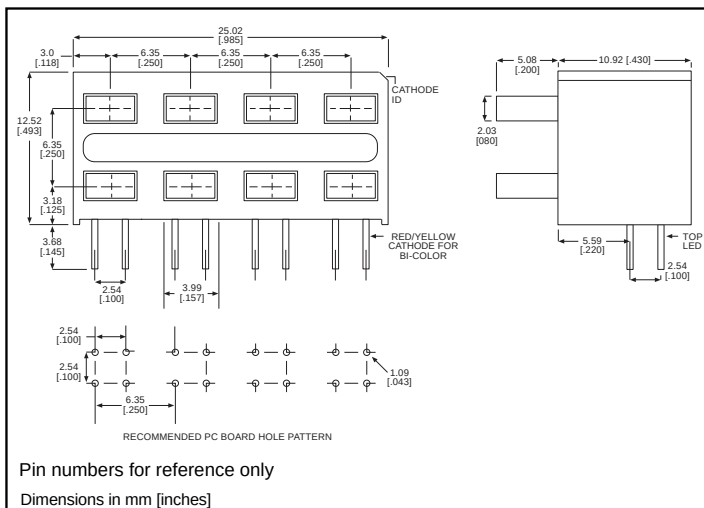


# 2mm x 4mm Rectangular LED CBI® Circuit Board Indicator Quad Bi-Level Array

# Dialight

## 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

Series  LED Type  ☐ Top Row LED Color

|   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 6 | 7 | - | 0 | x | x | x | - | 0 | 0 | 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|

☐ Bottom Row LED Color

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

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## Tolerance note: As noted, otherwise:

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

## Custom Combination

- Contact factory for information on custom color combinations

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

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 | $I_V$ mcd | $V_F$ Volts | Test Current (mA) | Viewing Angle $2\theta_{1/2}$ | 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   |

\*  $I_F = 20\text{mA}$

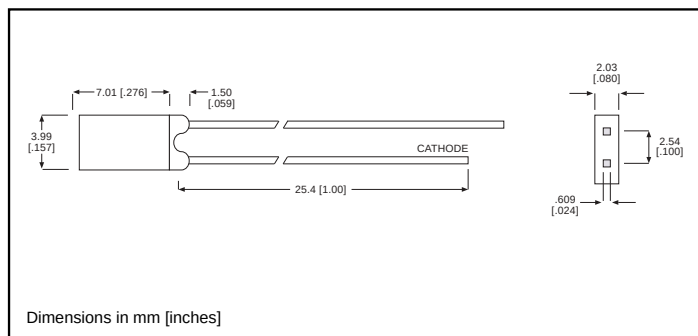
# 2mm x 4mm Discrete LED

## Rectangular

## Tinted

# Dialight

## 521-9606, -9607, -9658



### PART NO.

521-9606

521-9607

521-9658

### COLOR

Green

Yellow

Red

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

|                                           | Green<br>-9606                     | Yellow<br>-9607 | Red<br>-9658 |
|-------------------------------------------|------------------------------------|-----------------|--------------|
| 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 = 100 μs | 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

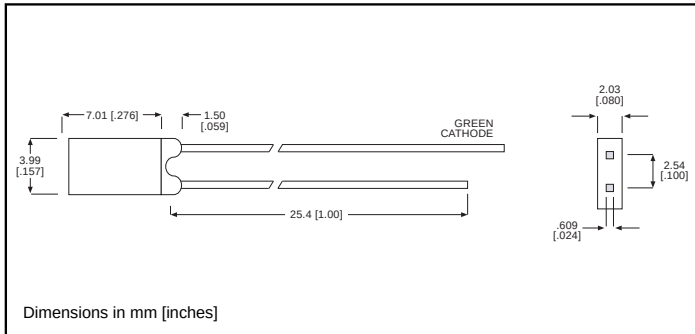
### OPERATING CHARACTERISTICS (T<sub>A</sub>=25°C)

|                                            |         | Green<br>-9606 | Yellow<br>-9607 | Red<br>-9658 |
|--------------------------------------------|---------|----------------|-----------------|--------------|
| Luminous Intensity (mcd)                   | Min.    | 2.2            | 2.2             | 1.1          |
| I <sub>F</sub> =10mA                       | Typical | 3.7            | 3.7             | 3.7          |
| Peak Wavelength (nm)<br>λ Peak             | Typical | 565            | 585             | 635          |
| Viewing Angle (2Θ <sup>1/2</sup> )         | Typical | 104°           | 104°            | 104°         |
| Forward Voltage (V)                        | Typical | 2.1            | 2.1             | 2.1          |
| I <sub>F</sub> =20mA                       | Max.    | 2.8            | 2.8             | 2.8          |
| Reverse Voltage (V), I <sub>R</sub> =100μA | Min.    | 5              | 5               | 5            |

Θ<sup>1</sup> 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.**

521-9640

521-9743

**COLOR**

Yellow/Green

Red/Green

**ABSOLUTE MAXIMUM RATINGS** ( $T_A=25^\circ\text{C}$ )

|                                                          | Yellow/Green<br><b>-9640</b>                       | Red/Green<br><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)<br>Pulse width = 100 $\mu\text{s}$     | 80/120                                             | 120/120                   |
| 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

**OPERATING CHARACTERISTICS** ( $T_A=25^\circ\text{C}$ )

|                                   |         | Yellow/Green<br><b>-9640</b> | Red/Green<br><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