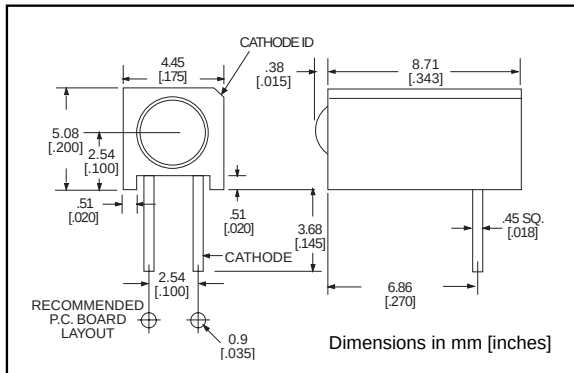


3mm

# LED CBI® Circuit Board Indicator For Backlighting

**Dialight**

551-xx02



Standard Polarity shown in drawing: Cathode right

## Features

- Multiple CBIs form horizontal LED arrays on 4.45mm (0.175") center-lines
- Extended housing and narrow viewing angle LEDs reduce light bleed
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 31.5%
- Polymer content: PBT, 2.242 g
- Housing stand-offs facilitate PCB cleaning
- Solderability per MIL-STD-202F, method 208F
- LEDs are safe for direct viewing per IEC 825-1, EN-60825-1
- Compatible with:
  - 553-22xx-100 Bi-Level
  - 564-2210-xxx Tri-Level
  - 568-221x-xxx Quad-Level

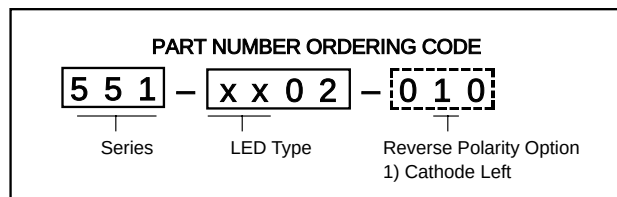
## Tolerance note: As noted, otherwise:

- LED Protrusion:  $\pm 0.04$  mm [ $\pm 0.016$ ]
- CBI Housing:  $\pm 0.02$ mm [ $\pm 0.008$ ]

**PART NO.**  
**HIGH EFFICIENCY, TINTED,**  
**NON DIFFUSED**  
551-1502  
551-1602  
551-1702

**COLOR**  
  
Green  
Yellow  
Red

To order any of the 551-xx02 part numbers with Reverse Polarity (Cathode Left), please add -010 to the part numbers shown above.



-010 Ordering Code Suffix required ONLY  
for Reverse Polarity Option

## Typical Operating Characteristics @ TA=25°C

See LED data sheet for additional information

See page 4-70 and 4-71 for Reference Only LED Drive Circuit Examples. See page 4-72 for Pin Out

| Part Number | Color  | Peak Wavelength nm | Iv mcd | Vf Volts* | Test Current (mA) | Viewing Angle 2 $\theta_{\%}$ | LED Data sheet | Page # |
|-------------|--------|--------------------|--------|-----------|-------------------|-------------------------------|----------------|--------|
| 551-1502    | Green  | 565                | 50     | 2.1       | 10                | 45°                           | 521-9430       | 4-61   |
| 551-1602    | Yellow | 585                | 20     | 2.1       | 10                | 45°                           | 521-9431       | 4-61   |
| 551-1702    | Red    | 635                | 29     | 2         | 10                | 45°                           | 521-9432       | 4-61   |

\* I<sub>F</sub> = 20mA

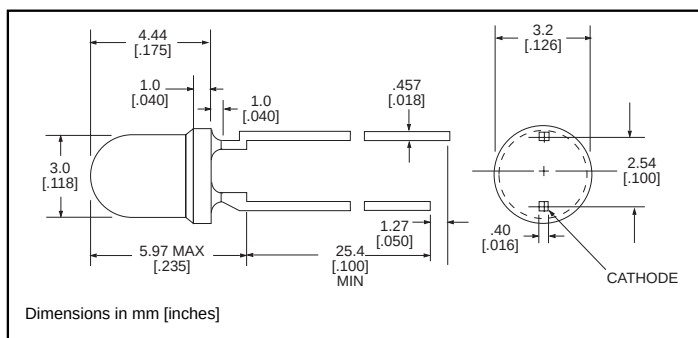
# 3mm Discrete LED

## High Efficiency

## Tinted, Non-Diffused

# Dialight

## 521-9430, -9431, -9432



### PART NO.

521-9430  
521-9431  
521-9432

### COLOR

Green  
Yellow  
Red

**MOUNTING CLIP: 515-0006**  
located on page 4-65

4

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

|                                          | Green<br>-9430                     | Yellow<br>-9431 | Red<br>-9432 |
|------------------------------------------|------------------------------------|-----------------|--------------|
| Power Dissipation (mW)                   | 100                                | 60              | 100          |
| Forward Current (mA)                     | 30                                 | 20              | 30           |
| Derating (mA/°C) From 50°C               | .4                                 | .25             | .4           |
| Peak Current (mA)<br>Pulse width = 100μs | 120                                | 80              | 120          |
| Operating Temperature (°C)               | -55/+100                           | -55/+100        | -55/+100     |
| Storage Temperature (°C)                 | -55/+100                           | -55/+100        | -55/+100     |
| Soldering Temperature                    | 260°C, 5 seconds, 1.6 mm from case |                 |              |

Solder Adherence per MIL-STD-202E, Method 208C

### OPERATING CHARACTERISTICS (T<sub>A</sub>=25°C)

|                                    |         | Green<br>-9430 | Yellow<br>-9431 | Red<br>-9432 |
|------------------------------------|---------|----------------|-----------------|--------------|
| Luminous Intensity (mcd)           | Min.    | 32             | 10              | 8.7          |
| I <sub>F</sub> =10mA               | Typical | 50             | 20              | 29           |
| Peak Wavelength (nm)               | Typical | 565            | 585             | 635          |
| λ Peak                             |         |                |                 |              |
| Viewing Angle (2θ <sub>1/2</sub> ) | Typical | 45°            | 45°             | 45°          |
| Forward Voltage (V)                | Typical | 2.1            | 2.1             | 2            |
| I <sub>F</sub> =20mA               | Max.    | 2.8            | 2.8             | 2.8          |

θ<sub>1/2</sub> is the off axis angle at which the luminous intensity is half the axial luminous intensity