# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-033-190 REV: 3

5.0mm Round Type LED Lamps

MODEL NO : 333-2SURC/S530-A2 ECN : Page: 1/4

## Features :

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

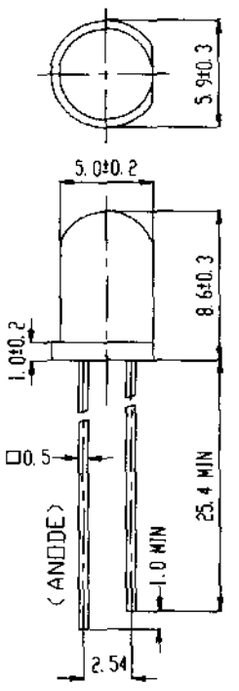
## Description :

- 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 |
|---|---|---|
| 恒光研一 JUL 23 肖亮 | / | 恒光研一 99.7.23 劉國林 |


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■ Absolute Maximum Ratings at $T_A$ = 25℃

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Reverse Voltage | Vr | 5 | V |
| Reverse Current | Ir | 10 | μA |
| Operating Temperature | Topr | -40 to +85 | ℃ |
| Soldering Temperature | Tsol | 260 ± 5 | ℃ |
| Power Dissipation | Pd | 100 | mW |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | If(Peak) | 160 | mA |

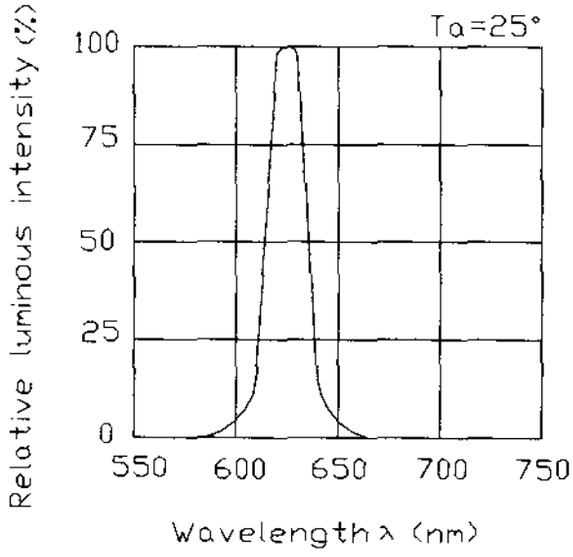
■ Electronic Optical Characteristics :

| Parameter | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|---|---|---|---|---|---|---|
| Luminous intensity | Iv | 344 | 837 | / | mcd | If= 20 mA |
| Viewing Angle | 2θ1/2 | / | 10 | / | deg | If= 20 mA |
| Peak Wavelength | λp | / | 639 | / | nm | If= 20 mA |
| Dominant Wavelength | λd | / | 631 | / | nm | If= 20 mA |
| Spectrum Rediation Bandwidth | △λ | / | 20 | / | nm | If= 20 mA |
| Forward Voltage | Vf | 1.7 | 2.0 | 2.4 | V | If= 20 mA |
| DC Forward Current | If(Rec) | / | / | 25 | mA | |

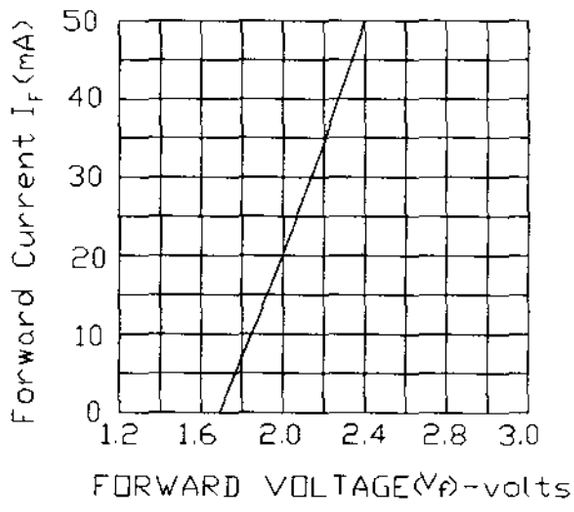
## ■ Typical Electro-Optical Characteristic Curres

(SUR)

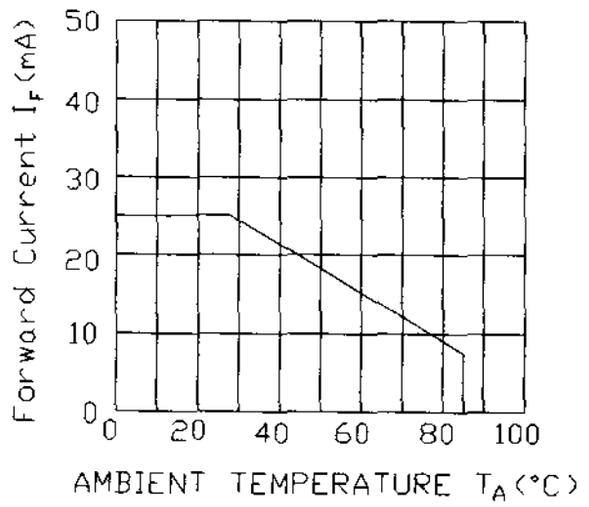
Spectrum Distribution

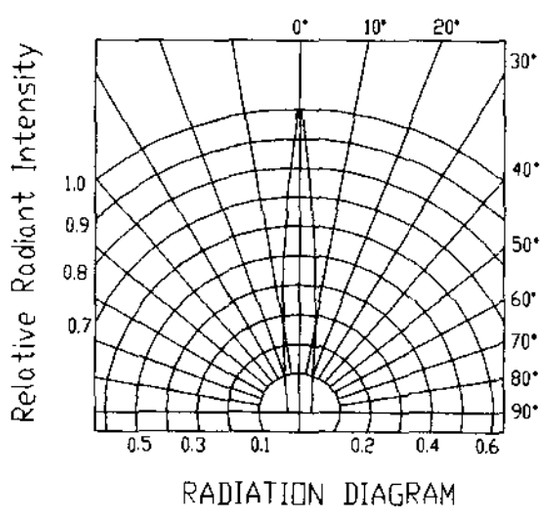



Forward Current vs. Forward Voltage




Forward Current Derating Curve



■ Reliability test item and condition

| NO | Item | Test Conditions | Test Hours/Cycle | Sample Size | Ac/Re |
|---|---|---|---|---|---|
| 1 | Solder Heat | TEMP : 260℃ ± 5 ℃ | 5 SEC | 76 Pcs | 0/1 |
| 2 | Temperature Cycle | H : +85℃ 30min<br>∫ 5 min<br>L : -55℃ 30min | 50 CYCLE | 76 Pcs | 0/1 |
| 3 | Thermal Shock | H : +100℃ 5min<br>∫ 10 sec<br>L : -10℃ 5min | 50 CYCLE | 76 Pcs | 0/1 |
| 4 | High Temperature Storage | TEMP : 100℃ | 1000 HRS | 76 Pcs | 0/1 |
| 5 | Low Temperature Storage | TEMP : -55℃ | 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℃/85% RH | 1000 HRS | 76 Pcs | 0/1 |