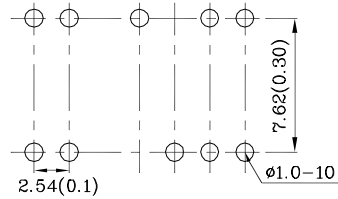


**Features**

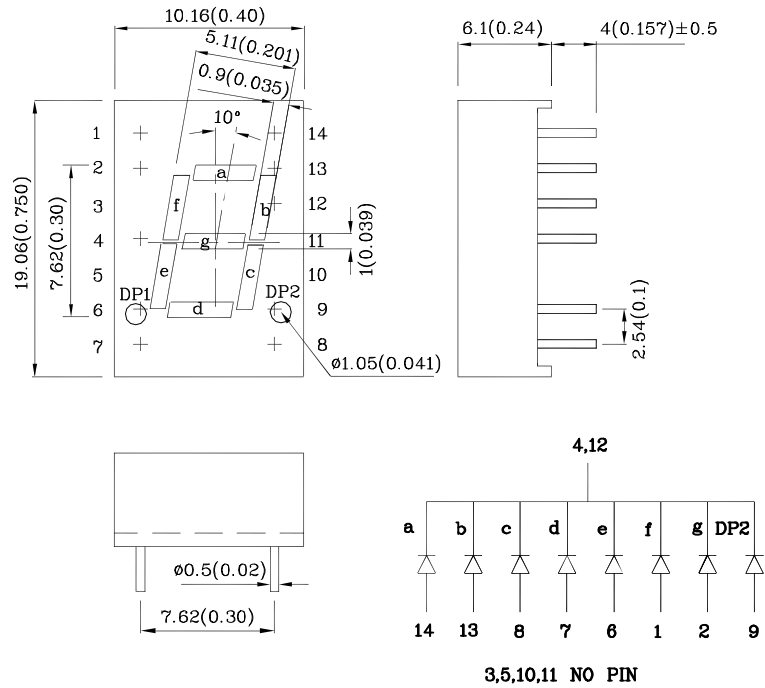
- Low power consumption
- Robust package
- I.C. Compatible
- Standard configuration: Gray face w/ white segments
- Optional black face provides superior color contrast
- RoHS Compliant



**RECOMMENDED PCB LAYOUT**



**Package Schematics**



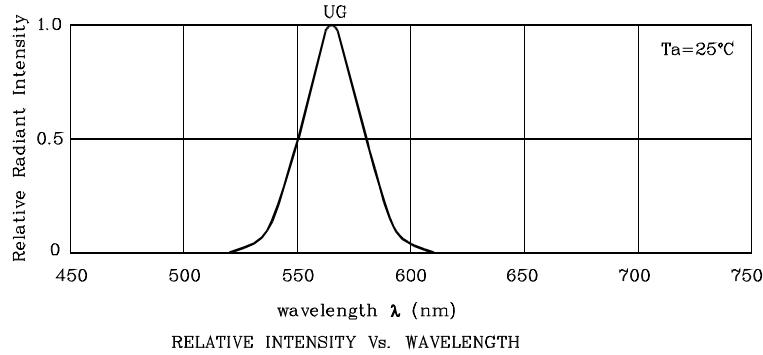
**Notes:**

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

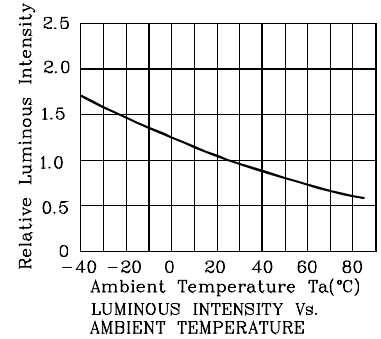
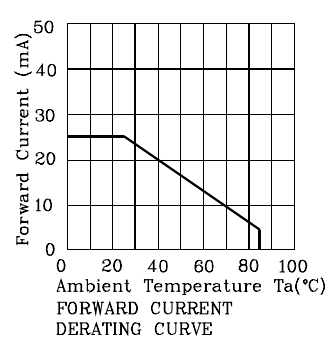
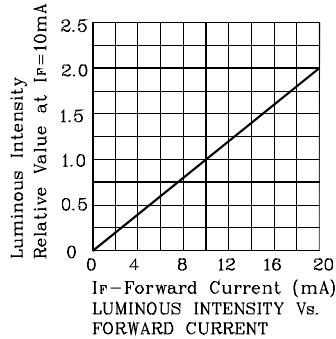
| Absolute Maximum Ratings<br>( $T_A=25^\circ\text{C}$ )         |                       | UG<br>(GaP) | Unit |
|----------------------------------------------------------------|-----------------------|-------------|------|
| Reverse Voltage                                                | $V_R$                 | 5           | V    |
| Forward Current                                                | $I_F$                 | 25          | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{FS}$              | 140         | mA   |
| Power Dissipation                                              | $P_D$                 | 62.5        | mW   |
| Operating Temperature                                          | $T_A$                 | -40 ~ +85   | °C   |
| Storage Temperature                                            | $T_{stg}$             | -40 ~ +85   |      |
| Lead Solder Temperature<br>[2mm Below Package Base]            | 260°C For 3-5 Seconds |             |      |

| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                     |                 | UG<br>(GaP) | Unit          |
|-----------------------------------------------------------------------------|-----------------|-------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=10\text{mA}$ )                             | $V_F$           | 2           | V             |
| Forward Voltage (Max.)<br>( $I_F=10\text{mA}$ )                             | $V_F$           | 2.5         | V             |
| Reverse Current (Max.)<br>( $V_R=5\text{V}$ )                               | $I_R$           | 10          | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission (Typ.)<br>( $I_F=10\text{mA}$ )              | $\lambda_P$     | 565         | nm            |
| Wavelength of Dominant<br>Emission (Typ.)<br>( $I_F=10\text{mA}$ )          | $\lambda_D$     | 568         | nm            |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>( $I_F=10\text{mA}$ ) | $\Delta\lambda$ | 30          | nm            |
| Capacitance (Typ.)<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                 | C               | 15          | pF            |

| Part Number | Emitting Color | Emitting Material | Luminous Intensity<br>( $I_F=10\text{mA}$ )<br>ucd |       | Wavelength<br>nm<br>$\lambda_P$ | Description                          |
|-------------|----------------|-------------------|----------------------------------------------------|-------|---------------------------------|--------------------------------------|
|             |                |                   | min.                                               | typ.  |                                 |                                      |
| XDUG07C     | Green          | GaP               | 5600                                               | 10990 | 565                             | Common Cathode,<br>Rt. Hand Decimal. |



❖ UG



Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)



NOTES:

1. Recommend the wave temperature 245°C~260°C. The maximum soldering temperature should be less than 260°C.
2. Do not apply stress on epoxy resins when temperature is over 85°C.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. During wave soldering, the PCB top-surface temperature should be kept below 105°C.
5. No more than once.

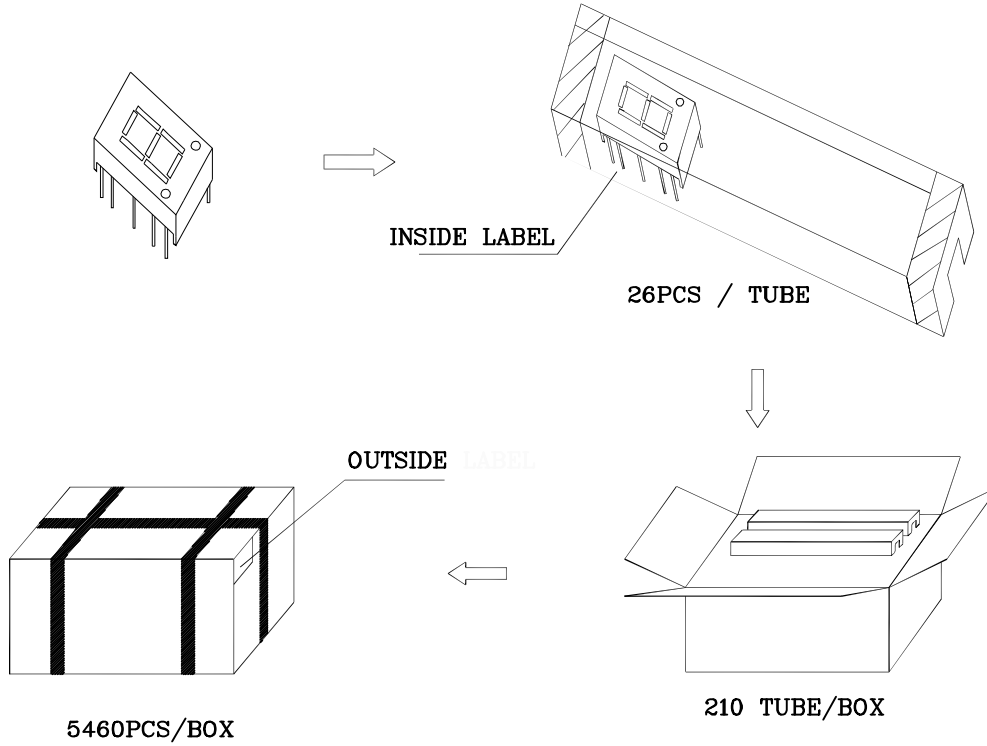
Remarks:

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:

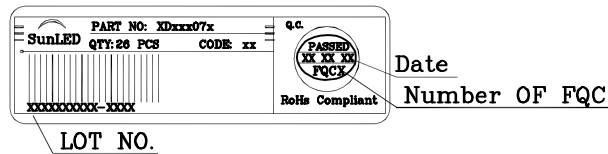
1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS



Inside Label On IC-tube



Outside Label On Box

