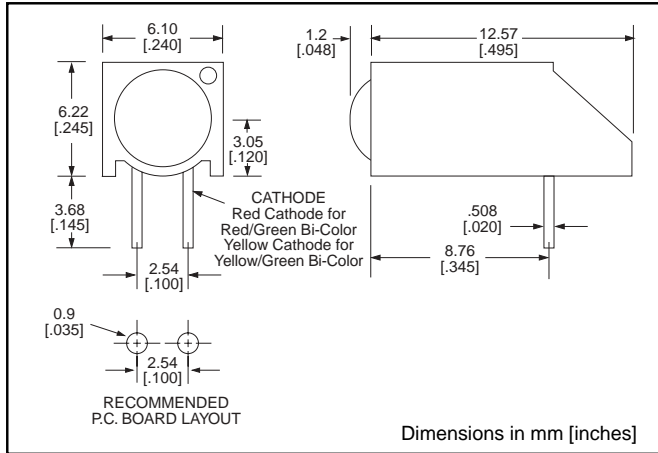


# 5mm LED CBI® Circuit Board Indicator For Backlighting

# Dialight

## 550-xx10



Standard Polarity shown in drawing: Cathode right

### PART NO.

**HIGH EFFICIENCY, TINTED,  
NON DIFFUSED**

550-1510

550-1610

550-1710

### COLOR

Green

Yellow

Red

### BI-COLOR

550-3010

550-3110

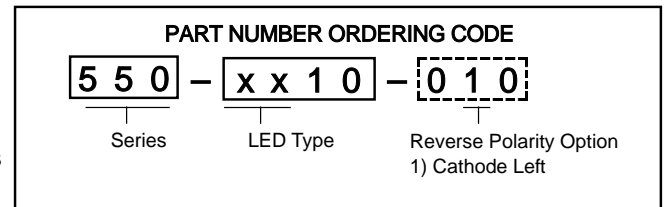
Red/Green

Yellow/Green

To order any of the 550-xx10 part numbers with Reverse Polarity (Cathode Left), please add -010 to the part numbers shown above.

## Features

- Extended housing and narrow viewing angle LEDs reduce light bleed
- Multiple CBIs form horizontal LED arrays on 6.35mm (0.250") center-lines.
- Optional stabilizing pin available - Contact Dialight for details
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 32%
- Polymer content: PBT, 0.275 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



-010 Ordering Code Suffix required

ONLY for Reverse Polarity Option

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## Tolerance note: As noted, otherwise:

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

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

See LED data sheet for additional information

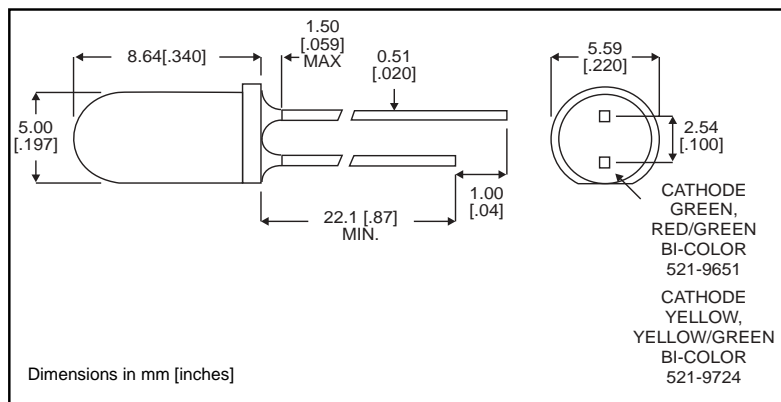
See page 6-55 and 6-56 for Reference Only LED Drive Circuit Examples. See page 6-57 for Pin Out

Part Number	Color	Peak Wavelength nm	$I_V$ mcd	$V_F$ Volts	Test Current (mA)	Viewing Angle $2\theta_{\%}$	LED Data sheet	Page #
550-1510	Green	565	110	2.2	20	30°	5HN-9420	6-50
550-1610	Yellow	585	110	2.2	20	30°	5HN-9421	6-50
550-1710	Red	650	110	2.1	20	30°	5HN-9419	6-50
550-3010	Red/Green	660/565	90/40	1.8/2.1	20	60°	521-9651	6-46
550-3110	Yellow/Green	585/565	8.7/8.7	2.1/2.1	20	50°	521-9724	6-46

**5mm Discrete LED  
Bi-Color  
Non-Tinted, Diffused**

**Dialight**

**521-9651, -9724**



PART NO.	LED COLOR
521-9651	Red/Green
521-9724	Yellow/Green

**MOUNTING CLIP: 515-0005**  
located on page 6-48

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

	Red/Green <b>-9651</b>	Yellow/Green <b>-9724</b>
Power Dissipation (mW)	100/100	60/100
Forward Current (mA) Derating (mA/°C) From 50°C	40/30 .5/.4	20/30 .25/.40
Peak Current (mA) Pulse width = 100 $\mu\text{s}$	200/120	80/120
Operating Temperature (°C)	-55/+100	-55/+100
Storage Temperature (°C)	-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** ( $T_A=25^\circ\text{C}$ )

		Red/Green <b>-9651</b>	Yellow/Green <b>-9724</b>
Luminous Intensity (mcd) $I_F=20\text{mA}$	Min. Typical	29/12.6 90/40	2.5/2.5 8.7/8.7
Peak Wavelength (nm) $\lambda$ Peak	Typical	660/565	585/565
Viewing Angle ( $2\theta$ )	Typical	60°	50°
Forward Voltage (V) $I_F=20\text{mA}$	Typical Max.	1.8/2.1 2.4/2.8	2.1/2.1 2.8/2.8

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

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 <b>-9419</b>	Green <b>-9420</b>	Yellow <b>-9421</b>
Power Dissipation (mW)	75	75	75
Derating (mW/°C) From 50°	1.5	1.5	1.5
Forward Current (mA)	25	25	25
Peak Current (mA) Pulse Width = 1 $\mu\text{s}$	60	60	60
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

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