



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-033-129 REV: 1.2

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

PART NO. : 339-1HGW 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 consumption

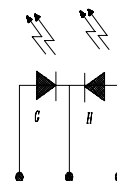
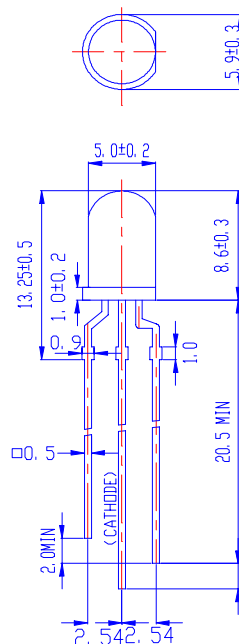
## ■ Descriptions :

- The 339-1 LED lamps contain two integral chips and is available as both bicolor and bipolar types.
- The Bright Red Light and Green light is emitted by diodes of GaP and GaP respectively.

## ■ 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  $\pm 0.25$ mm

| PART NO  | Chip     |               | Lens Color     |
|----------|----------|---------------|----------------|
|          | Material | Emitted Color |                |
| 339-1HGW | GaP      | Bright Red    | White Diffused |
|          | GaP      | Green         |                |

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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                            | IF       | H 15        | mA   |
|                                            |          | G 30        |      |
| Operating Temperature                      | Topr     | -40 to +85  | °C   |
| Storage Temperature                        | Tstg     | -40 to +100 | °C   |
| Soldering Temperature                      | Tsol     | 260 ± 5     | °C   |
| Power Dissipation                          | Pd       | H 45        | mW   |
|                                            |          | G 100       |      |
| Peak Forward Current<br>(Duty 1/10 @ 1KHz) | IF(Peak) | H 50        | mA   |
|                                            |          | G 160       |      |
| Reverse Voltage                            | VR       | 5           | V    |

## ■ Electronic Optical Characteristics :

| Parameter                    | Symbol | Min.   | Typ. | Max. | Unit | Condition |
|------------------------------|--------|--------|------|------|------|-----------|
| Luminous Intensity           | Iv     | H 1.00 | 1.60 | /    | mcd  | IF= 10 mA |
|                              |        | G 4.00 | 6.30 | /    |      |           |
| Viewing Angle                | 2θ 1/2 | /      | 60   | /    | deg  | IF= 10 mA |
| Peak Wavelength              | λ p    | H /    | 697  | /    | nm   | IF= 10 mA |
|                              |        | G /    | 565  | /    |      | IF= 20 mA |
| Dominant Wavelength          | λ d    | H /    | 650  | /    | nm   | IF= 10 mA |
|                              |        | G /    | 570  | /    |      | IF= 20 mA |
| Spectrum Radiation Bandwidth | △ λ    | H /    | 90   | /    | nm   | IF= 10 mA |
|                              |        | G /    | 30   | /    |      | IF= 20 mA |
| Forward Voltage              | VF     | H 1.5  | 2.0  | 2.4  | V    | IF= 10 mA |
|                              |        | G 1.7  | 2.1  | 2.4  |      | IF= 20 mA |
| Reverse Current              | IR     | /      | /    | 10   | μ A  | VR= 5 V   |



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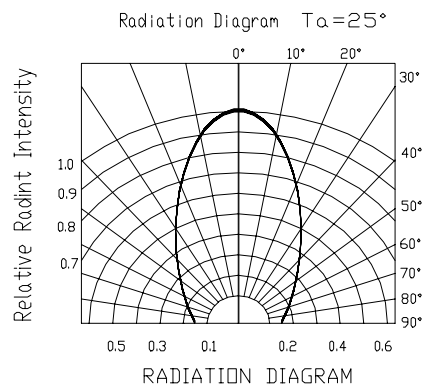
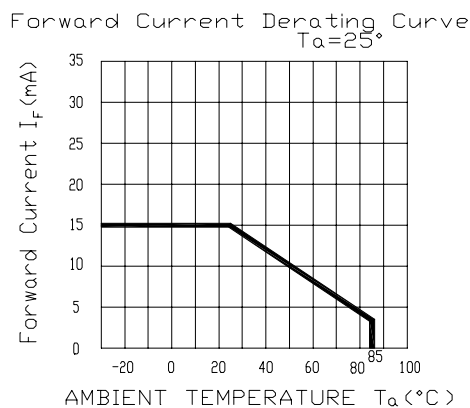
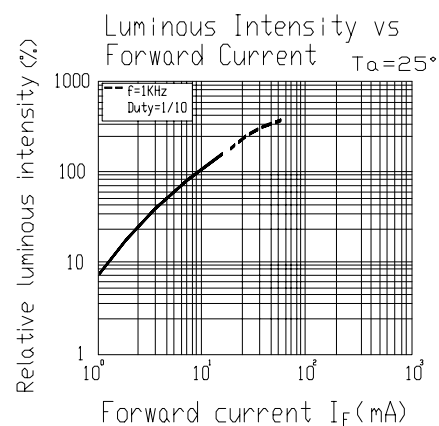
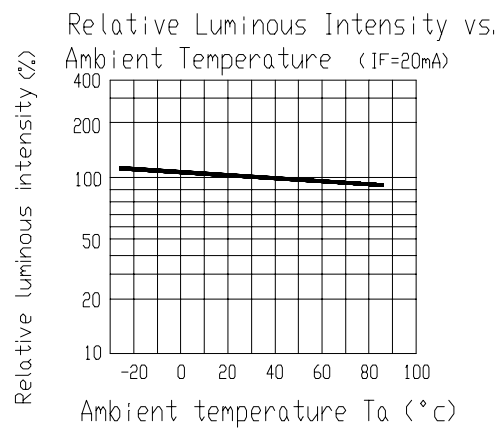
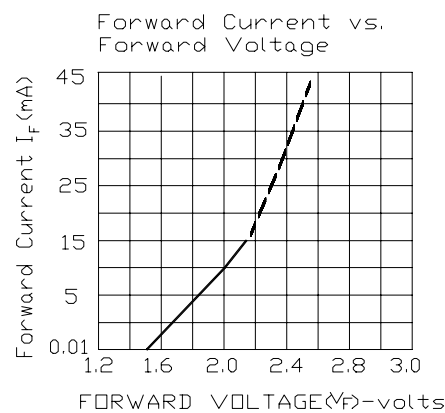
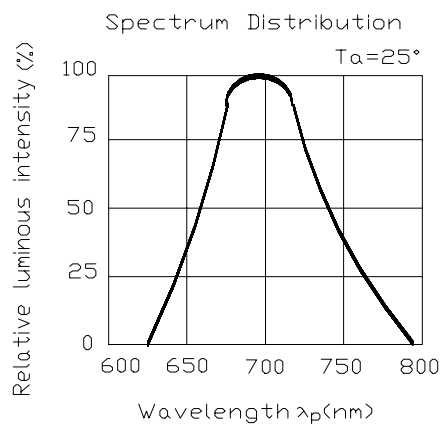
PART NO. : 339-1HGW

ECN :

Page: 3/5

## ■ Typical Electro-Optical Characteristic Curves:

H





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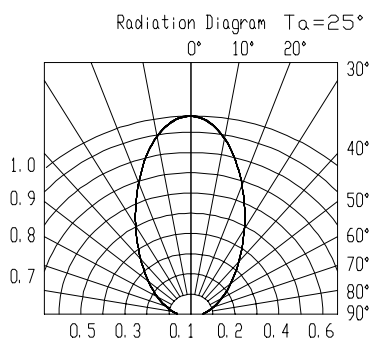
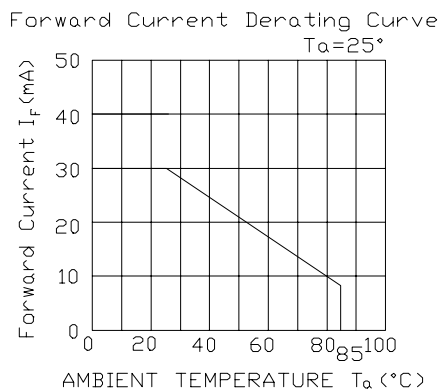
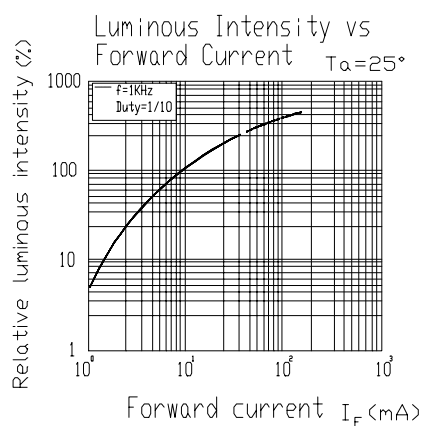
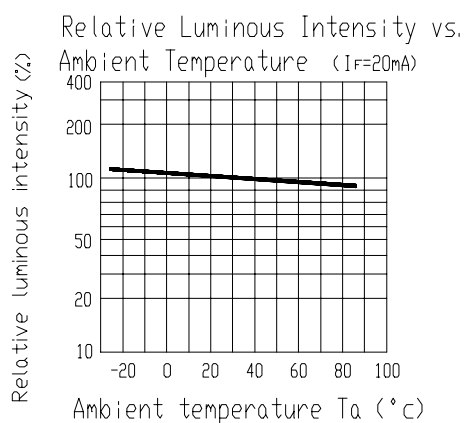
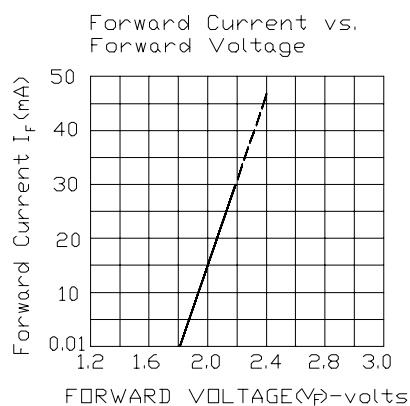
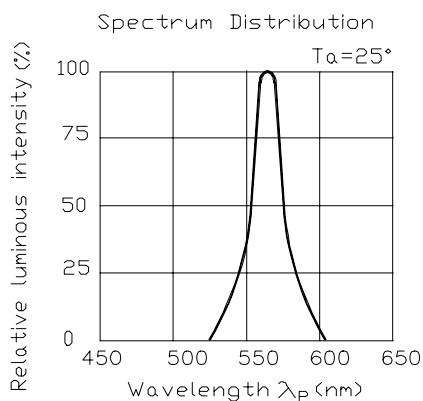
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PART NO. : 339-1HGW ECN :                      Page: 4/5

## ■ Typical Electro-Optical Characteristic Curves:

G





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PART NO. : 339-1HGW ECN :  Page: 5/5

## ■ 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<br>└ 5 min<br>L : -55°C 30min | 50 CYCLES        | 76 PCS      | 0/1   |
| 3  | Thermal Shock                    | H : +100°C 5min<br>└ 10 sec<br>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=10mA                           | 1000 HRS         | 76 PCS      | 0/1   |
| 7  | High Temperature / High Humidity | 85°C/85% RH                                   | 1000 HRS         | 76 PCS      | 0/1   |