



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-051-038 REV: 1.2

2.0*5.0mm Rectangle Type LED Lamps

PART NO. : 513AD ECN : Page: 1/4

■ Features :

- Choice of various viewing angles
- Available on tape and reel
- Reliable and robust

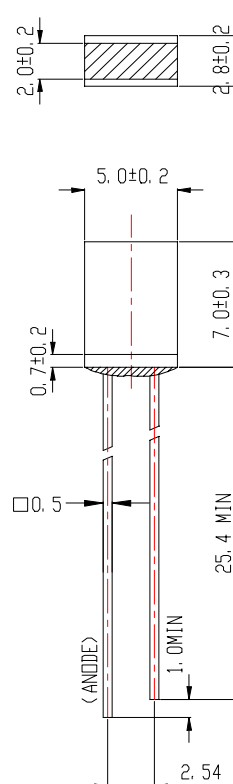
■ Descriptions :

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors, intensities, epoxy colors, etc.

■ 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 ± 0.25 mm

PART NO	Chip		Lens Color
	Material	Emitted Color	
513AD	GaAlAs	Yellow	Amber Diffused

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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	25	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	85	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	160	mA
Reverse Voltage	V _R	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	1.6	2.5	/	mcd	I _F = 10 mA
Viewing Angle	2 θ 1/2	/	180	/	deg	I _F = 20 mA
Peak Wavelength	λ _p	/	600	/	nm	I _F = 20 mA
Dominant Wavelength	λ _d	/	/	/	nm	I _F = 20 mA
Spectrum Radiation Bandwidth	△ λ	/	35	/	nm	I _F = 20 mA
Forward Voltage	V _F	1.7	2.0	2.4	V	I _F = 20 mA
Reverse Current	I _R	/	/	10	μ A	V _R = 5 V



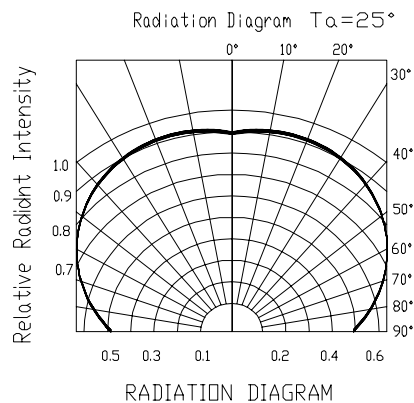
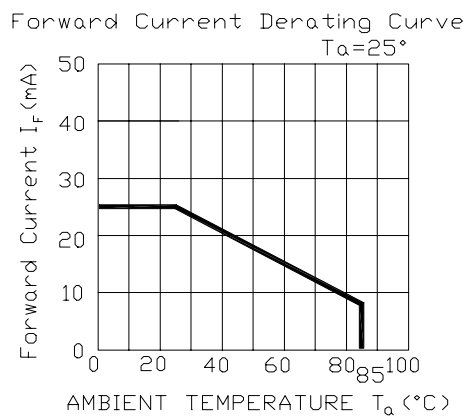
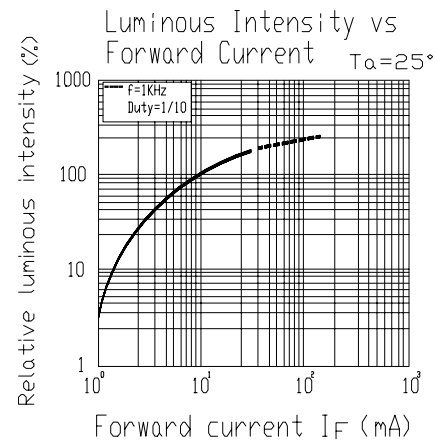
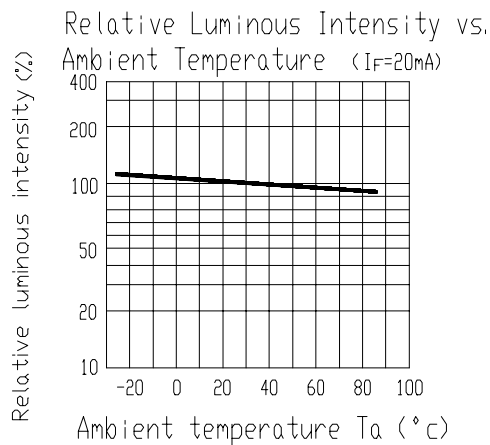
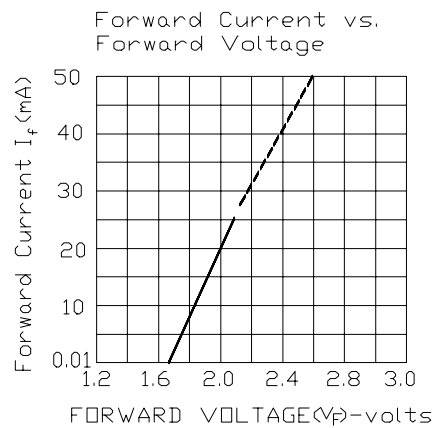
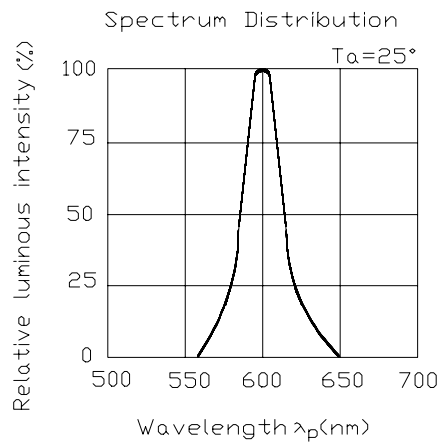
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■ Typical Electro-Optical Characteristic Curves:





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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	TEMP : 25°C If=20mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C /85% RH	1000 HRS	76 PCS	0/1