

### FEATURES

- 650nm Peak Wavelength
- Point Source
- Long Life
- RoHS Compliant
- High Reliability

### DESCRIPTION

The LP-0650-011 Series are point source LEDs with peak wavelength of 650nm. Available in a TO-46 flat window cap. These red LED point sources emit at a wavelength of 650 nm and are optimized for energy efficiency. Depending on the point diameter, visible emission of red light is reached with a driving current of 400 nA. This guarantees extremely long battery life.

### APPLICATIONS

- Encoders
- Line Sensing
- Edge Sensing
- Instrumentation
- Linear Positioning
- Short Haul Fiber
- Optical Switches
- Machine Vision
- Medical Sensing
- Distance and Range Finding

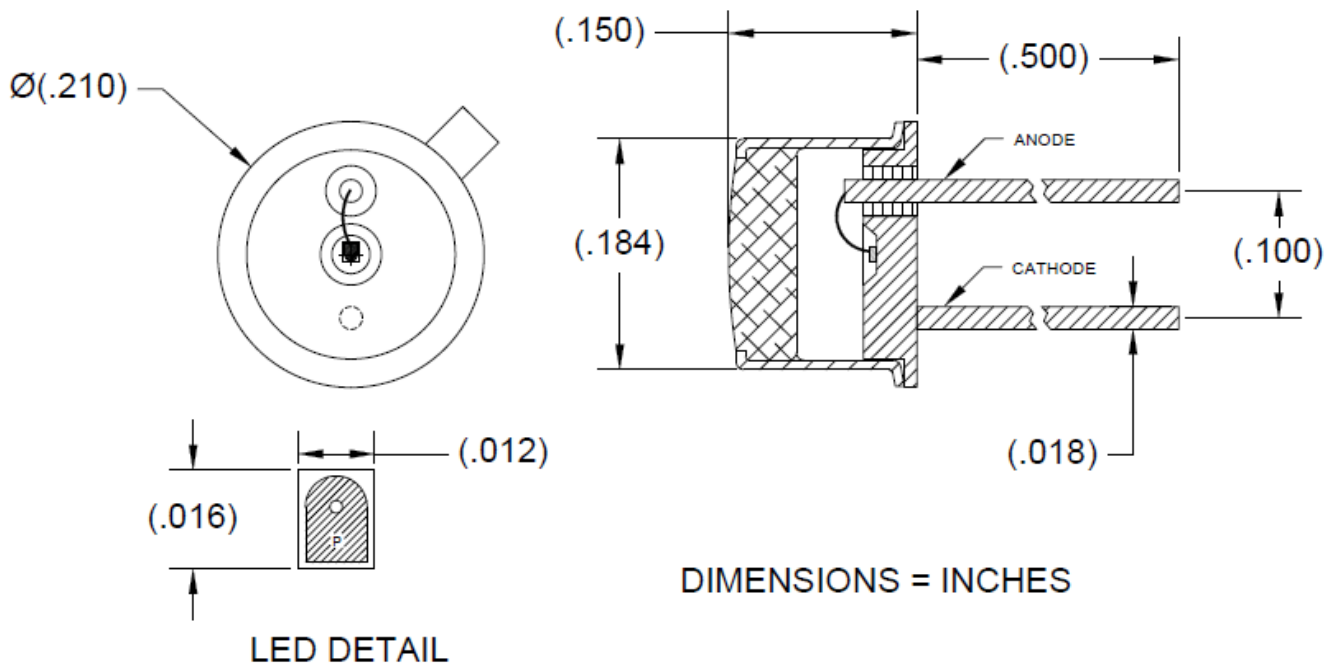
#### > Absolute Maximum Ratings

| Part No.    | Forward DC Current [mA] | Reverse Voltage [V] | Operating Temperature [C] | Storage Temperature [C] | Package    |
|-------------|-------------------------|---------------------|---------------------------|-------------------------|------------|
| LP-0650-011 | 20                      | 5                   | -40 to +100               | -40 to +125             | Window Cap |

#### > Electrical and Optical Characteristics

| Typical Characteristics (T=23°C unless specified) |                       |                 |      |         |     |               |
|---------------------------------------------------|-----------------------|-----------------|------|---------|-----|---------------|
| Parameter                                         | Test Conditions       | Symbol          | Min  | Typical | Max | Unit          |
| Forward Voltage                                   | $I_f = 5 \text{ mA}$  | $V_F$           | -    | 2.0     | 2.3 | V             |
| Reverse Current                                   | $V_R = 5 \text{ V}$   | $I_R$           | -    | -       | 100 | $\mu\text{A}$ |
| Peak Wavelength                                   | $I_f = 5 \text{ mA}$  | $\lambda_p$     | 640  | 650     | 660 | nm            |
| Spectral Halfwidth                                | $I_f = 5 \text{ mA}$  | $\Delta\lambda$ | -    | 20      | -   | nm            |
| Luminous Intensity                                | $I_f = 5 \text{ mA}$  | $I_v$           | -    | 3.5     | -   | mcd           |
|                                                   | $I_f = 10 \text{ mA}$ |                 | 6.5  |         |     |               |
| Radiant Power                                     | $I_f = 20 \text{ mA}$ | $\Phi_e$        | 0.35 | 0.5     | -   | mW            |

> TO-46 Window Cap [LP-0650-011]



>Soldering Conditions: 260°C 1/16 inch away from case for 3 seconds max.

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## MATERIALS SAFETY

This product is free of conflict minerals and meets REACH compliance. Please see website for reports.