# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-033-780 REV: 1.0

5.0mm Bi-Color (Multi-Color)With common Cathode(0.1"Lead Pitch)LEDs,T-1 3/4

PART NO : 339-1SURSYGW/S530-A2 ECN : Page: 1/5

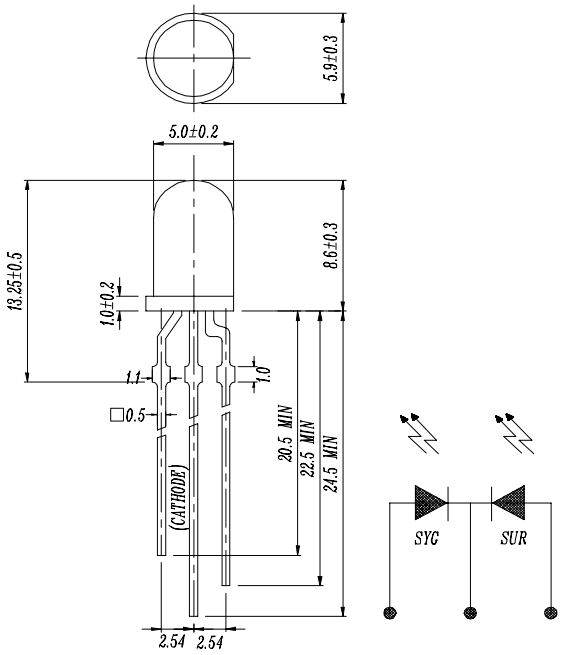
## ■ Features :

- Two chips are matched for uniform light output, wide viewing angle
- Long life-solid state reliability
- IC compatible/Low power consumpting

## ■ Descriptions :

- The 339-1 LED lamp contain two integral chips and is available as both bicolor and bipolar types.
- The Hyper Red and Super Yellow Green Light is emitted by diodes of AlGaInP and AlGaInP respectively.

## ■ Package Dimensions:




## ■ Applications :

- TV set
- Monitor
- Telephone
- Computer

## ■ Notes :

1. All dimensions are millimeters.
2. An epoxy meniscus may extend about is 1.5mm(0.059") down the lead.

| PART NO | Chip | | Lens Color |
|---|---|---|---|
| | Material | Emitted Color | |
| 339-1SURSYGW/S530-A2 | AlGaInP | Hyper Red | White Diffused |
| | AlGaInP | Super Yellow Green | |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## ■ Absolute Maximum Ratings at Ta = 25℃

| Parameter | Symbol | Rating | | Unit |
|---|---|---|---|---|
| Forward Current | $I_F$ | SUR | 25 | mA |
| | | SYG | 25 | |
| Operating Temperature | Topr | -40 to +85 | | ℃ |
| Storage Temperature | Tstg | -40 to +100 | | ℃ |
| Soldering Temperature | Tsol | 260 ± 5 | | ℃ |
| Electrostatic Discharge | ESD | 2000 | | V |
| Power Dissipation | Pd | SUR | 60 | mW |
| | | SYG | 60 | |
| Peak Forward Current (Duty 1/10 @ 1KHZ) | $I_F$(Peak) | SUR | 160 | mA |
| | | SYG | 160 | |
| Reverse Voltage | $V_F$ | 5 | | V |

## ■ Electronic Optical Characteristics :

| Parameter | Symbol | | Min. | Typ. | Max. | Unit | Condition |
|---|---|---|---|---|---|---|---|
| Luminous Intensity | Iv | SUR | 63 | 100 | ／ | mcd | $I_F$= 20 mA |
| | | SYG | 40 | 63 | ／ | | |
| Viewing Angle | 2θ1/2 | | ／ | 30 | ／ | deg | $I_F$= 20 mA |
| Peak Wavelength | λp | SUR | ／ | 632 | ／ | nm | $I_F$= 20 mA |
| | | SYG | ／ | 575 | ／ | | |
| Dominant Wavelength | λd | SUR | ／ | 624 | ／ | nm | $I_F$= 20 mA |
| | | SYG | ／ | 573 | ／ | | |
| Spectrum Radiation Bandwidth | △λ | SUR | ／ | 20 | ／ | nm | $I_F$= 20 mA |
| | | SYG | ／ | 20 | ／ | | |
| Forward Voltage | $V_F$ | SUR | ／ | 2.0 | 2.4 | V | $I_F$= 20 mA |
| | | SYG | ／ | 2.0 | 2.4 | | |
| Reverse Current | $I_R$ | | ／ | ／ | 10 | μA | $V_R$= 5 V |

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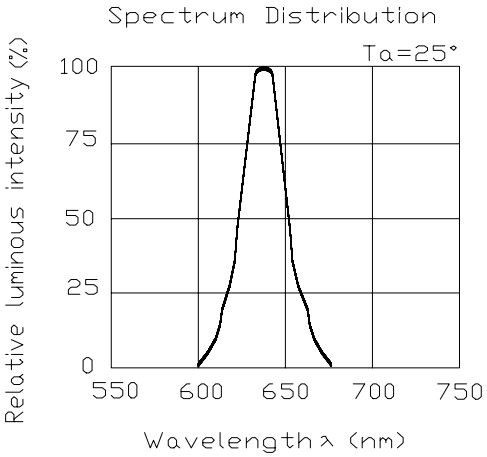
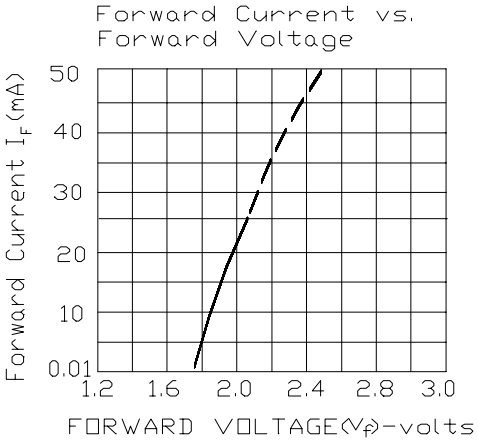
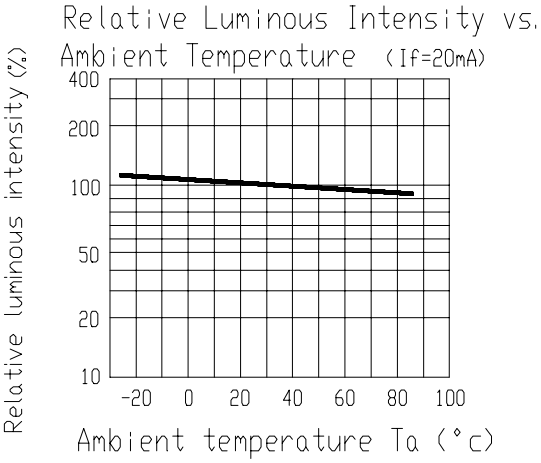
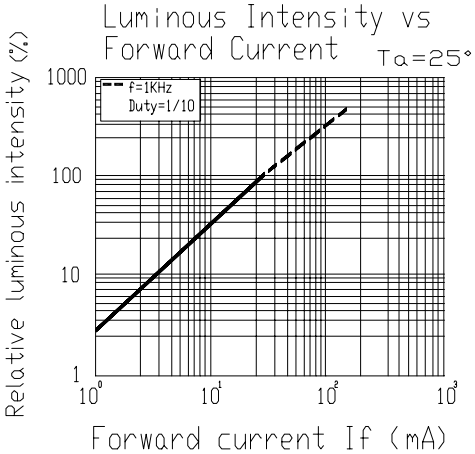
## ■ Typical Electro-Optical Characteristic Curves

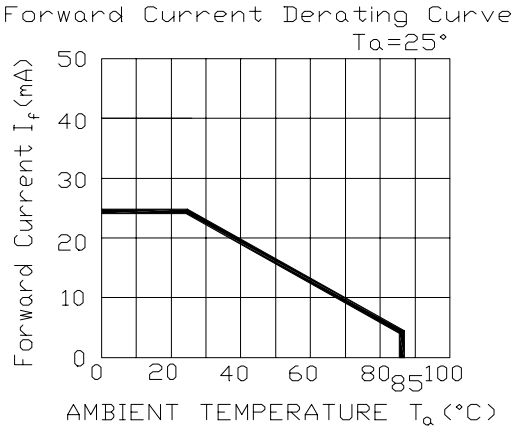
SUR

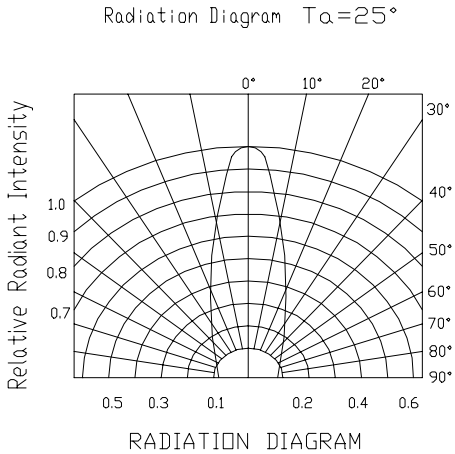


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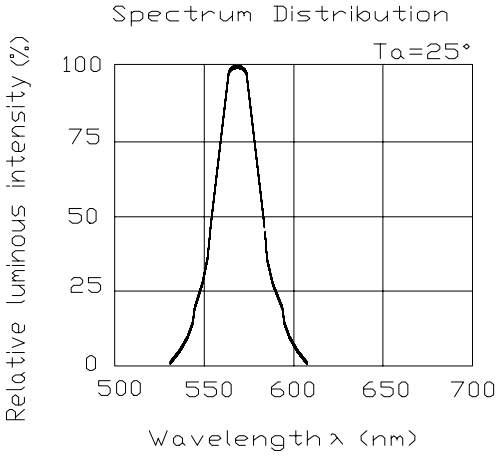
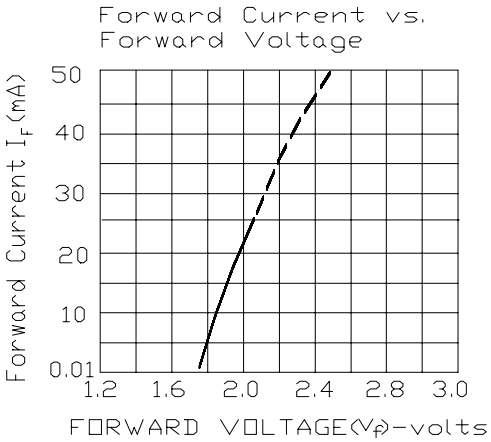
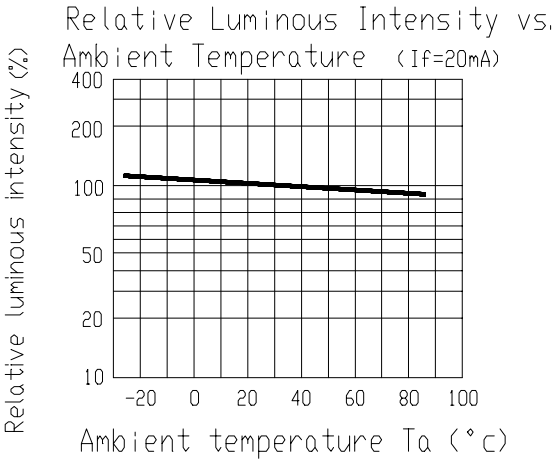
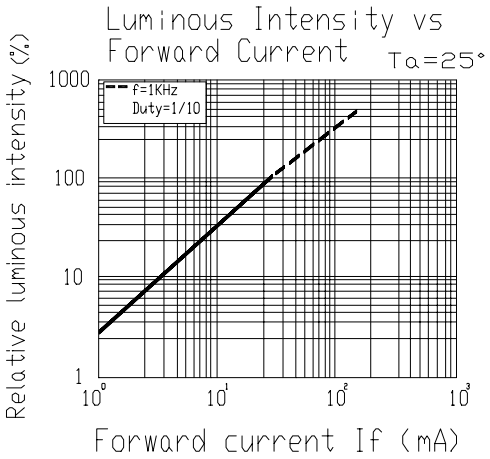
## ■ Typical Electro-Optical Characteristic Curves

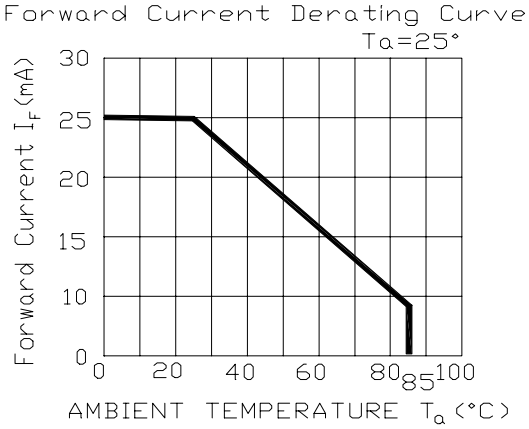
SYG

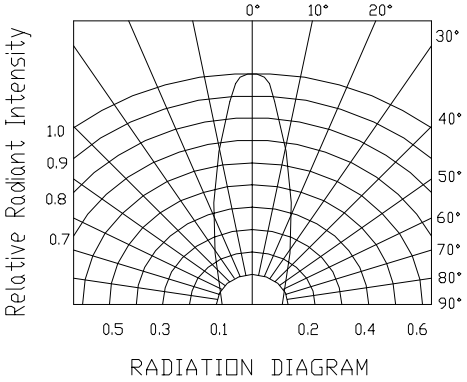


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■ Reliability test items and conditions

| NO | Item | Test Conditions | Test Hours/Cycle | Sample Size | Ac/Re |
|---|---|---|---|---|---|
| 1 | Solder Heat | TEMP : 260℃ ± 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 |