



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-122-013 REV.: 3

3.0mm Round Type LED Lamps

PART NO. : 1224SURD/S400 ECN : Page: 1/4

■ Features :

- High luminous power.
- Can be driven at low current.
- 2.54mm lead spacing.
- Available on tape and reel.

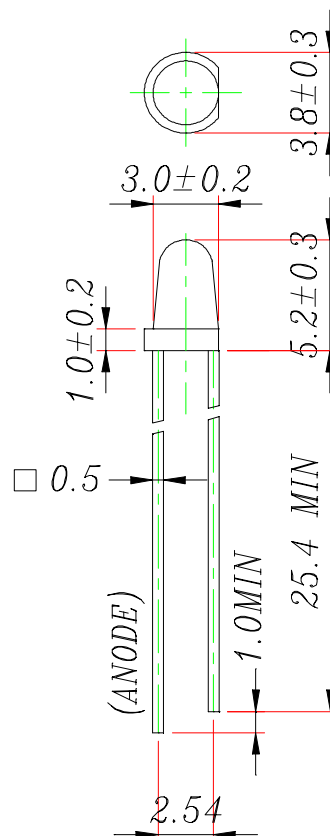
■ Descriptions :

- 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.

PART NO	Chip		Lens Color
	Material	Emitted Color	
1224SURD/S400	AlGaInP	Hyper Red	Red Diffused

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<http://www.everlight.com>

T99311,A990540



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■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	I _F	50	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	120	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	200	mA
Reverse Voltage	V _R	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	160	250	/	mcd	I _F = 20 mA
Viewing Angle	2 θ 1/2	/	30	/	deg	I _F = 20 mA
Peak Wavelength	λ _p	/	632	/	nm	I _F = 20 mA
Dominant Wavelength	λ _d	/	624	/	nm	I _F = 20 mA
Spectrum Radiation Bandwidth	△ λ	/	20	/	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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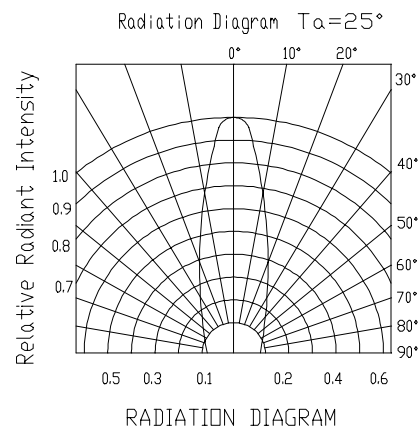
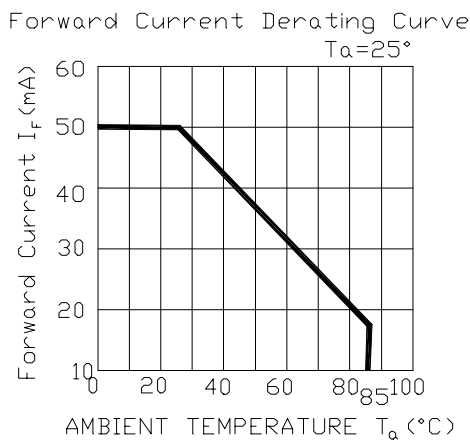
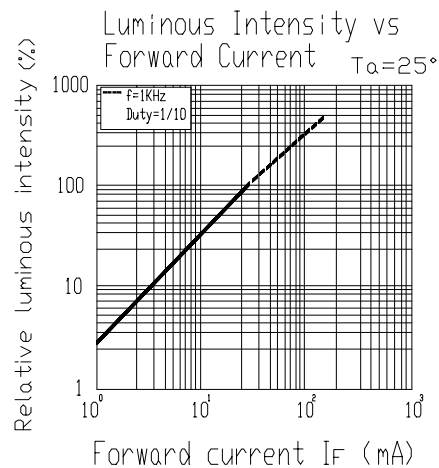
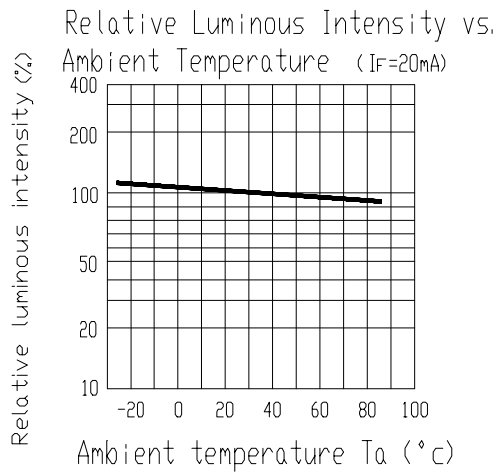
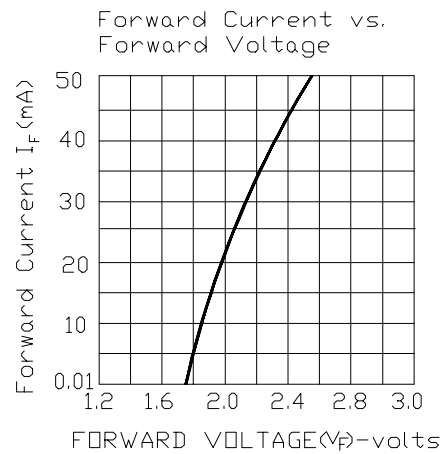
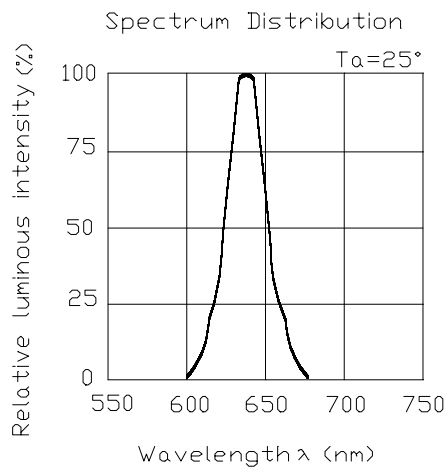
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■ Typical Electro-Optical Characteristic Curves:

(SUR)





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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