



# EVERLIGHT ELECTRONICS CO., LTD.

Device Number : CDLE-033-190

REV: 3

5.0mm Round Type LED Lamps

MODEL NO : 333-2SURC/S530-A2

ECN : \_\_\_\_\_

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### ■ Features :

- LOW POWER CONSUMPTION.
- LONG LIFE FEATURE
- RELIABLE AND RUGGED

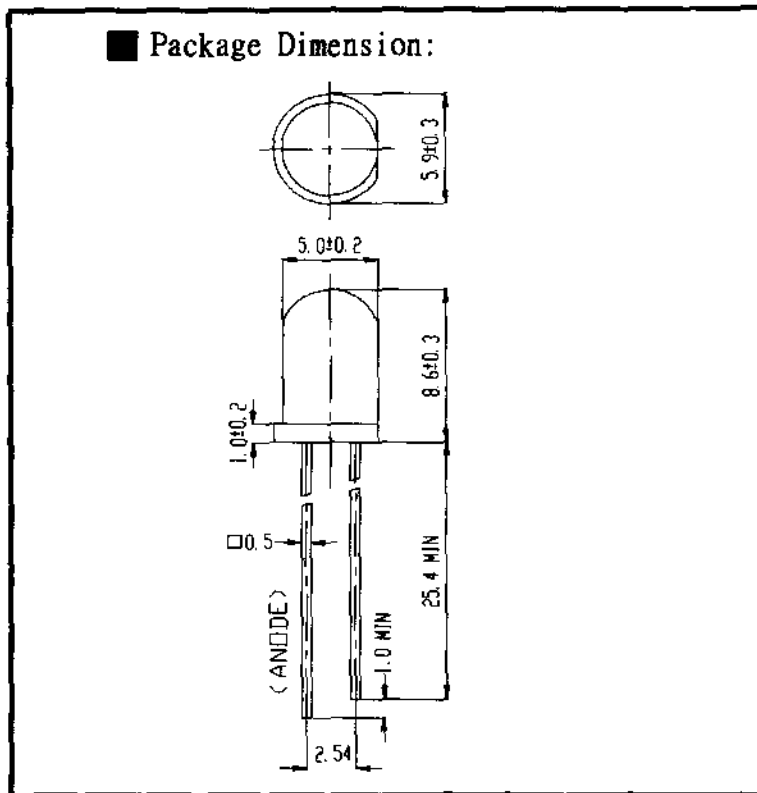
### ■ Description :

- The LED lamp is available with a choice of different colors, light intensities, epoxy colors, etc.

### ■ Applications :

- Audio Equipment
- Sign Board
- Car meter

### ■ Package Dimension:



### ■ NOTES :

- 1.All dimensions are millimeters(inch), tolerance is 0.25 mm except be specified.
- 2.An epoxy meniscus may extend about is 1.5mm(0.059") down the lead.

PART NO	CHIP		Lens Color
	Material	Emitted Color	
333-2SURC/S530-A2	AlGaInP	Hyper Red	Water Clear

DESIGNER	CHECKER	APPROVED

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## ■ Absolute Maximum Ratings at $T_A = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_r$	5	V
Reverse Current	$I_r$	10	$\mu\text{A}$
Operating Temperature	$T_{opr}$	-40 to +85	$^\circ\text{C}$
Soldering Temperature	$T_{sol}$	$260 \pm 5$	$^\circ\text{C}$
Power Dissipation	$P_d$	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	$I_f(\text{Peak})$	160	mA

## ■ Electronic Optical Characteristics :

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous intensity	$I_v$	344	837	/	mcd	$I_f = 20 \text{ mA}$
Viewing Angle	$2\theta_{1/2}$	/	10	/	deg	$I_f = 20 \text{ mA}$
Peak Wavelength	$\lambda_p$	/	639	/	nm	$I_f = 20 \text{ mA}$
Dominant Wavelength	$\lambda_d$	/	631	/	nm	$I_f = 20 \text{ mA}$
Spectrum Radiation Bandwidth	$\Delta\lambda$	/	20	/	nm	$I_f = 20 \text{ mA}$
Forward Voltage	$V_f$	1.7	2.0	2.4	V	$I_f = 20 \text{ mA}$
DC Forward Current	$I_f(\text{Rec})$	/	/	25	mA	



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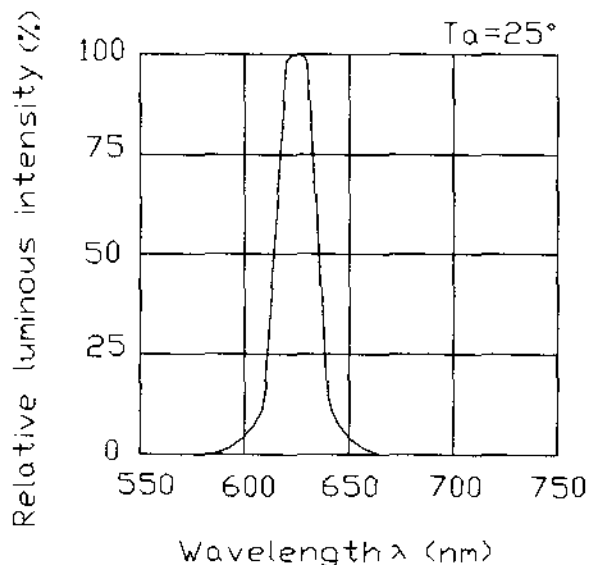
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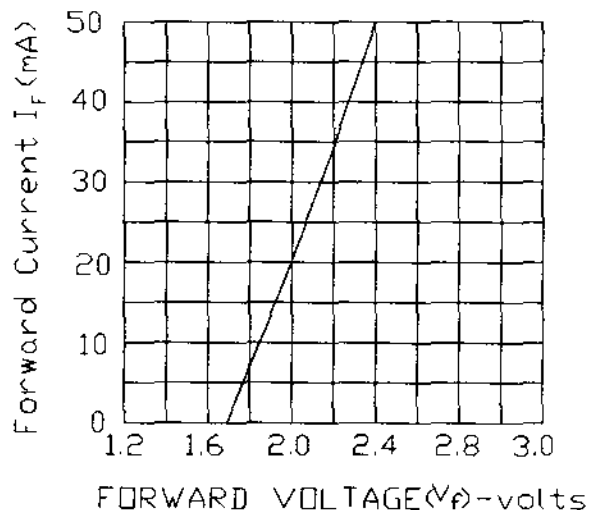
## Typical Electro-Optical Characteristic Curves

### (SUR)

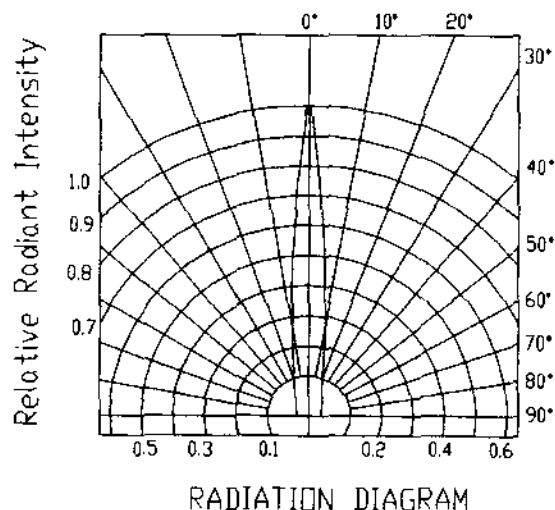
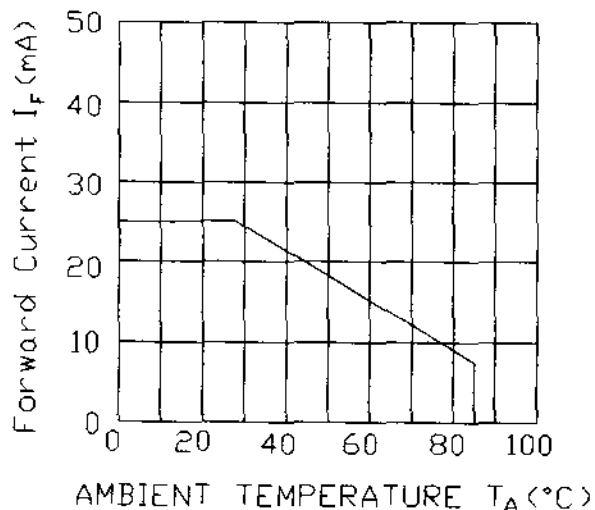
Spectrum Distribution



Forward Current vs. Forward Voltage



Forward Current Derating Curve





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## ■ Reliability test item and condition

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 CYCLE	76 Pcs	0/1
3	Thermal Shock	H : +100°C 5min § 10 sec L : -10°C 5min	50 CYCLE	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