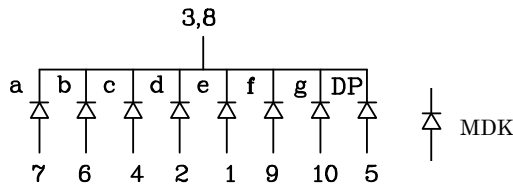
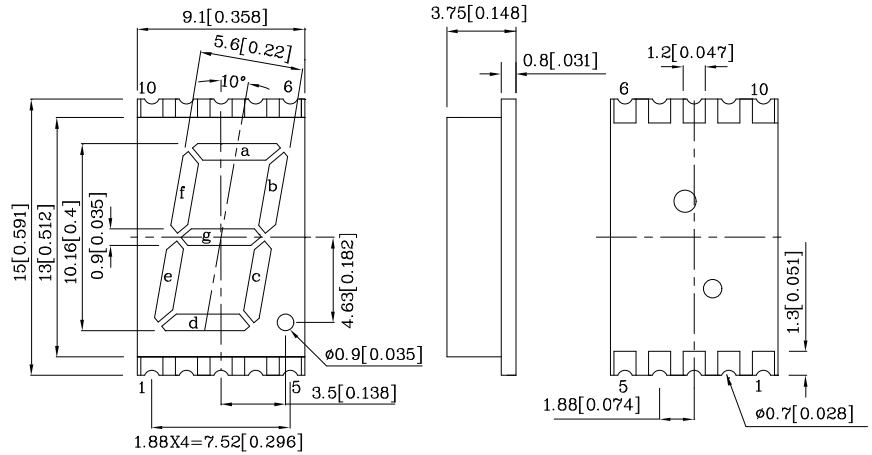


PRELIMINARY SPEC

**Features**

- 0.4INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- I.C. COMPATIBLE
- MECHANICALLY RUGGED.
- GRAY FACE, WHITE SEGMENT.
- PACKAGE : 400PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.



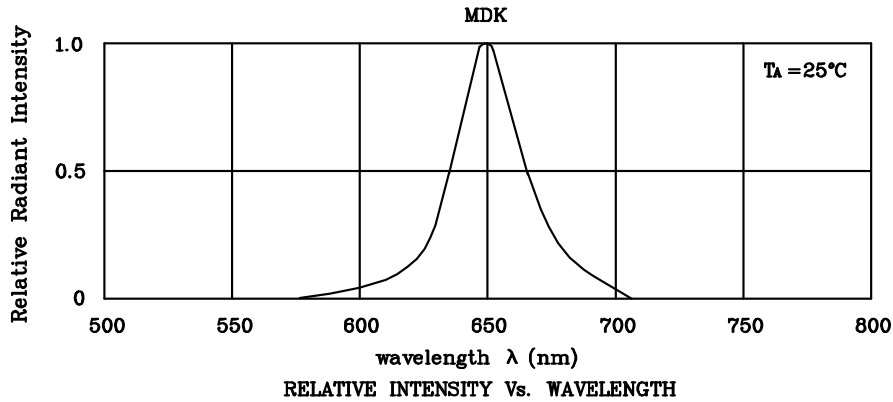
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
3. The gap between the reflector and PCB shall not exceed 0.25mm.
4. Specifications are subject to change without notice.

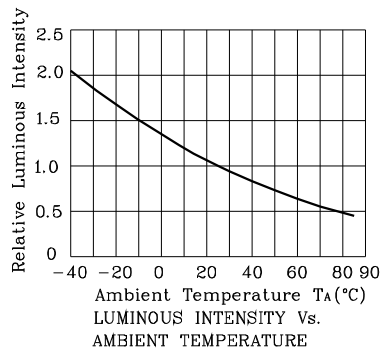
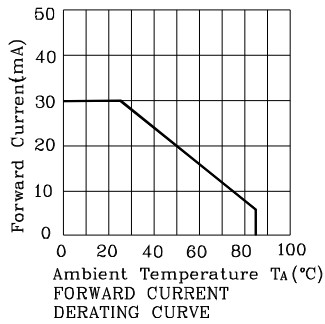
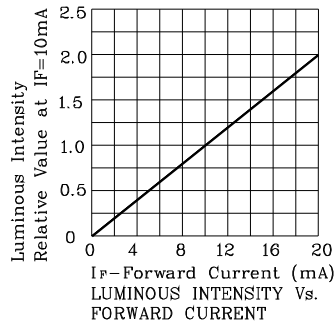
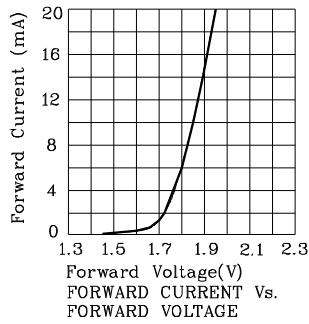
| Absolute Maximum Ratings<br>(TA=25°C)                          |                  | MDK<br>(InGaAlP) | Unit |
|--|------------------|------------------|------|
| Reverse Voltage  | V <sub>R</sub>   | 5                | V    |
| Forward Current  | I <sub>F</sub>   | 30               | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | i <sub>FS</sub>  | 185              | mA   |
| Power Dissipation  | P <sub>T</sub>   | 75               | mW   |
| Operating Temperature  | T <sub>A</sub>   | -40 ~ +85        | °C   |
| Storage Temperature  | T <sub>stg</sub> | -40 ~ +85        |      |

| Operating Characteristics<br>(TA=25°C)                                       |                 | MDK<br>(InGaAlP) | Unit |
|--|-----------------|------------------|------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =10mA)                             | V <sub>F</sub>  | 1.85             | V    |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =10mA)                             | V <sub>F</sub>  | 2.5              | V    |
| Reverse Current (Max.)<br>(V <sub>R</sub> =5V)                               | I <sub>R</sub>  | 10               | uA   |
| Wavelength Of Peak<br>Emission (Typ.)<br>(I <sub>F</sub> =10mA)              | $\lambda P$     | 650              | nm   |
| Wavelength Of Domi-<br>nant Emission (Typ.)<br>(I <sub>F</sub> =10mA)        | $\lambda D$     | 635              | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =10mA) | $\Delta\lambda$ | 28               | nm   |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | C               | 35               | pF   |

| Part Number | Emitting Color | Emitting Material | Luminous Intensity<br>(I <sub>F</sub> =10mA)<br>ucd | Wavelength<br>nm<br>$\lambda P$ | Description                      |
|-------------|----------------|-------------------|---|---------------------------------|----------------------------------|
| ZFMDK10C    | Red            | InGaAlP           | min. 8000<br>typ. 25990                             | 650                             | Common Cathode. Rt. Hand Decimal |



❖ MDK



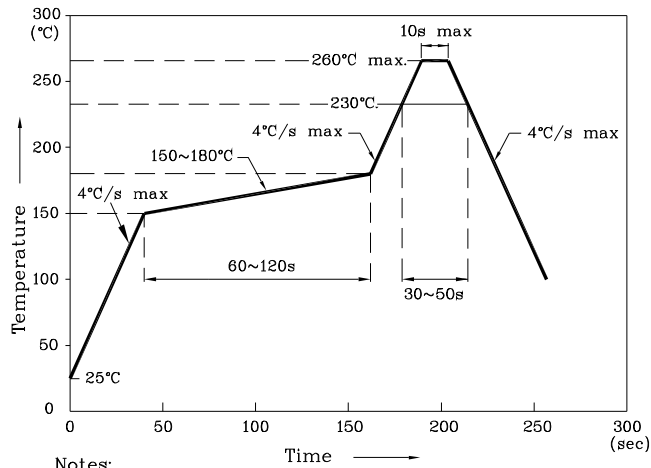
Remarks:

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.

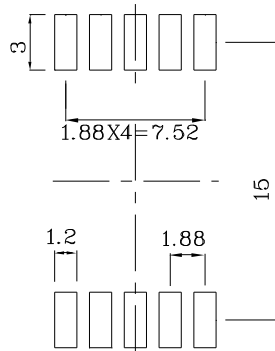
Reflow Soldering Profile For Lead-free SMT Process.



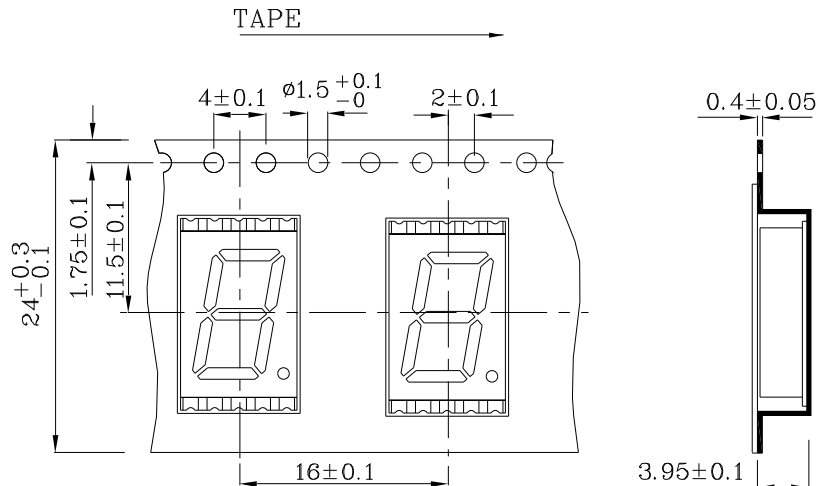
Notes:

1. Maximum soldering temperature should not exceed 260°C.
2. Recommended reflow temperature: 145°C-260°C.
3. Do not put stress to the epoxy resin during high temperatures conditions.

❖ Recommended Soldering Pattern (Units : mm;Tolerance:± 0.15)

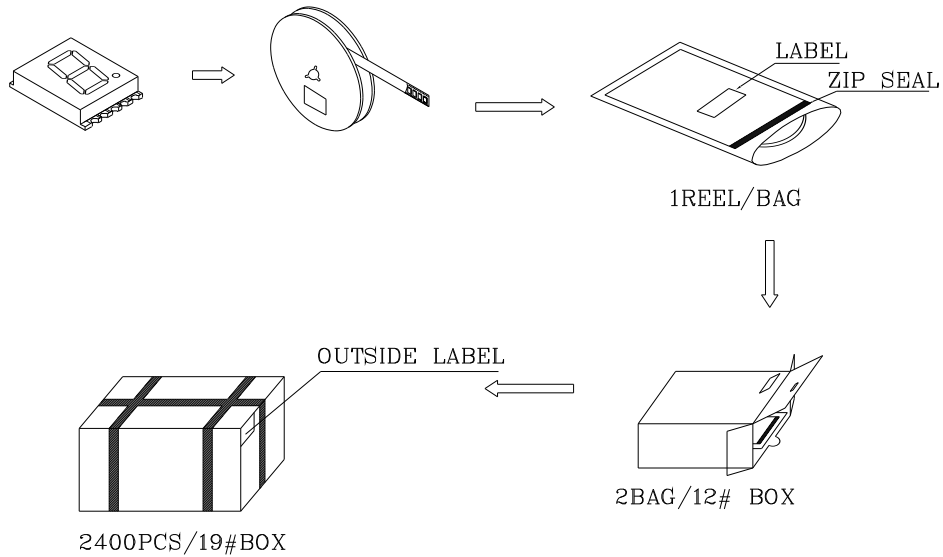


❖ Tape Specification (Units : mm)



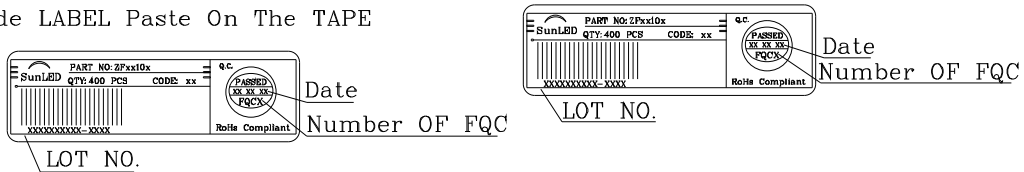
PACKING & LABEL SPECIFICATIONS

ZFMDK10C



Outside LABEL Paste On The BAG

Inside LABEL Paste On The TAPE



Outside LABEL Paste On The 19#Box

Outside LABEL Paste On The 12#Box

