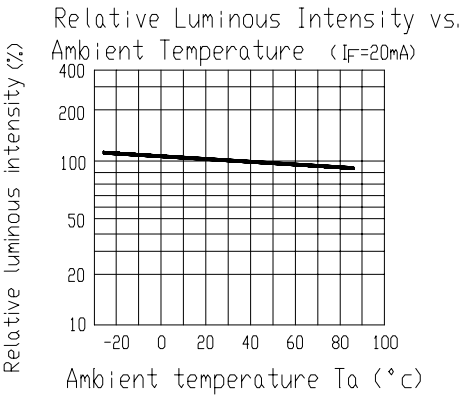
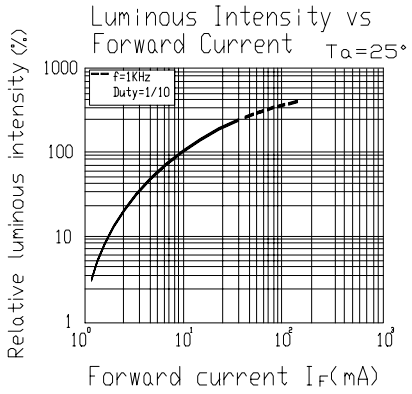
■ Typical Electro-Optical Characteristic Curves

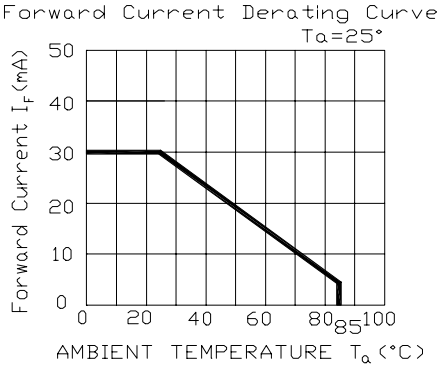
E

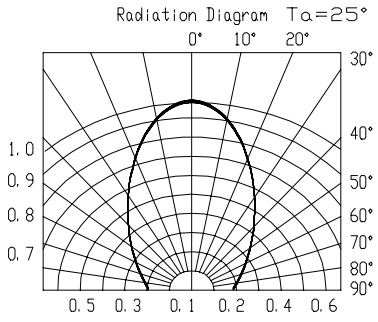












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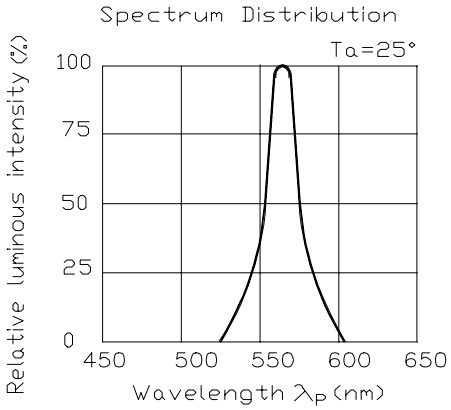
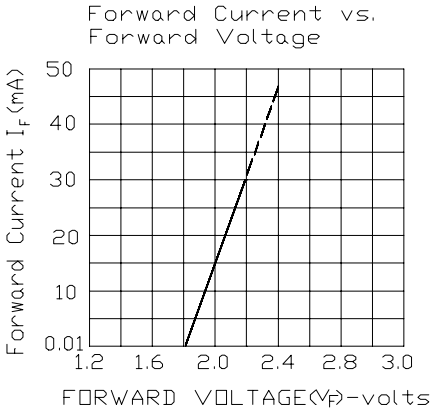
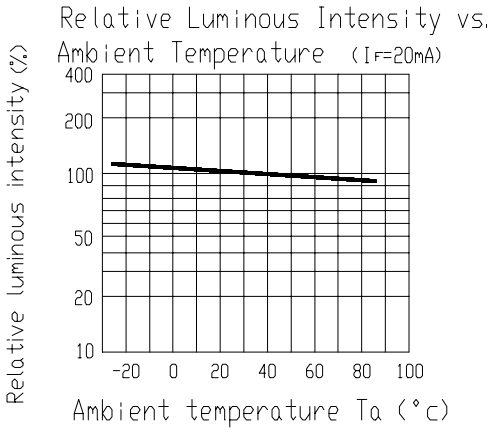
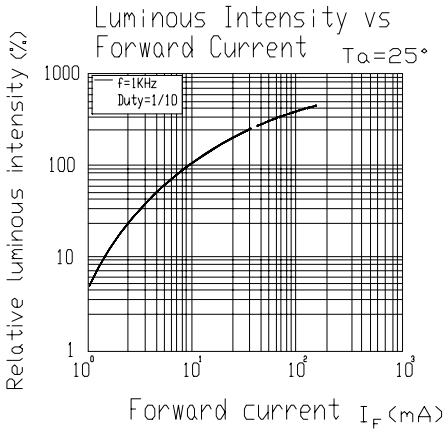
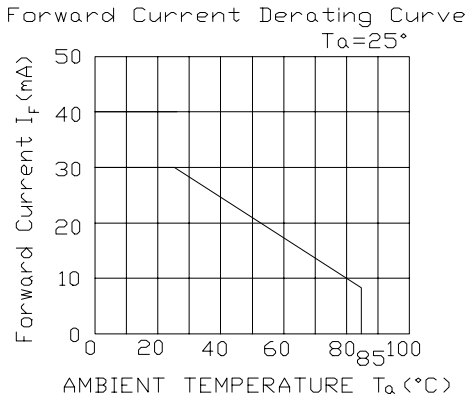
G

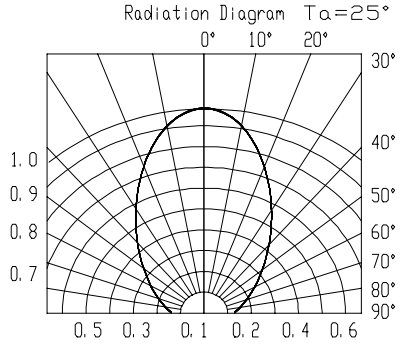












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■ Reliability test items and conditions

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260℃ ± 5 ℃	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85℃ 30min ∫ 5 min L : -55℃ 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100℃ 5min ∫ 10 sec L : -10℃ 5min	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100℃	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55℃	1000 HRS	76 PCS	0/1
6	DC Operating Life	I_F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85℃/85% RH	1000 HRS	76 PCS	0/1