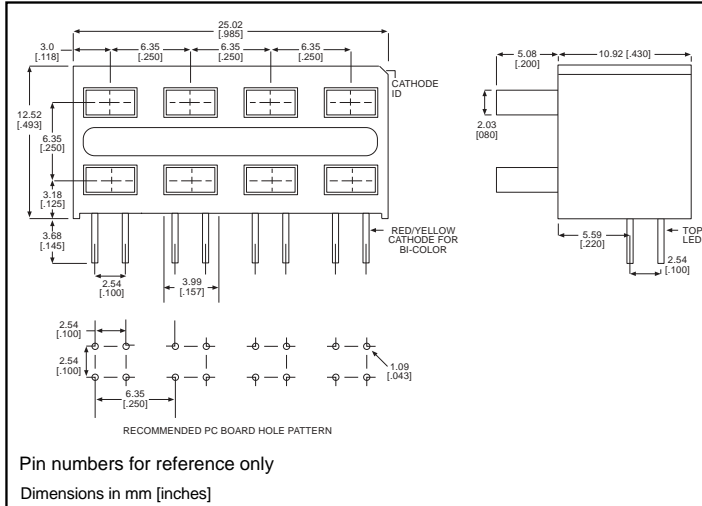


# 2mm x 4mm Rectangular LED CBI® Circuit Board Indicator Quad Bi-Level Array



## 567-0xxx-004



### PART NO.

- 567-0111-004
- 567-0122-004
- 567-0123-004
- 567-0132-004
- 567-0133-004

### COLOR\*

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

### BI-COLOR

- 567-0711-004
- 567-0744-004

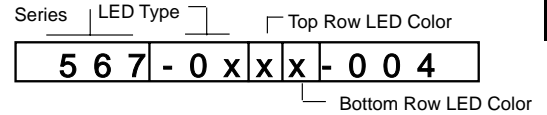
- Red/Green-Red/Green
- Yellow/Green-Yellow/Green

\*Top-Bottom row of LEDs

### 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, 3.116 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
- Complements 567-0xxx

### EXAMPLE OF PART NUMBER ORDERING CODE



LED colors: 0) Blank 1) Red or Red/Green Bi-Color 2) Green 3) Yellow 4) Yellow/Green Bi-Color

### Tolerance note: As noted, otherwise:

- LED Protrusion: ±0.04 mm [±0.016]
- CBI Housing: ±0.02mm[±0.008]

### Custom Combination

- Contact factory for information on custom color combinations

### Typical Operating Characteristics (T<sub>A</sub>=25°C)

See LED data sheet for additional information

See Page 5-20 and 5-21 for Reference Only LED Drive Circuit Example

See Page 5-22 for Pin Out

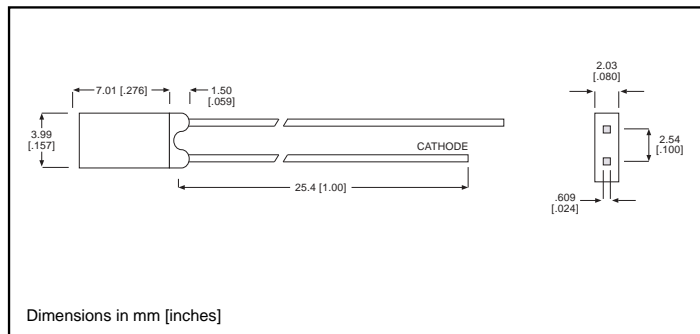
| Color        | Peak Wavelength nm | I <sub>v</sub> mcd | V <sub>F</sub> Volts | Test Current (mA) | Viewing Angle 2θ% | LED Data sheet | Page # |
|--------------|--------------------|--------------------|----------------------|-------------------|-------------------|----------------|--------|
| Green        | 565                | 3.7                | 2.1*                 | 10                | 104°              | 521-9606       | 5-14   |
| Yellow       | 585                | 3.7                | 2.1*                 | 10                | 104°              | 521-9607       | 5-14   |
| Red          | 635                | 3.7                | 2.1*                 | 10                | 104°              | 521-9658       | 5-14   |
| Yellow/Green | 585/565            | 2.5/3.7            | 2.1/2.1              | 20                | 140°              | 521-9640       | 5-15   |
| Red/Green    | 630/565            | 5.6/5.6            | 2/2.1                | 20                | 140°              | 521-9743       | 5-15   |

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

**2mm x 4mm Discrete LED**  
**Rectangular**  
**Tinted**

**Dialight**

**521-9606, -9607, -9658**



**PART NO.**

**COLOR**

521-9606  
 521-9607  
 521-9658

Green  
 Yellow  
 Red

| <b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A=25^\circ\text{C}$ ) | Green<br><b>-9606</b>                              | Yellow<br><b>-9607</b> | Red<br><b>-9658</b> |
|--|--|------------------------|---------------------|
| Power Dissipation (mW)                                     | 100  | 60                     | 100                 |
| Forward Current (mA)                                       | 30   | 20                     | 30                  |
| Derating (mA/ $^\circ\text{C}$ ) From 50 $^\circ\text{C}$  | .4   | .25                    | .4                  |
| Peak Current (mA)<br>Pulse width = 100 $\mu\text{s}$       | 120  | 80                     | 120                 |
| 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

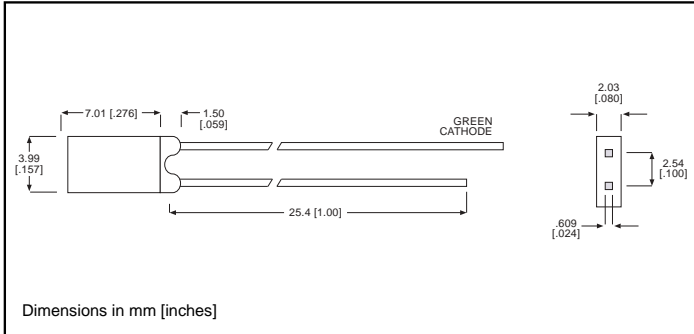
| <b>OPERATING CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ ) |         | Green<br><b>-9606</b> | Yellow<br><b>-9607</b> | Red<br><b>-9658</b> |
|---|---------|-----------------------|------------------------|---------------------|
| Luminous Intensity (mcd)                                    | Min.    | 2.2                   | 2.2                    | 1.1                 |
|   | Typical | 3.7                   | 3.7                    | 3.7                 |
| Peak Wavelength (nm)<br>$\lambda$ Peak                      | Typical | 565                   | 585                    | 635                 |
| Viewing Angle ( $2\theta$ $^\circ$ )                        | Typical | 104 $^\circ$          | 104 $^\circ$           | 104 $^\circ$        |
| Forward Voltage (V)   | Typical | 2.1                   | 2.1                    | 2.1                 |
|   | Max.    | 2.8                   | 2.8                    | 2.8                 |
| Reverse Voltage (V), $I_R=100\mu\text{A}$                   | Min.    | 5                     | 5                      | 5                   |

$\theta^1$  is the off axis angle at which the luminous intensity is half the axial luminous intensity

2mm x 4mm Discrete LED  
 Rectangular - Bi-Color  
 Non-Tinted, Diffused

**Dialight**

521-9640, -9743



**PART NO.**

**COLOR**

521-9640

Yellow/Green

521-9743

Red/Green

| <b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A=25^\circ\text{C}$ ) | Yellow/Green                                       | Red/Green    |
|--|--|--------------|
|  | <b>-9640</b>                                       | <b>-9743</b> |
| Power Dissipation (mW)                                     | 60/100   | 100/100      |
| Forward Current (mA)                                       | 20/30  | 30/30        |
| Derating (mA/ $^\circ\text{C}$ ) From 50 $^\circ\text{C}$  | .25/.4   | .4/.4        |
| Peak Current (mA)  | 80/120   | 120/120      |
| Pulse width = 100 $\mu\text{s}$                            |  |              |
| Operating Temperature ( $^\circ\text{C}$ )                 | -55/+100   | -55/+100     |
| Storage Temperature ( $^\circ\text{C}$ )                   | -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> ( $T_A=25^\circ\text{C}$ ) |         | Yellow/Green | Red/Green    |
|---|---------|--------------|--------------|
|   |         | <b>-9640</b> | <b>-9743</b> |
| Luminous Intensity (mcd)                                    | Min.    | .7/1.1       | 1.7/1.7      |
|   | Typical | 2.5/3.7      | 5.6/5.6      |
| Peak Wavelength (nm)  | Typical | 585/565      | 630/565      |
| $\lambda$ Peak  |         |              |              |
| Viewing Angle ( $2\Theta^{1/2}$ )                           | Typical | 140 $^\circ$ | 140 $^\circ$ |
| Forward Voltage (V)   | Typical | 2.1/2.1      | 2/2.1        |
|   | Max.    | 2.8/2.8      | 2.8/2.8      |

$\Theta^{1/2}$  is the off axis angle at which the luminous intensity is half the axial luminous intensity

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