



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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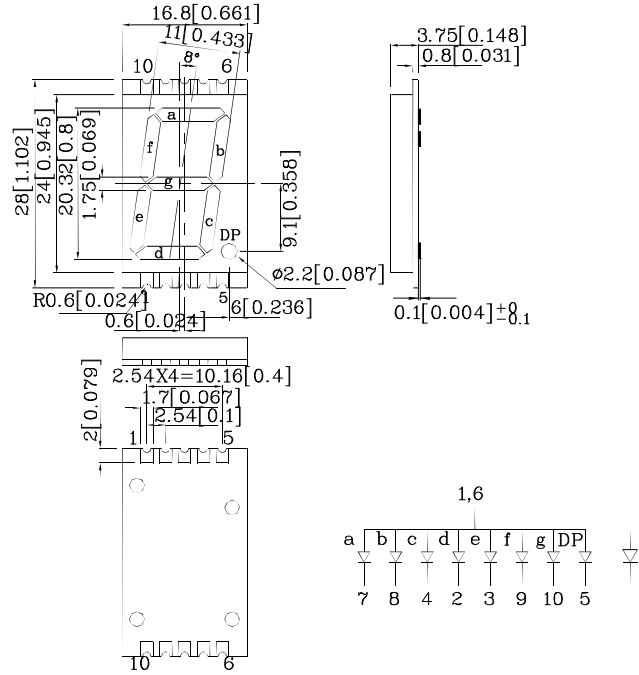
### Features

- 0.8 inch digit height
- Robust package
- Low power consumption
- Standard configuration: Gray face w/ white segments
- Standard Package: 200pcs/ Reel
- MSL (Moisture Sensitivity Level): 2a
- RoHS compliant



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

### 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.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

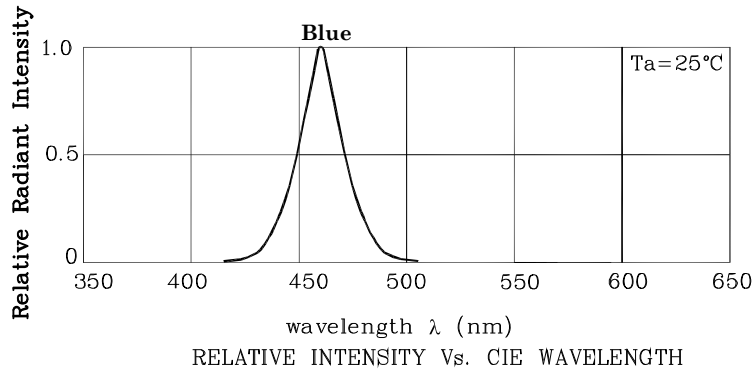
| Absolute Maximum Ratings<br>( $T_A=25^\circ\text{C}$ )         |           | Blue<br>(InGaN) | Unit |
|--|-----------|-----------------|------|
| Reverse Voltage  | $V_R$     | 5               | V    |
| Forward Current  | $I_F$     | 30              | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{FS}$  | 150             | mA   |
| Power Dissipation  | $P_D$     | 120             | mW   |
| Operating Temperature  | $T_A$     | -40 ~ +85       | °C   |
| Storage Temperature  | $T_{stg}$ | -40 ~ +85       |      |
| Electrostatic Discharge Threshold<br>(HBM)                     |           | 250             | V    |

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

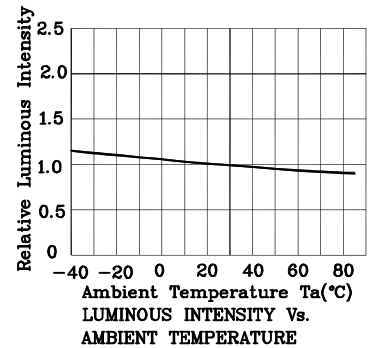
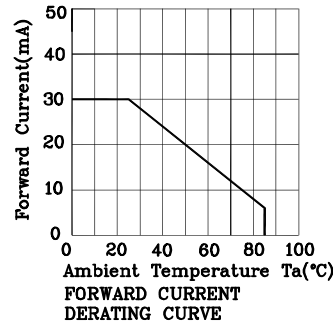
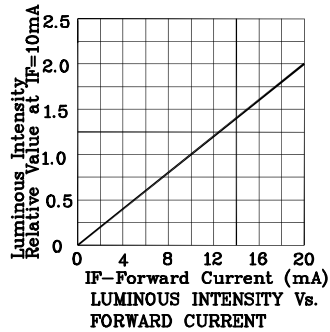
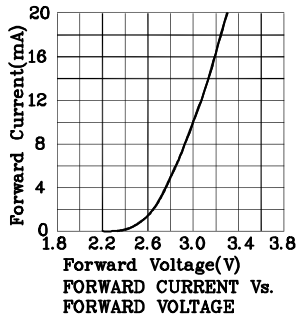
| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                         |                 | Blue<br>(InGaN) | Unit          |
|---|-----------------|-----------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=10\text{mA}$ )                                 | $V_F$           | 3               | V             |
| Forward Voltage (Max.)<br>( $I_F=10\text{mA}$ )                                 | $V_F$           | 4               | V             |
| Reverse Current (Max.)<br>( $V_R=5\text{V}$ )                                   | $I_R$           | 50              | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>( $I_F=10\text{mA}$ )     | $\lambda_P$     | 460*            | nm            |
| Wavelength of Dominant<br>Emission CIE127-2007* (Typ.)<br>( $I_F=10\text{mA}$ ) | $\lambda_D$     | 465*            | nm            |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>( $I_F=10\text{mA}$ )     | $\Delta\lambda$ | 25              | nm            |
| Capacitance (Typ.)<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                     | C               | 100             | pF            |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Luminous Intensity<br>CIE127-2007*<br>( $I_F=10\text{mA}$ ) ucd |       | Wavelength<br>CIE127-2007*<br>nm $\lambda_P$ | Description                        |
|----------------|-------------------|----------------------|---|-------|--|------------------------------------|
|                |                   |                      | min.  | typ.  |  |                                    |
| XZFCBD20A-A    | Blue              | InGaN                | 3600*   | 8690* | 460*   | Common Anode,<br>Rt. Hand Decimal. |

\*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ Blue



LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)

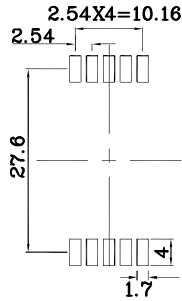


Notes:

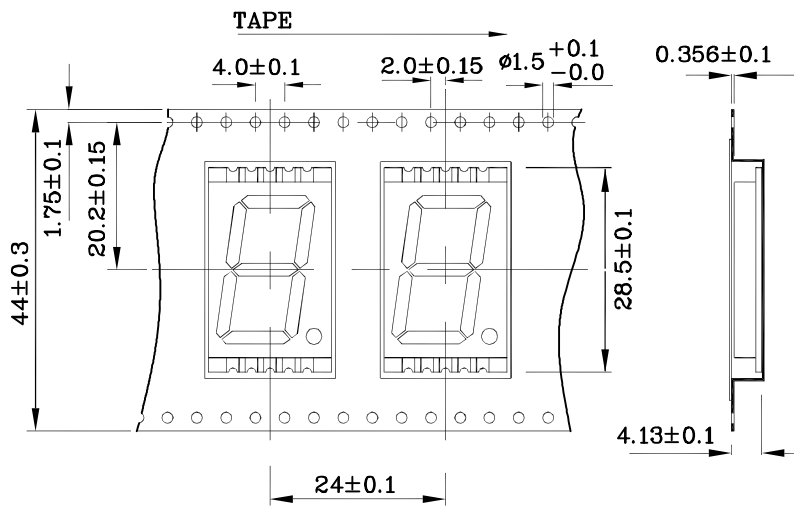
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C-260°C
3. Do not put stress to the epoxy resin during high temperatures conditions



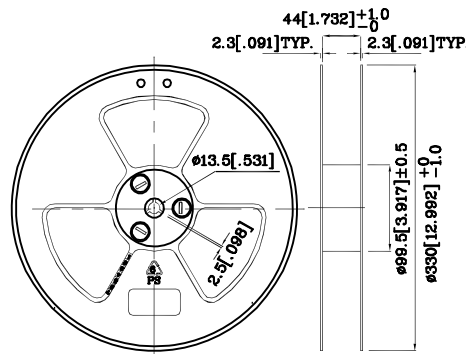
❖ Recommended Soldering Pattern (Units : mm; Tolerance:  $\pm 0.15$ )



❖ Tape Specification (Units : mm)



❖ Reel Dimension



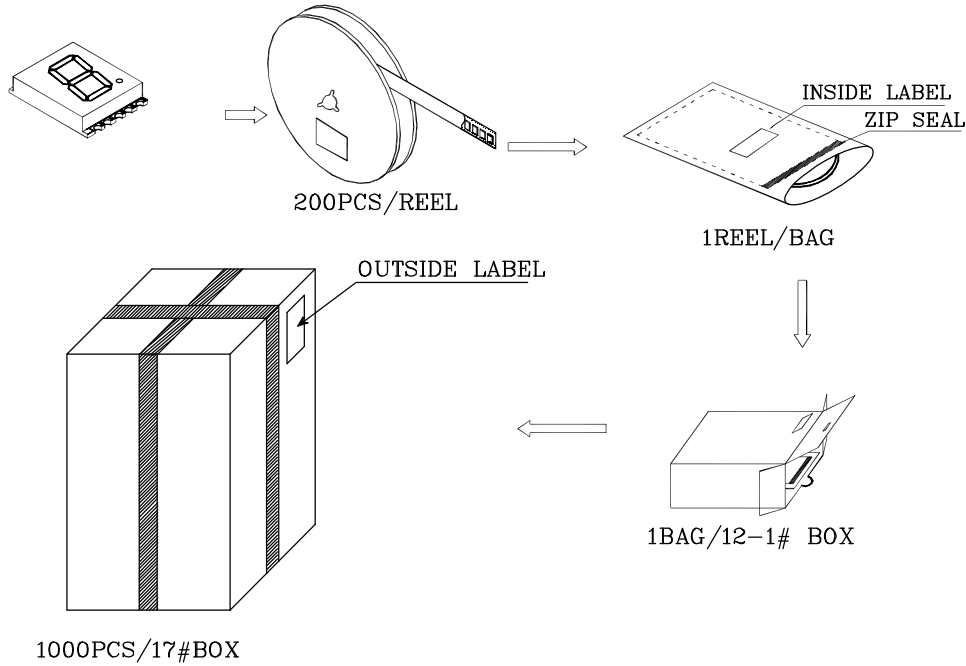
Remarks:

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:

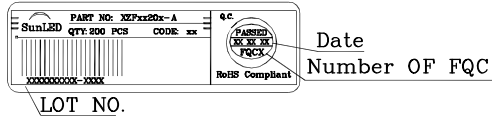
1. Wavelength:  $\pm 1$ nm
2. Luminous intensity / luminous flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1$ V

Note: Accuracy may depend on the sorting parameters.

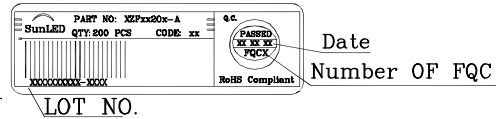
PACKING & LABEL SPECIFICATIONS



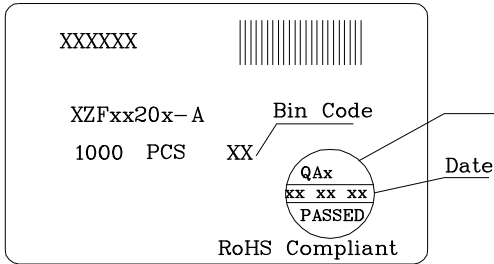
Inside Label On TAPE



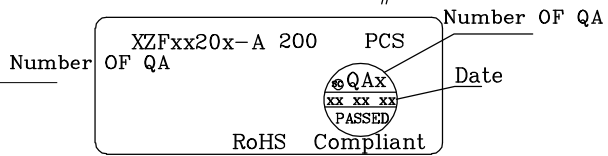
Outside Label On BAG



Outside Label On 19#Box



Outside Label On 12#Box



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