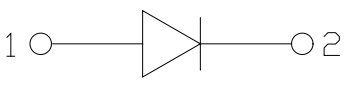
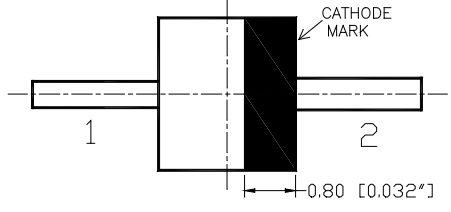
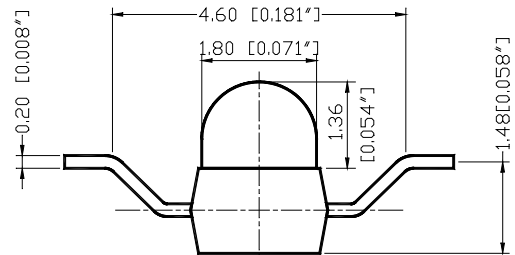
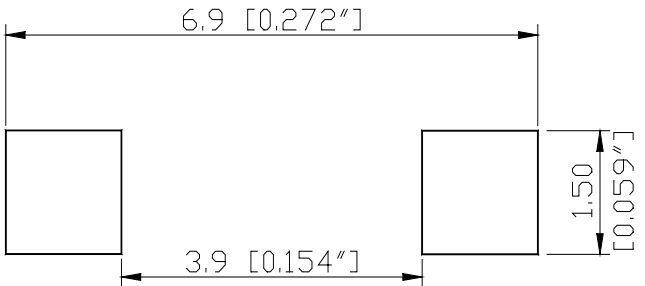
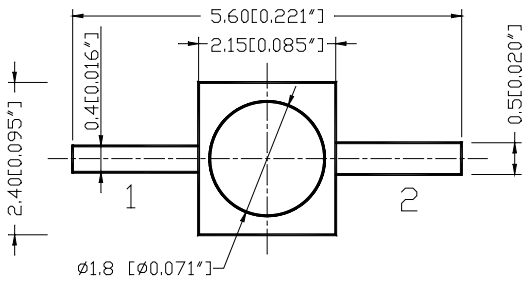


**SPECIFICATION** **CSM28GT2CZ**
**PACKAGE OUTLINES**


| ITEM          | MATERIALS         |
|---------------|-------------------|
| Resin (mold)  | Epoxy             |
| Lens color    | Water transparent |
| Dice          | InGaN             |
| Emitted color | Pure Green        |

- Notes:
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise noted.
  3. Specifications are subject to change without notice.

| Part Number | Chip Material | Color of Emission | Lens Type   | Viewing Angle |
|-------------|---------------|-------------------|-------------|---------------|
| CSM28GT2CZ  | InGaN         | Green             | Water Clear | 20°           |



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

| Parameter                                  | Symbol | Max Rating              | Unit |
|--|--------|-------------------------|------|
| Forward Current                            | IF     | 30                      | mA   |
| Reverse Current @ 5V                       | IR     | 10                      | μA   |
| Power Dissipation                          | Pd     | 111                     | mW   |
| Operating Temperature Range                | TOP    | -40~+85                 | °C   |
| Storage Temperature Range                  | TSTG   | -40~+85                 | °C   |
| Peak Pulsing Current (1/10 duty f = 10KHz) | IFP    | 125                     | mA   |
| Soldering Temperature                      | TSOL   | Max 260°C for 5 sec Max |      |

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

| Parameter               | Symbol | Test Condition | Value |      |     | Unit |
|-------------------------|--------|----------------|-------|------|-----|------|
|                         |        |                | Min   | Typ  | Max |      |
| Luminous Intensity      | Iv     | IF = 20mA      | -     | 8300 | -   | mcd  |
| Forward Voltage         | VF     | IF = 20mA      | 2.8   | 3.2  | -   | V    |
| Reverse Leakage Current | IR     | VR = 5V        | -     | -    | 10  | μA   |
| Viewing Angle at 50% Iv | 2θ1/2  | IF = 20mA      | -     | 20   | -   | Deg  |
| Peak Wavelength         | λP     | IF = 20mA      | -     | 520  | -   | nm   |
| Dominant Wavelength     | λD     | IF = 20mA      | 520   | 525  | 530 | nm   |

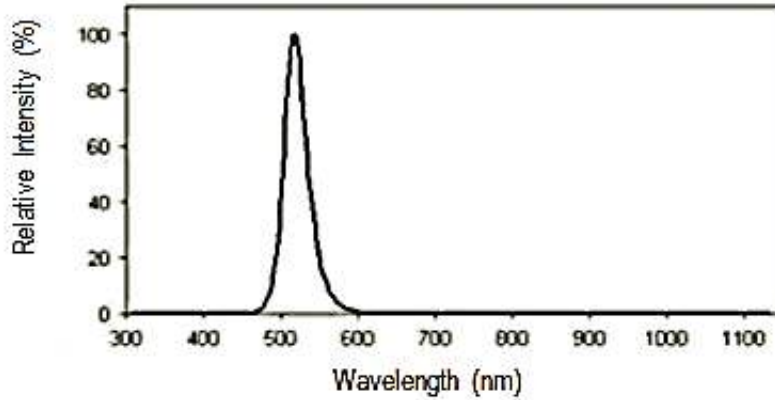
\*Tolerance of viewing angle: -10 / +5 deg.



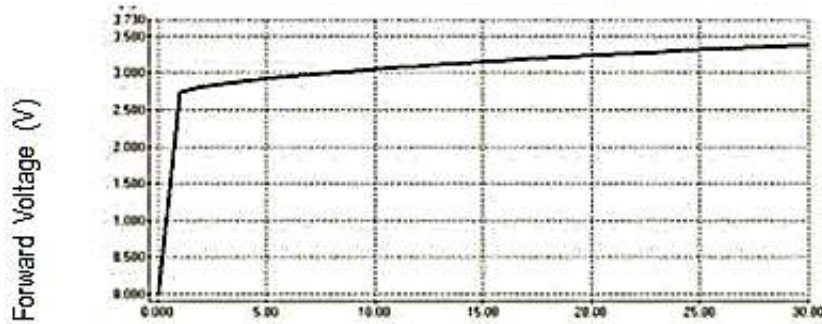
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OPTICAL CHARACTERISTIC CURVES

Relative Intensity vs. Wavelength

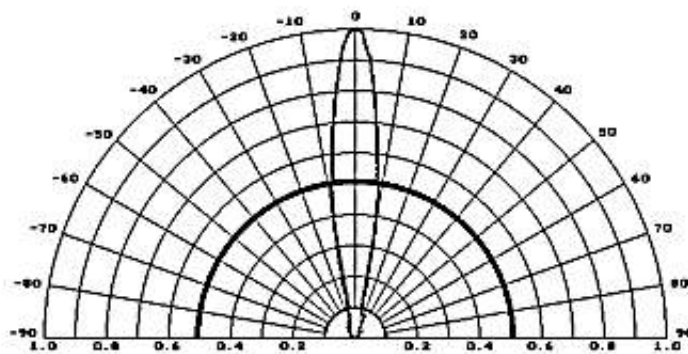


Forward Current vs. Forward Voltage



Forward Current (mA)

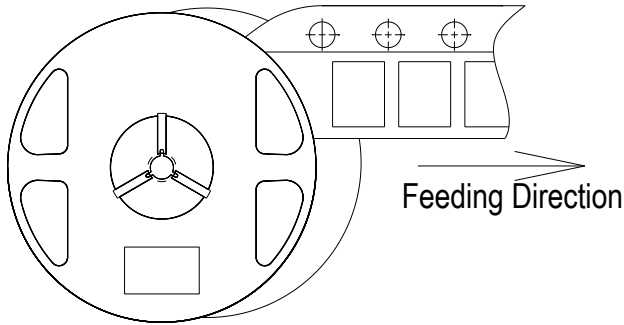
Directive Characteristics



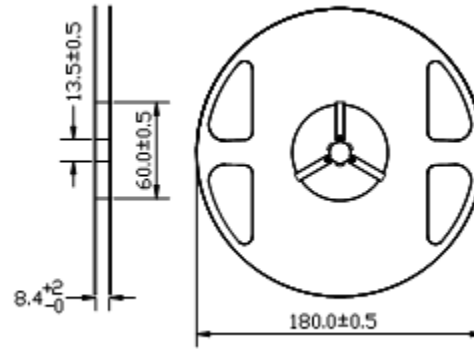
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## PACKAGING SPECIFICATION

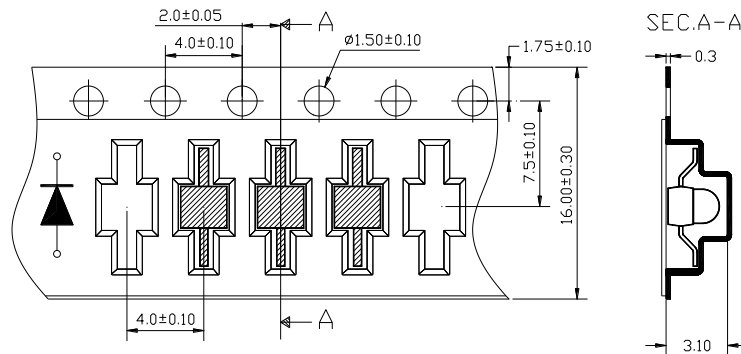
### ● Feeding Direction



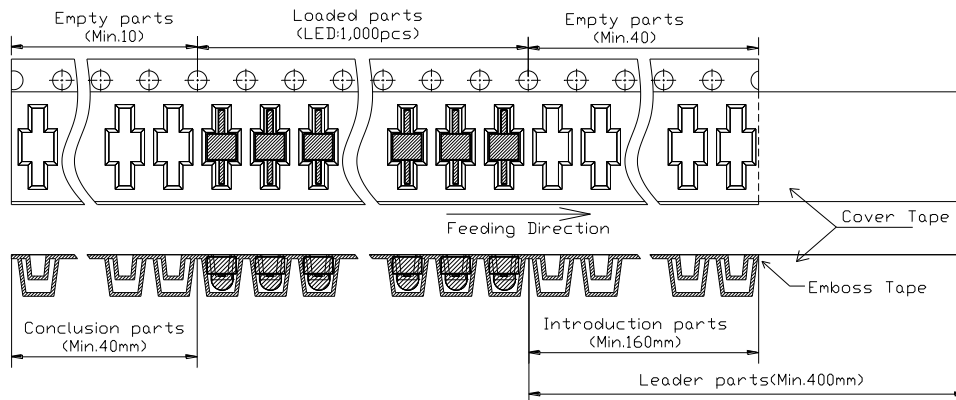
### ● Dimensions of Reel (Unit: mm)



### ● Dimensions of Tape (Unit: mm)



### ● Arrangement of Tape



#### Notes:

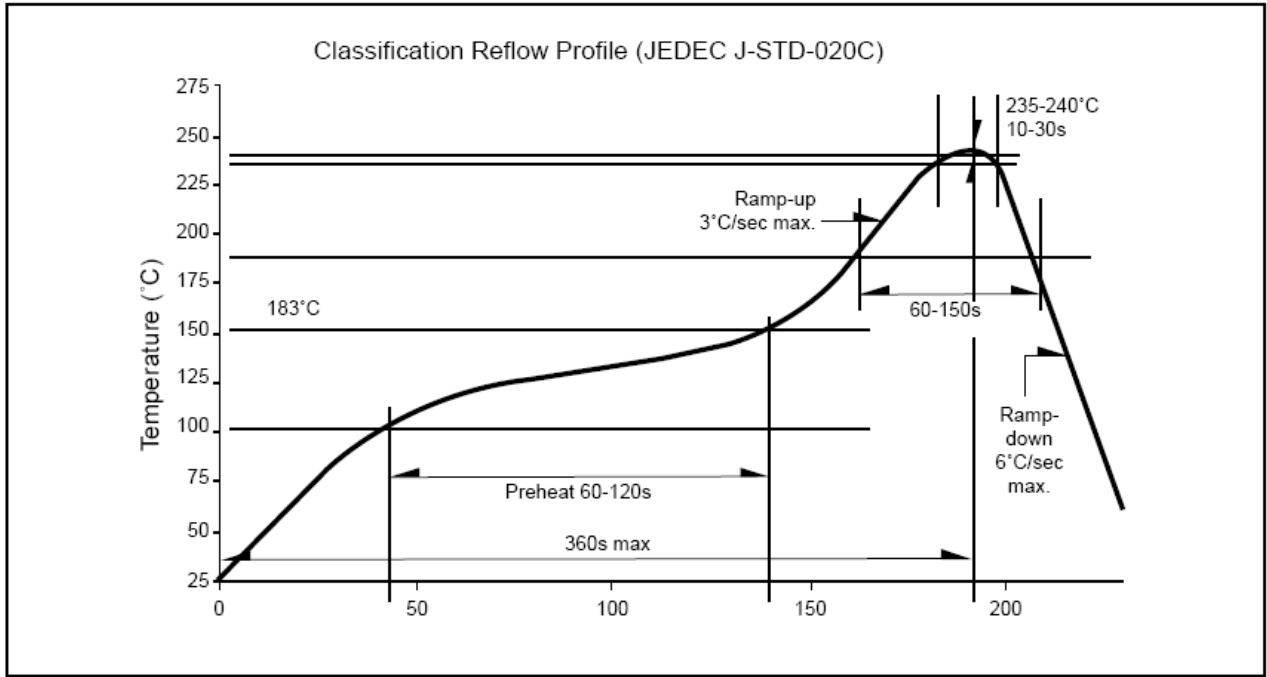
1. Empty component pockets are sealed with top cover tape
2. The Maximum number of missing lamps is two
3. The cathode is oriented towards the tape sprocket hole.
4. 1000 pc/reel



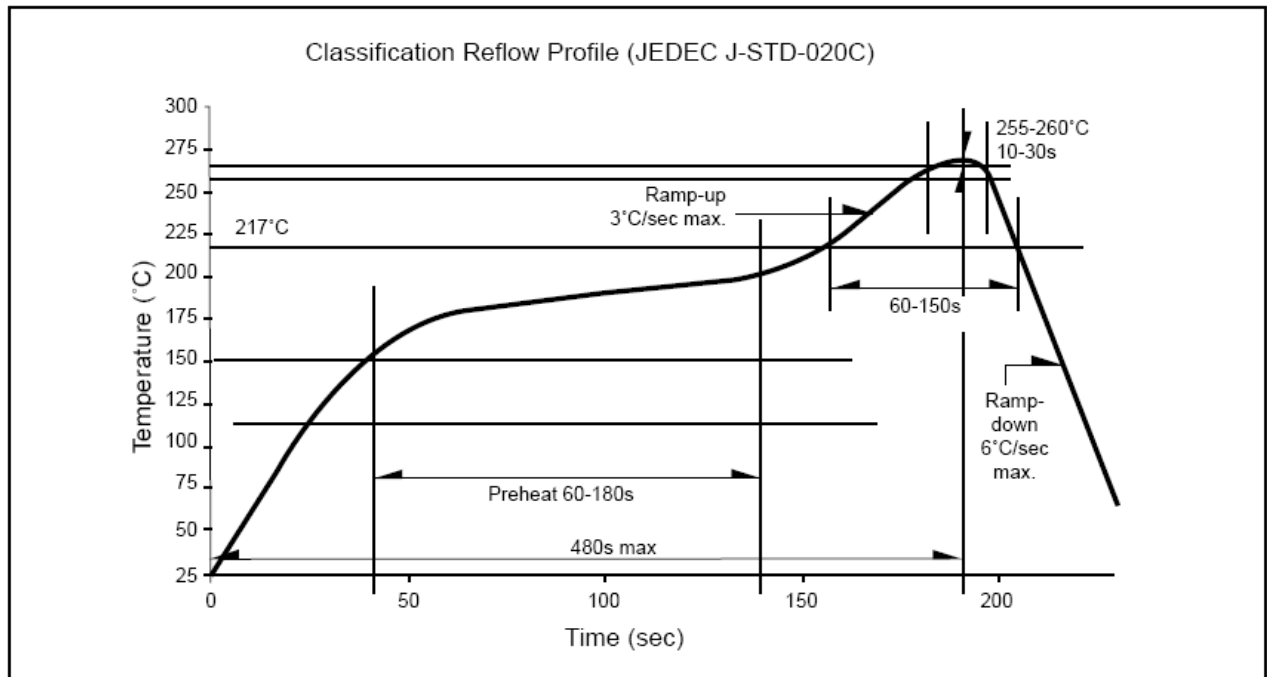
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# SOLDERING CONDITIONS

## RECOMMENDED Sn-PB IR-Reflow Soldering Profile



## RECOMMENDED Pb-Free Soldering Profile



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