



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-051-030 REV.: 2

2.0\*5.0mm Multi-Color Rectangle Type LED Lamps

PART NO. : 519EGW 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 consuming

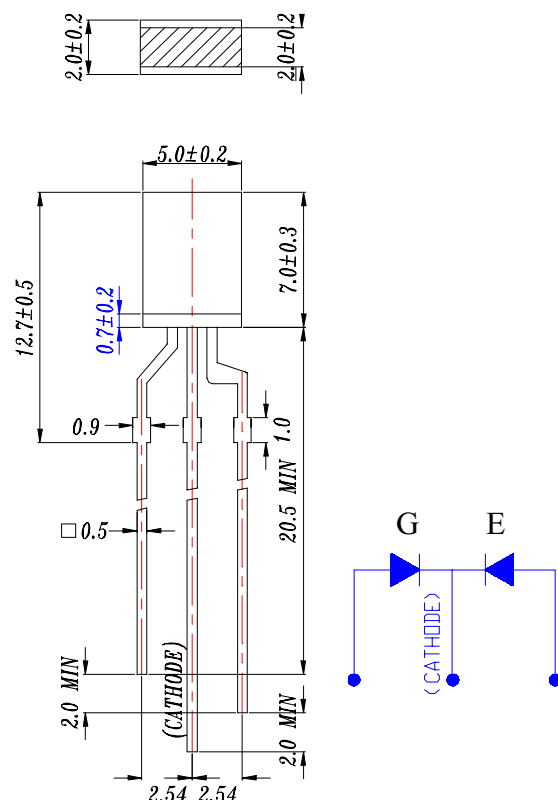
## ■ Descriptions :

- The 519 LED lamp contain two integral chips and are available as both bicolor and bipolar types.
- The Orange and Green light is emitted by diodes of GaAsP/GaP and GaP respectively.
- Type of bipolar lamps are both White Diffused and Color Diffused while the bicolor are White Diffused.

## ■ 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	
519EGW	GaAsP/GaP	Orange	White Diffused
	GaP	Green	

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

Parameter	Symbol	Rating	Unit
Forward Current	IF	E 30	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	E 100	mW
		G 100	
Peak Forward Current (Duty 1/10 @ 1KHz)	IF(Peak)	E 160	mA
		G 160	
Reverse Voltage	VR	5	V

## ■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv E	0.20	0.40	/	mcd	IF= 10 mA
	G	0.30	0.80	/		
Viewing Angle	2 θ 1/2	/	125	/	deg	IF= 20 mA
Peak Wavelength	λ p E	/	635	/	nm	IF= 20 mA
	G	/	565	/		
Dominant Wavelength	λ d E	/	625	/	nm	IF= 20 mA
	G	/	570	/		
Spectrum Radiation Bandwidth	△ λ E	/	45	/	nm	IF= 20 mA
	G	/	30	/		
Forward Voltage	VF E	1.7	2.0	2.4	V	IF= 20 mA
		G	1.7	2.1		
Reverse Current	IR	/	/	10	μ A	VR= 5 V



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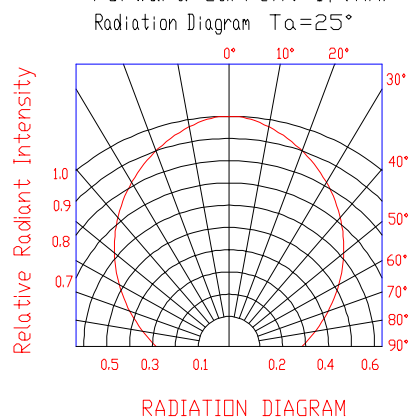
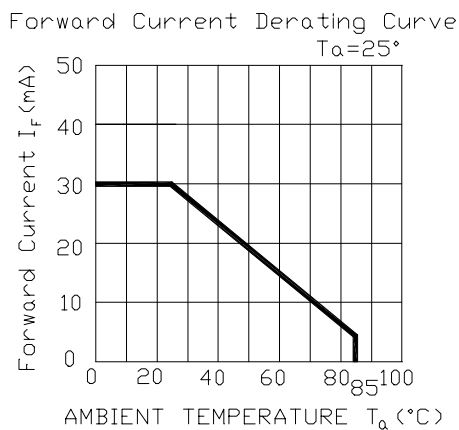
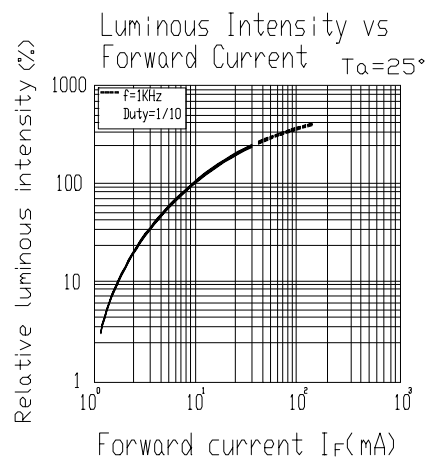
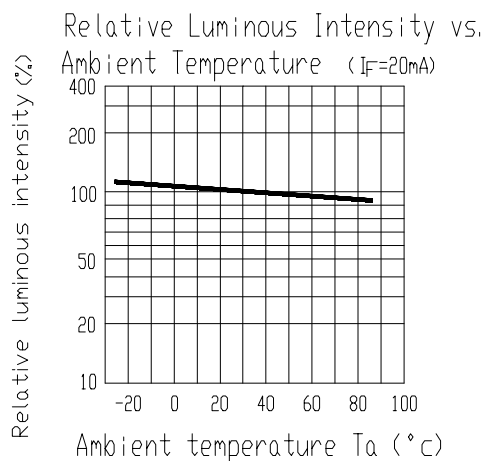
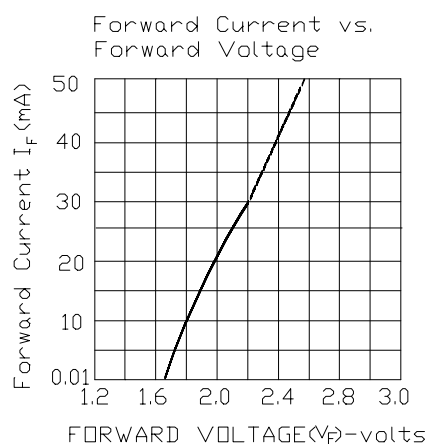
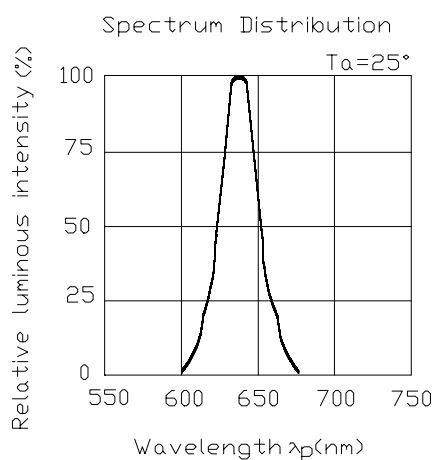
PART NO. : 519EGW

ECN :

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## ■ Typical Electro-Optical Characteristic Curves:

( E )





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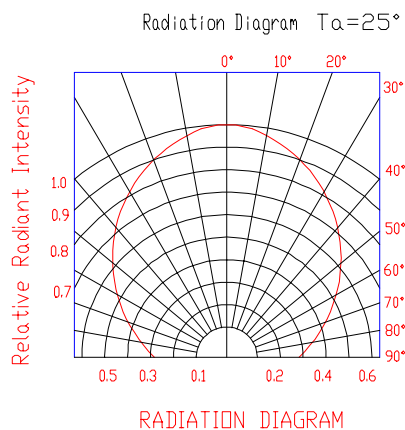
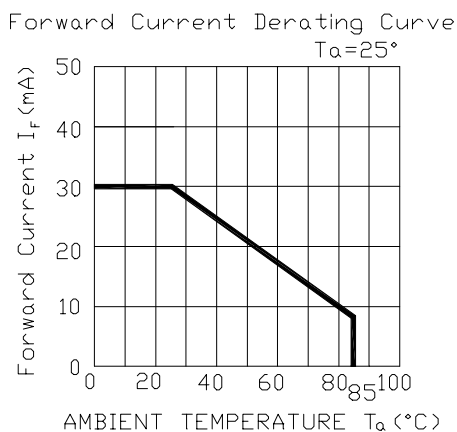
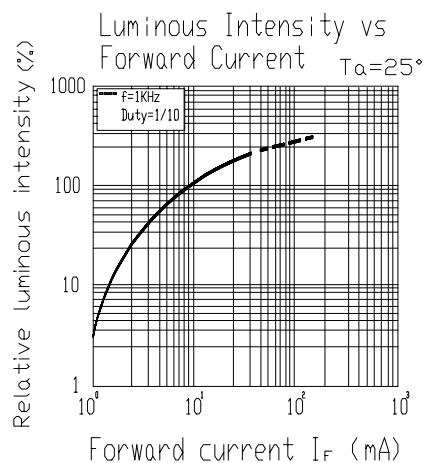
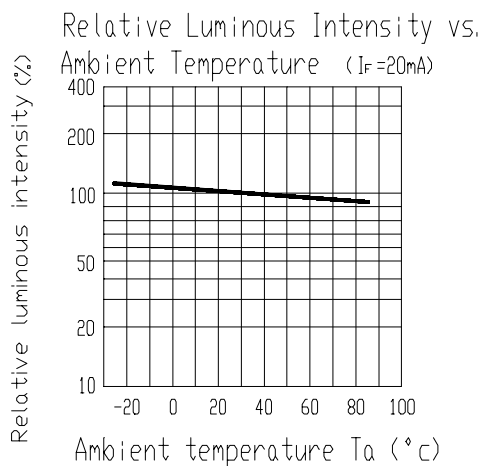
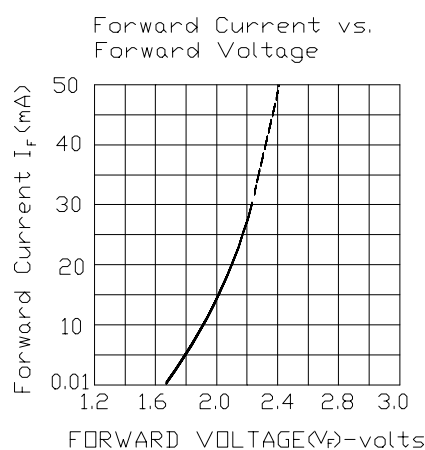
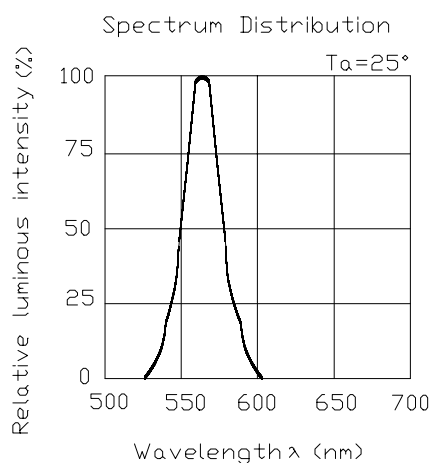
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## ■ Typical Electro-Optical Characteristic Curves:

( 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 └ 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	IF = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1