



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

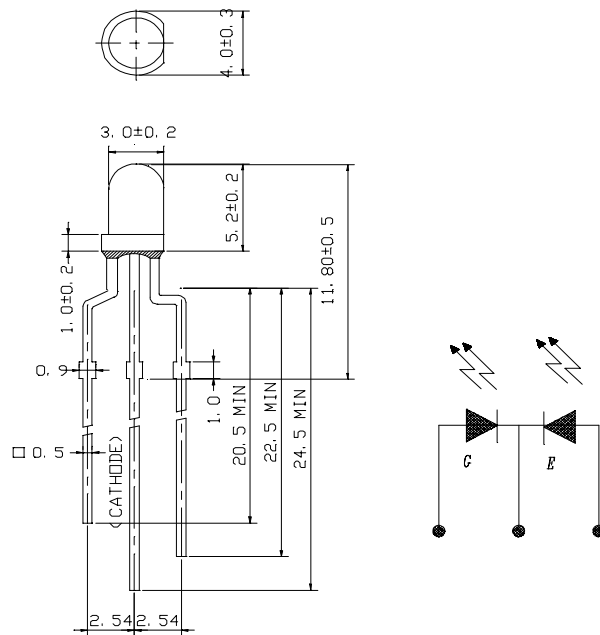
Features :

- 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 bipolrs 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	

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<http://www.everlight.com>



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■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	I_F ^E / _G	30 30	mA
Operating Temperature	T _{opr}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +100	°C
Soldering Temperature	T _{sol}	260 ± 5	°C
Power Dissipation	P _d ^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	I_v ^E / _G	1.6 2.5	2.5 4.0	-----	mcd	I _F =10mA
Viewing Angle	2 θ 1/2	----	70	----	deg	I _F =20mA
Peak Wavelength	λ _p ^E / _G	----	635 565	----	nm	I _F =20mA
Dominant Wavelength	λ _d ^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	μ A	V _R =5V



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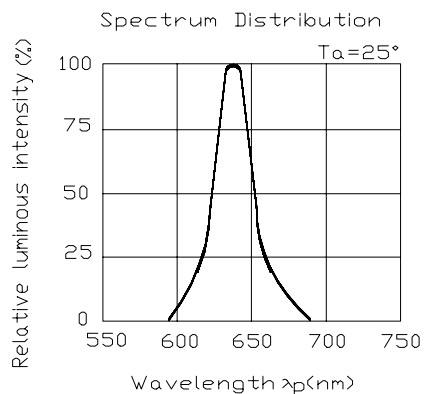
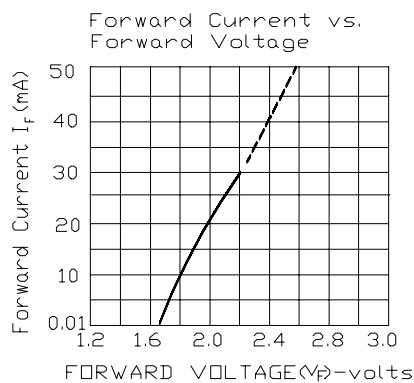
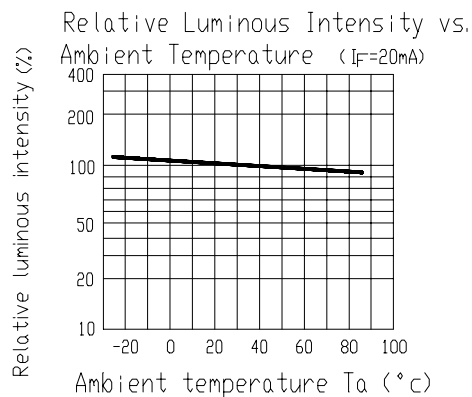
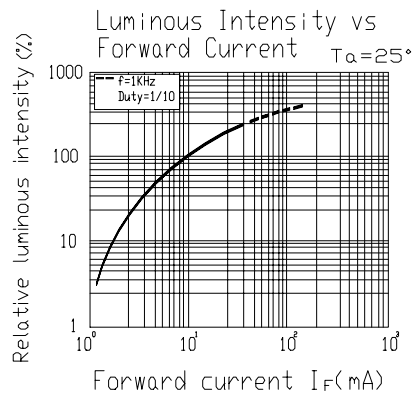
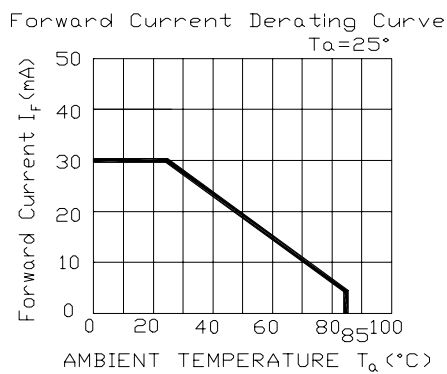
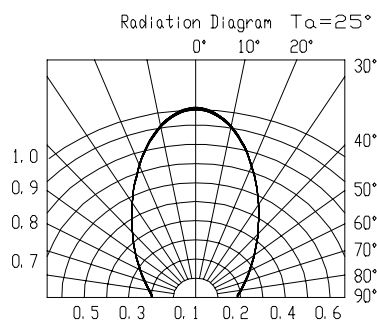
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Typical Electro-Optical Characteristic Curves

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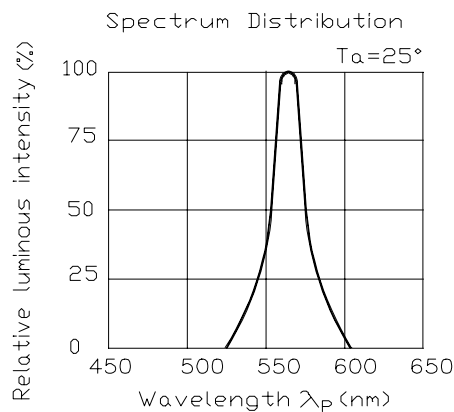
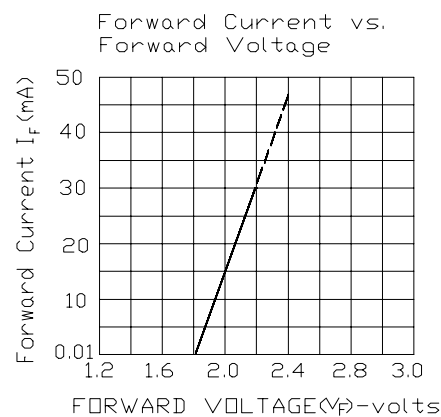
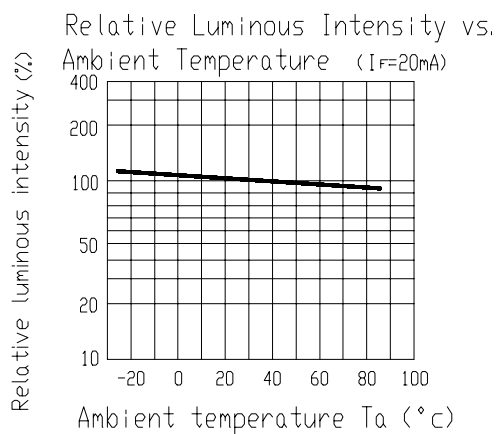
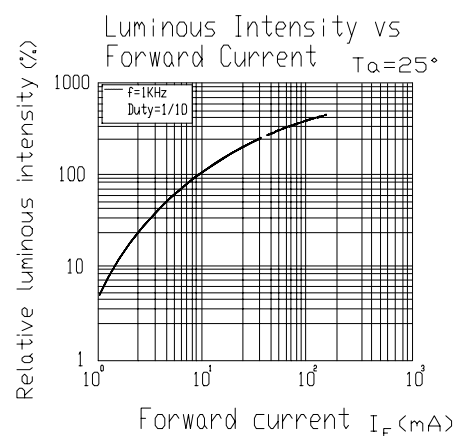
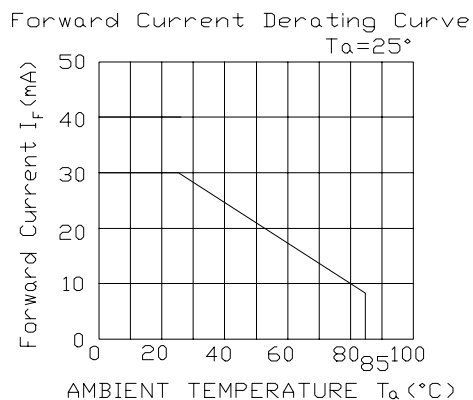
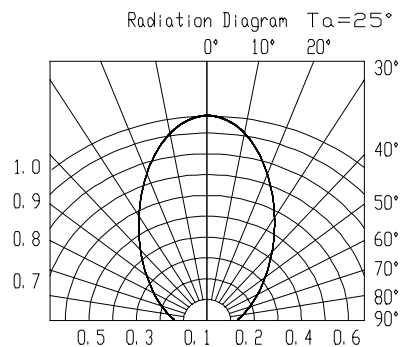
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■ Typical Electro-Optical Characteristic Curves

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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 § 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	I _F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1