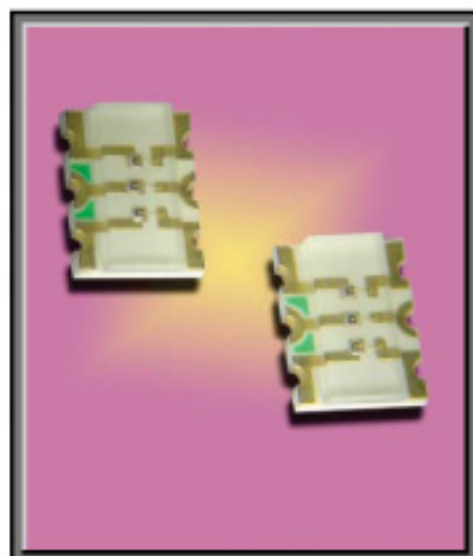


## ◎ SURFACE MOUNT LED LAMPS

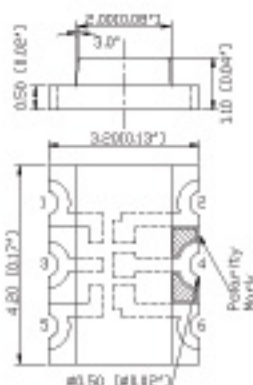
表面黏著型發光二極體指示燈

### GH-S158 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 | Min                  |                                                                                   |
| WPS158TS-E7E               | Red               | AlGaInP  | 2.00               | 2.50 | 630            | 640            | 20 | 80                   |  |
|                            | Yellow            | AlGaInP  | 2.00               | 2.50 | 590            | 595            | 20 | 80                   |                                                                                   |
|                            | Blue              | GaInN    | 3.50               | 4.00 | 465            | 460            | 30 | 40                   |                                                                                   |
| WPS158TS-E5H               | Red               | AlGaInP  | 2.00               | 2.50 | 630            | 640            | 20 | 80                   |                                                                                   |
|                            | Green             | GaInN    | 3.30               | 3.80 | 525            | 520            | 30 | 160                  |                                                                                   |
|                            | Blue              | GaInN    | 3.50               | 4.00 | 465            | 460            | 30 | 40                   |                                                                                   |
| WPS158TS-E6H               | Orange            | AlGaInP  | 2.20               | 2.70 | 624            | 635            | 20 | 80                   |                                                                                   |
|                            | Green             | GaInN    | 3.30               | 3.80 | 525            | 520            | 30 | 160                  |                                                                                   |
|                            | Blue              | GaInN    | 3.50               | 4.00 | 465            | 460            | 30 | 40                   |                                                                                   |



## ◎ Package Outline Drawing:

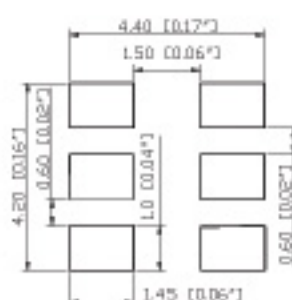


NOTES: 1. All dimensions are in millimeters (inches);  
2. Tolerances are  $\pm 0.1\text{mm}$  (0.004inch) unless otherwise noted;  
3. Resin color: water clear.

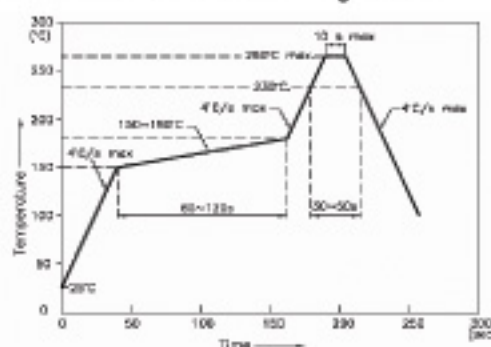
### ★ Soldering iron

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-S158 Series | 30                  | 120                   | 5                  | -40~+80              | -40~+85              |

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