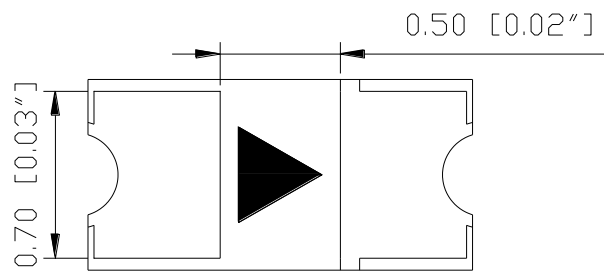
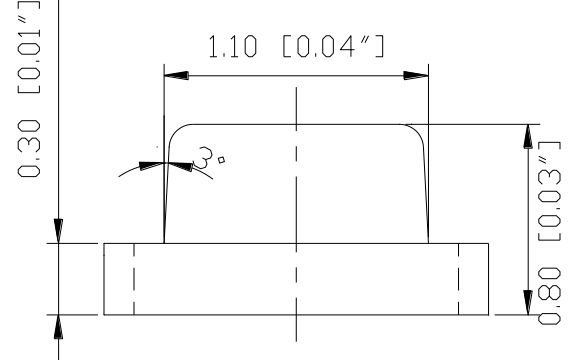
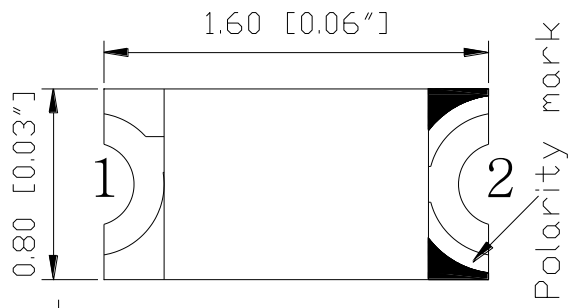
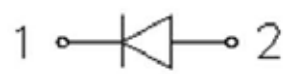
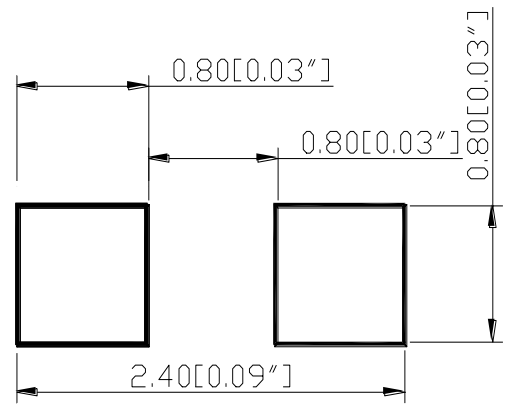


SPECIFICATION **CS63BDR3C**
PACKAGE OUTLINES

RECOMMENDED PAD LAYOUT


- 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 |
|-------------|---------------|-------------------|-------------|---------------|
| CS63BDR3C | InGaAlP | Red | Water Clear | 140° |



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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 | 75 | mW |
| Operating Temperature Range | TOP | -40~+80 | °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 10 sec Max | |

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

| Parameter | Symbol | Test Condition | Value | | | Unit |
|-------------------------|--------|----------------|-------|-----|-----|------|
| | | | Min | Typ | Max | |
| Luminous Intensity | Iv | IF = 20mA | 160 | 230 | - | mcd |
| Forward Voltage | VF | IF = 20mA | - | 2.0 | 2.5 | V |
| Reverse Leakage Current | IR | VR = 5V | - | 10 | - | μA |
| Viewing Angle at 50% Iv | 2θ1/2 | IF = 10mA | - | 140 | - | Deg |
| Peak Wavelength | λP | IF = 20mA | - | 655 | - | nm |
| Dominant Wavelength | λD | IF = 20mA | 630 | 640 | 650 | nm |

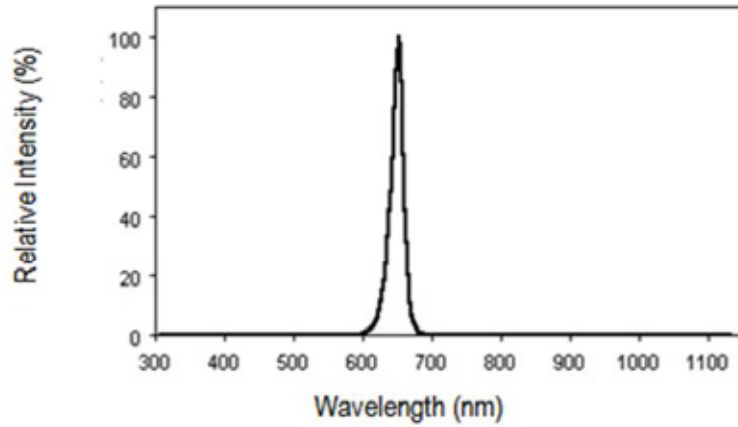
*Tolerance of viewing angle: -10 / +5 deg.



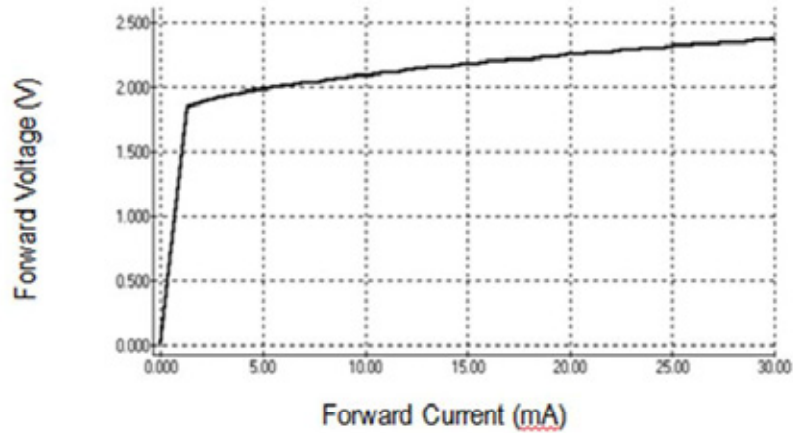
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OPTICAL CHARACTERISTIC CURVES

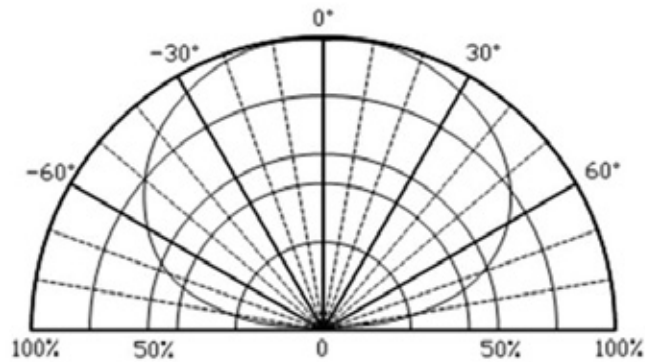
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



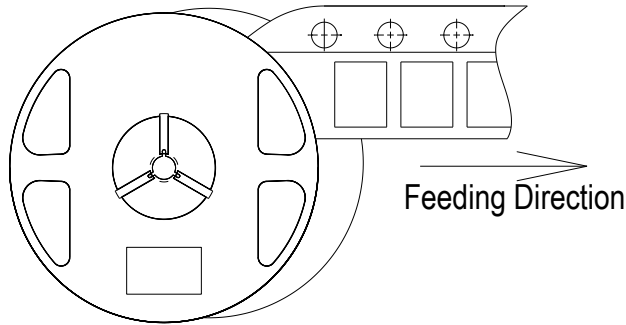
Directive Characteristics



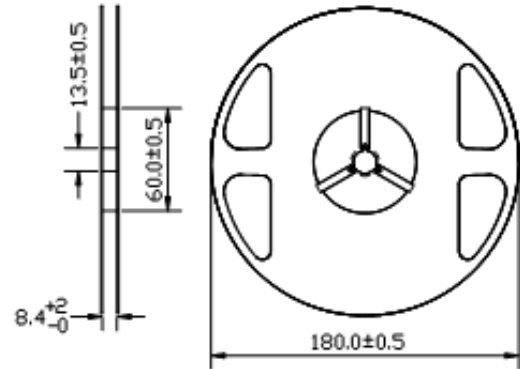
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PACKAGING SPECIFICATION

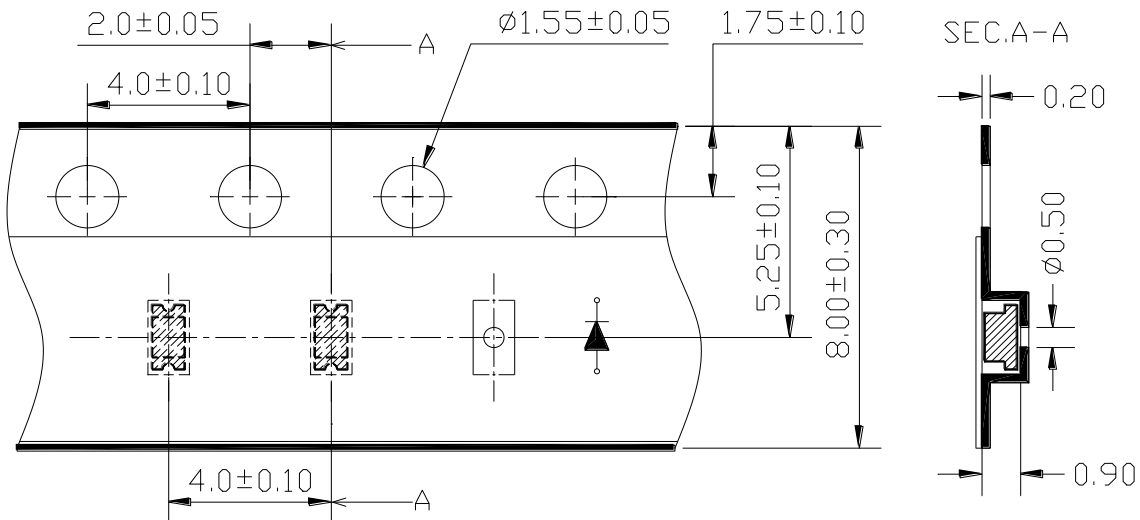
- Feeding Direction**



- Dimensions of Reel (Unit: mm)**



- Dimensions of Tape (Unit: mm)**

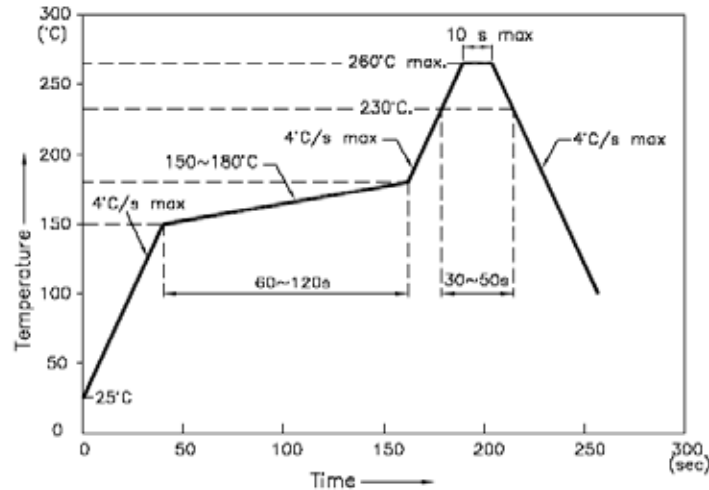

Notes:

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. 4,000pcs/Reel



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SOLDERING CONDITIONS

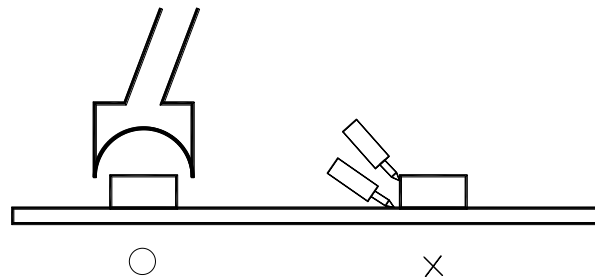


NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.
 - Soldering iron
 - Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should be shorter
 - $(+10^{\circ}\text{C} \rightarrow -1\text{sec})$. Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230°C .

Rework

1. Customer must finish rework within 5 sec under 260°C .
2. The head of iron cannot touch copper foil
3. Twin-head type is preferred.



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