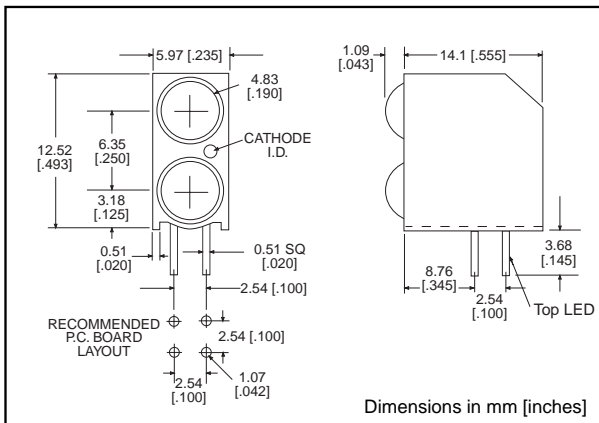


# 5mm 5V LED CBI® Circuit Board Indicator Bi-Level For Backlighting



## 552-22xx-100



Standard Polarity shown in drawing: Cathode right

**PART NO.**  
HIGH EFFICIENCY, TINTED,  
NON DIFFUSED  
552-2211-100  
552-2222-100  
552-2223-100  
552-2232-100  
552-2233-100

**COLOR\***

Red-Red  
Green-Green  
Green-Yellow  
Yellow-Green  
Yellow-Yellow

\* Top-Bottom LED

Reverse Polarity (Cathode Left) option available.  
See Part Number Ordering Code.

### Features

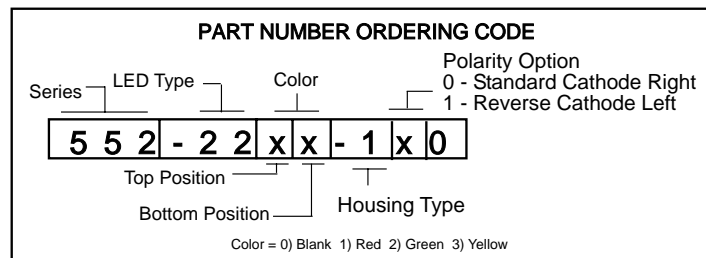
- Multiple CBIs form horizontal LED arrays on 6.35mm (0.250") center-lines.
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 32%
- Polymer content: PBT, 0.845 g
- Housing stand-offs facilitate PCB cleaning
- Solderability per MIL-STD-202F, method 208F
- LEDs are safe for direct viewing per IEC 825-1, EN-60825-1

### Tolerance note: As noted, otherwise:

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

### Custom Combinations

- Contact factory for information on custom color combinations and ganged arrays



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### Typical Operating Characteristics ( $T_A=25^\circ C$ )

See LED data sheet for additional information  
See page 6-55 and 6-56 for Reference Only LED Drive Circuit Examples. See page 6-58 for Pin Out

| Color  | Peak Wavelength nm | I <sub>v</sub> mcd | V <sub>F</sub> Volts | Test Current (mA) | Viewing Angle 2 $\theta_{\%}$ | LED Data sheet | Page # |
|--------|--------------------|--------------------|----------------------|-------------------|-------------------------------|----------------|--------|
| Red    | 650                | 110                | 2.1                  | 20                | 30°                           | 5HN-9419       | 6-50   |
| Green  | 565                | 110                | 2.2                  | 20                | 30°                           | 5HN-9420       | 6-50   |
| Yellow | 585                | 110                | 2.2                  | 20                | 30°                           | 5HN-9421       | 6-50   |

5mm  
High Efficiency  
Tinted, Non-Diffused

**Dialight**

5HN-xxxx

**\* NOT A VALID PART  
NUMBER. THIS SHEET IS FOR  
REFERENCE ONLY.**

| <u>TYPE</u> | <u>COLOR</u> |
|-------------|--------------|
| *5HN-9419   | Red          |
| *5HN-9420   | Green        |
| *5HN-9421   | Yellow       |

| <b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A=25^\circ\text{C}$ ) | Red<br><b>-9419</b>                                | Green<br><b>-9420</b> | Yellow<br><b>-9421</b> |
|--|--|-----------------------|------------------------|
| Power Dissipation (mW)                                     | 75   | 75                    | 75                     |
| Derating (mW/ $^\circ\text{C}$ ) From 50°                  | 1.5  | 1.5                   | 1.5                    |
| Forward Current (mA)                                       | 25   | 25                    | 25                     |
| Peak Current (mA)<br>Pulse Width = 1 $\mu\text{s}$         | 60   | 60                    | 60                     |
| Operating Temperature ( $^\circ\text{C}$ )                 | -55/+100   | -55/+100              | -55/+100               |
| Storage Temperature ( $^\circ\text{C}$ )                   | -55/+100   | -55/+100              | -55/+100               |
| Soldering Temperature                                      | 260 $^\circ\text{C}$ , 5 seconds, 1.6 mm from case |                       |                        |

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

| <b>OPERATING CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ ) |         | Red<br><b>-9419</b> | Green<br><b>-9420</b> | Yellow<br><b>-9421</b> |
|---|---------|---------------------|-----------------------|------------------------|
| Luminous Intensity (mcd)                                    | Min.    | 56                  | 56                    | 56                     |
|   | Typical | 110                 | 110                   | 110                    |
| $I_F=20\text{mA}$   |         |                     |                       |                        |
| Peak Wavelength (nm)  | Typical | 650                 | 565                   | 565                    |
| $\lambda_{\text{Peak}}$                                     |         |                     |                       |                        |
| Viewing Angle ( $2\theta$ °)                                |         | 30°                 | 30°                   | 30°                    |
| Forward Voltage (V)<br>$I_F=20\text{mA}$                    | Typical | 2.1                 | 2.2                   | 2.2                    |
|   | Max     | 2.55                | 2.55                  | 2.55                   |
| Reverse Voltage (V), $I_R=100\mu\text{A}$                   | Min.    | 5                   | 5                     | 5                      |

$\theta$  is the off axis angle at which the luminous intensity is half the axial luminous intensity