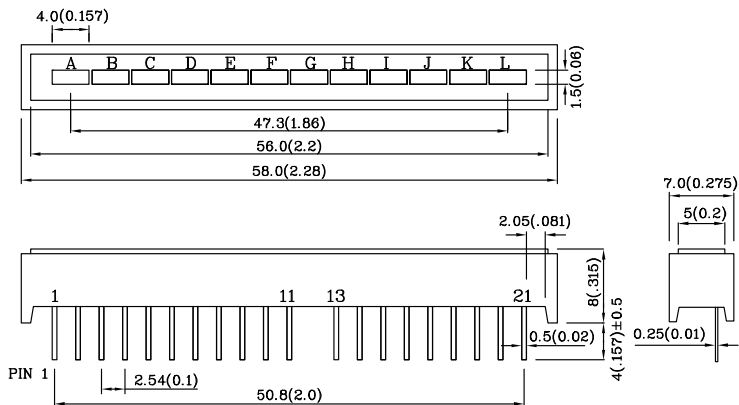
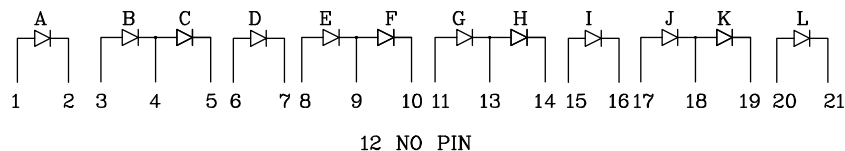


## Features

- SUITABLE FOR LEVEL INDICATORS.
- LOW CURRENT OPERATION.
- WIDE VIEWING ANGLE.
- MECHANICALLY RUGGED.
- DIFFERENT COLORS IN ONE UNIT AVAILABLE.
- BLACK FACE, WHITE SEGMENT.
- RoHS COMPLIANT.



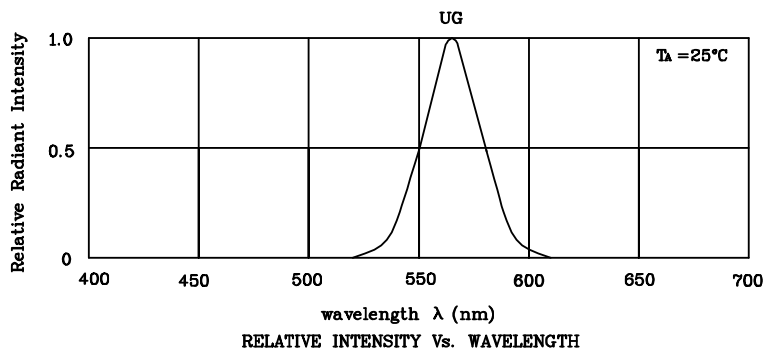
## Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise note
3. Specifications are subject to change without notice.

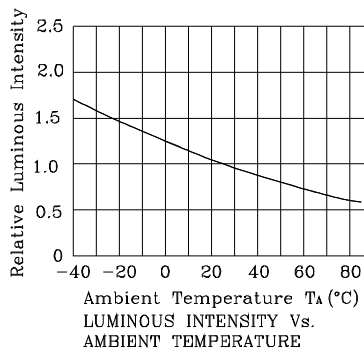
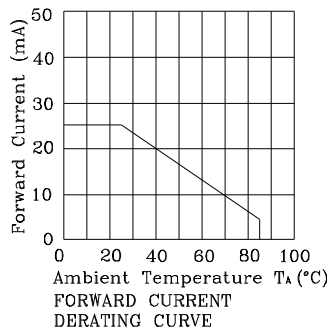
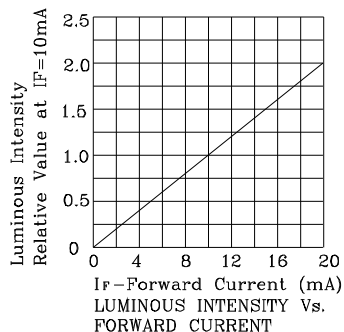
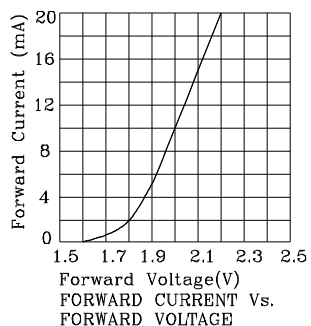
| Absolute Maximum Ratings<br>(T <sub>A</sub> =25°C)             |                       | UG<br>(GaP) | Unit |
|----------------------------------------------------------------|-----------------------|-------------|------|
| Reverse Voltage                                                | V <sub>R</sub>        | 5           | V    |
| Forward Current                                                | I <sub>F</sub>        | 25          | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | i <sub>FS</sub>       | 140         | mA   |
| Power Dissipation                                              | P <sub>T</sub>        | 62.5        | mW   |
| Operating Temperature                                          | T <sub>A</sub>        | -40 ~ +85   | °C   |
| Storage Temperature                                            | T <sub>stg</sub>      | -40 ~ +85   |      |
| Lead Solder Temperature<br>[2mm Below Package Base]            | 260°C For 3~5 Seconds |             |      |

| Operating Characteristics<br>(TA=25°C)                          |                 | UG<br>(GaP) | Unit |
|-----------------------------------------------------------------|-----------------|-------------|------|
| Forward Voltage (Typ.)<br>(IF=10mA)                             | VF              | 2.0         | V    |
| Forward Voltage (Max.)<br>(IF=10mA)                             | VF              | 2.5         | V    |
| Reverse Current (Max.)<br>(VR=5V)                               | IR              | 10          | uA   |
| Wavelength of Peak<br>Emission (Typ.)<br>(IF=10mA)              | $\lambda P$     | 565         | nm   |
| Wavelength of Dominant<br>Emission (Typ.)<br>(IF=10mA)          | $\lambda D$     | 568         | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(IF=10mA) | $\Delta\lambda$ | 30          | nm   |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)                           | C               | 15          | pF   |

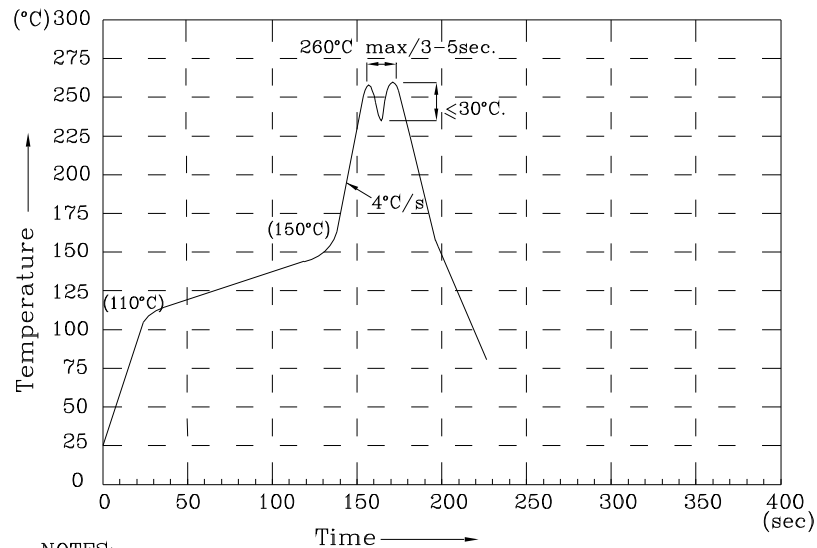
| Part<br>Number                                                                                     | Emitting<br>Color | Emitting<br>Material | Luminous<br>Intensity<br>(IF=10mA)<br>ucd | Wavelength<br>nm<br>$\lambda P$ | Description                            |
|----------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------------------------------------|---------------------------------|----------------------------------------|
|                                                                                                    |                   |                      | min.                                      | typ.                            |                                        |
| HUGX12DWB                                                                                          | Green             | GaP                  | 3000                                      | 15990                           | 565<br>12 Segments<br>Bargraph-Display |
| Published Date : MAR 17,2008      Drawing No : SDSA3722      V4      Checked : Shin Chi      P.1/4 |                   |                      |                                           |                                 |                                        |



❖ **UG**



### Wave Soldering Profile For Lead-free Through-hole LED.



#### NOTES:

1. Recommend the wave temperature  $245^{\circ}\text{C} \sim 260^{\circ}\text{C}$ . The maximum soldering temperature should be less than  $260^{\circ}\text{C}$ .
2. Do not apply stress on epoxy resins when temperature is over  $85^{\circ}\text{C}$ .
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.

#### Remarks:

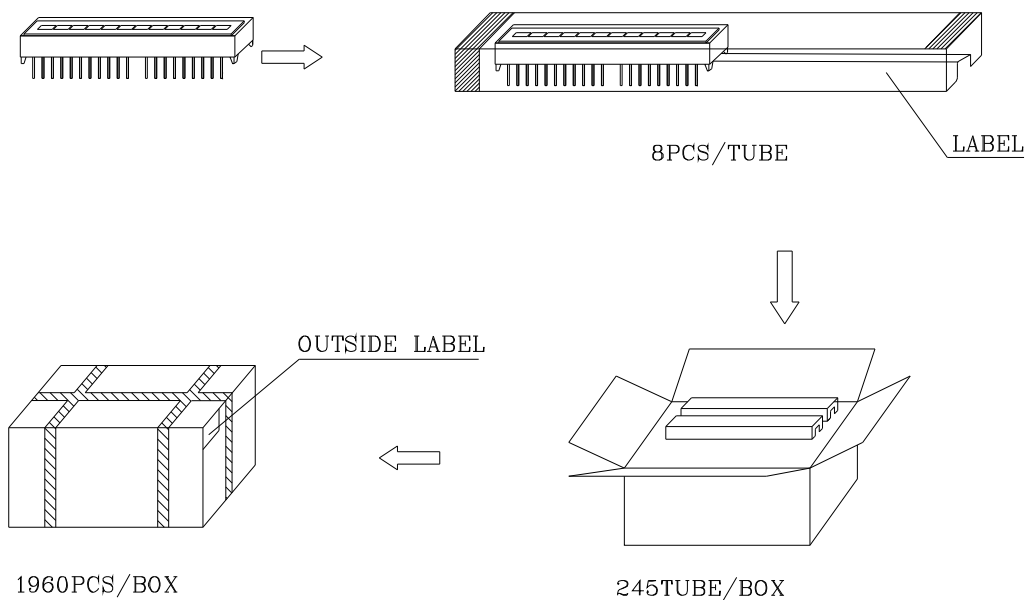
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength:  $\pm 1\text{nm}$
2. Luminous intensity / luminous flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1\text{V}$

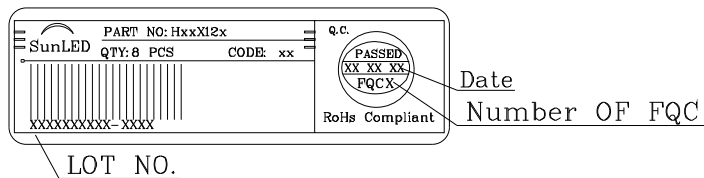
Note: Accuracy may depend on the sorting parameters.

**PACKING & LABEL SPECIFICATIONS**

**HUGX12DWB**



Inside LABEL Paste On The IC-tube



Outside LABEL Paste On The Box

