


## ◎ SURFACE MOUNT LED LAMPS

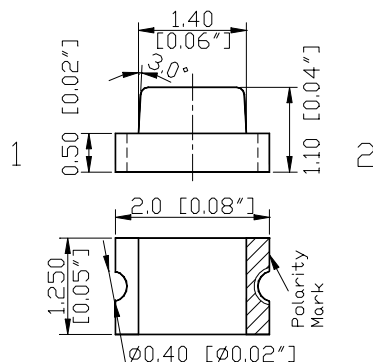
### 表面黏著型發光二極體指示燈

Rev : A    Date : 2001/10/01

| GH-S170 Series Electro-Optical Characteristics: |                   |          |                    |      |                |                |    |                      |  |
|---|-------------------|----------|--------------------|------|----------------|----------------|----|----------------------|--|
| Code for parts<br>GH-XXXXX                      | Lighting<br>Color | Material | V <sub>F</sub> (V) |      | λ (nm)         |                |    | I <sub>V</sub> (mcd) | Internal<br>Circuit  |
|   |                   |          | typ                | max  | λ <sub>D</sub> | λ <sub>P</sub> | Δλ | typ                  |  |
| RSS170TS-ESE                                    | Red               | GaAlAs   | 1.80               | 2.30 | 643            | 660            | 25 | 19                   |  |
| RSS170TS-DPG                                    | Red               | AlGaInP  | 1.90               | 2.40 | 631            | 640            | 23 | 52                   |  |
| OLS170TS-DPG                                    | Orange            | AlGaInP  | 1.90               | 2.40 | 624            | 634            | 25 | 67                   |  |
| OIS170TS-DPG                                    | Orange            | AlGaInP  | 1.90               | 2.40 | 615            | 620            | 18 | 75                   |  |
| AJS170TS-DPG                                    | Amber             | AlGaInP  | 1.90               | 2.40 | 605            | 610            | 25 | 52                   |  |
| ALS170TS-DPG                                    | Amber             | AlGaInP  | 1.90               | 2.40 | 595            | 598            | 20 | 75                   |  |
| YVS170TS-DPE                                    | Yellow            | AlGaInP  | 2.00               | 2.50 | 593            | 594            | 32 | 57                   |  |
| YHS170TS-EPE                                    | Yellow            | GaAsP    | 2.10               | 2.50 | 587            | 586            | 37 | 7                    |  |
| GBS170TS-DPG                                    | Green             | AlGaInP  | 2.10               | 2.60 | 578            | 575            | 18 | 37                   |  |
| GUS170TS-EPE                                    | Green             | GaP      | 2.25               | 2.70 | 572            | 567            | 32 | 17                   |  |
| GPS170TS-EPE                                    | Green             | GaP      | 2.20               | 2.70 | 573            | 567            | 30 | 15                   |  |
| GES170TS-IPG                                    | Green             | InGaN    | 3.20               | 3.80 | 527            | 525            | 40 | 120                  |  |
| GGs170TS-IPG                                    | Green             | InGaN    | 3.30               | 4.00 | 509            | 505            | 37 | 120                  |  |
| BJS170TS-JPH                                    | Blue              | InGaN    | 3.40               | 4.00 | 465            | 460            | 68 | 36                   |  |
| BVS170TS-EPC                                    | Blue              | GaN/SiC  | 4.00               | 4.50 | 465            | 430            | 60 | 8                    |  |



## ◎ Package Outline Drawing:

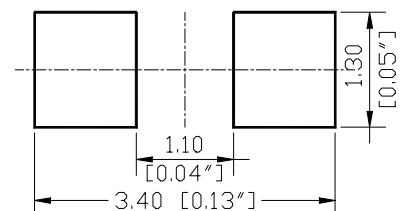


- NOTES:**
1. All dimensions are in millimeters (inches);
  2. Tolerance are  $\pm 0.1\text{mm}$  (0.004inch) unless otherwise noted;
  3. Resin color: water clear.

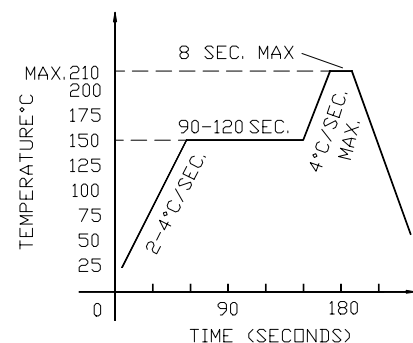
### \* Soldering iron

Basic spec is  $\leq 5\text{sec}$  when  $260^\circ\text{C}$ . If temperature is higher, time should be shorter ( $+10^\circ\text{C} \rightarrow -1\text{sec}$ ). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. Surface temperature of the device should be under  $230^\circ\text{C}$ .

### \* Recommended Soldering Pattern For Reflow Soldering



### \* Recommended Reflow Soldering Profile.



## ◎ Absolute Maximum Ratings:

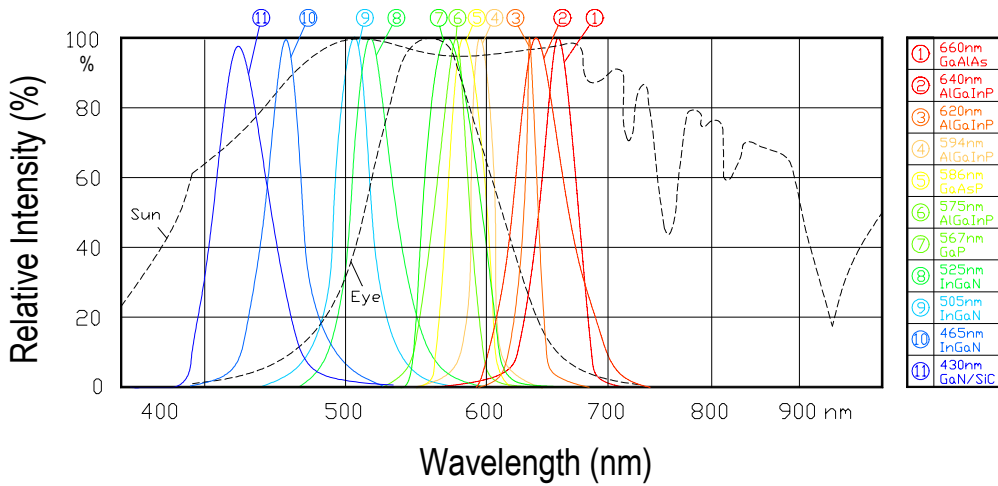
| Series         | I <sub>F</sub> (mA) | *I <sub>FP</sub> (mA) | V <sub>R</sub> (V) | T <sub>OP</sub> (°C) | T <sub>ST</sub> (°C) |
|----------------|---------------------|-----------------------|--------------------|----------------------|----------------------|
| GH-S170 Series | 30                  | 120                   | 5                  | -20~+80              | -20~+100             |

\*Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width

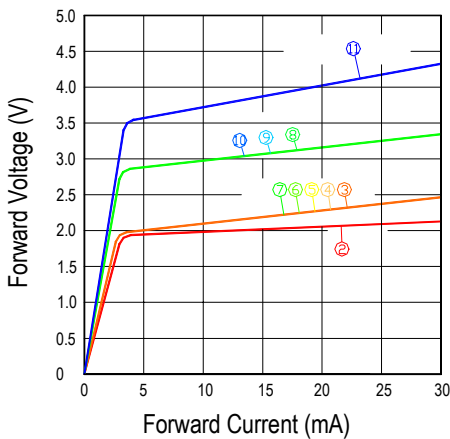
## \* Optical Characteristic Curves Of GH-S170 Series

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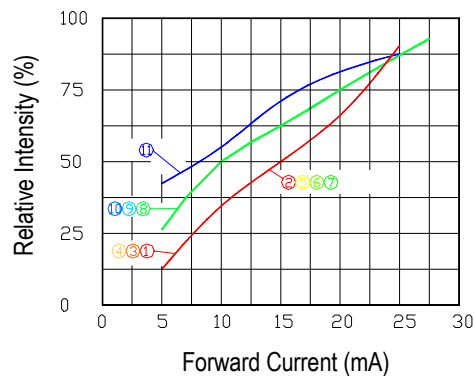
Relative Intensity vs. Wavelength



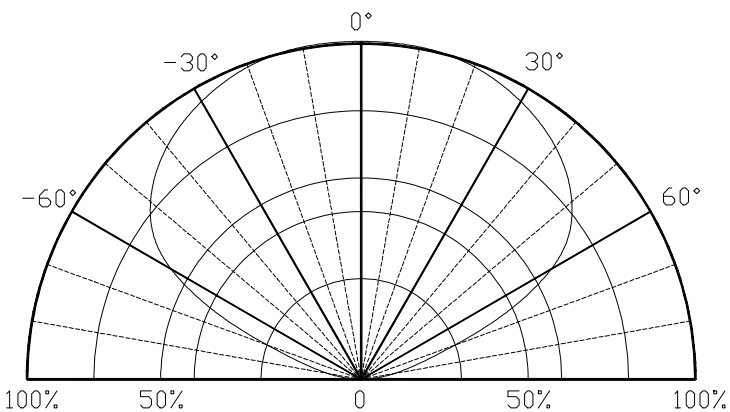
Forward Current vs. Forward Voltage



Relative Intensity vs. Forward Current

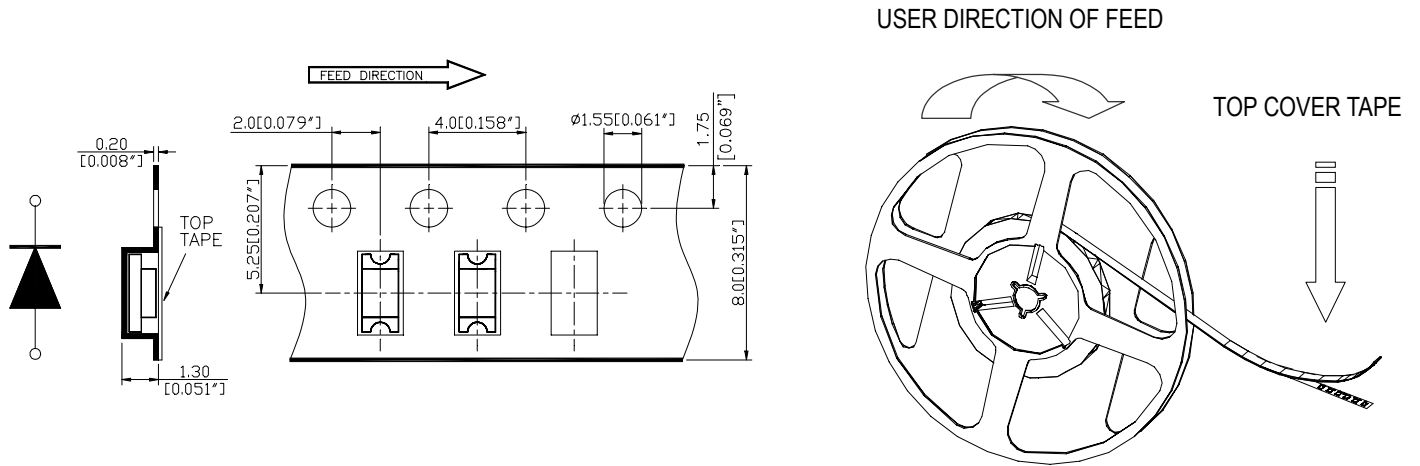


Directive Characteristics

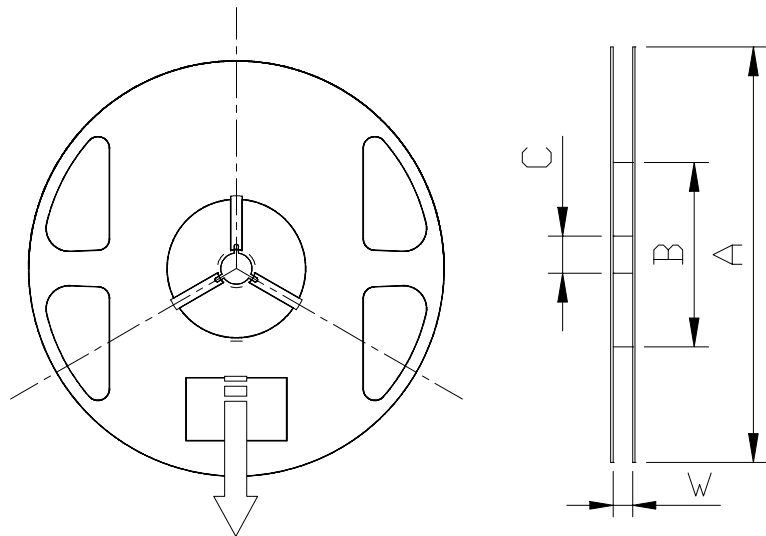



## \*Tape And Reel Of GH-S170 Series

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|  |            |
|--|------------|
| Dimensions per ANSI/EIA Standard RS-481<br>All dimensions are in millimeters (inches). |            |
| A  | 180[7.09]  |
| B  | 60[2.36]   |
| C  | 13.5[0.53] |
| W  | 8.4[0.33]  |
| Thickness of top cover tape<br>0.1[0.004"] MAX   |            |



|   |  |
|---|--|
|  GRAND HALO ELECTRONIC LTD |  |
| PART NO.  |  |
| LOT NO.   |  |
| QUANTITY  |  |
| DATE  |  |
| DATA  |  |

### NOTES:

1. Empty component pockets are sealed with top cover tape;
2. Minimum leader length at both ends of the tape is 450 mm;
3. The maximum number of missing lamps is two;
4. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications.
5. 3000pcs/Reel