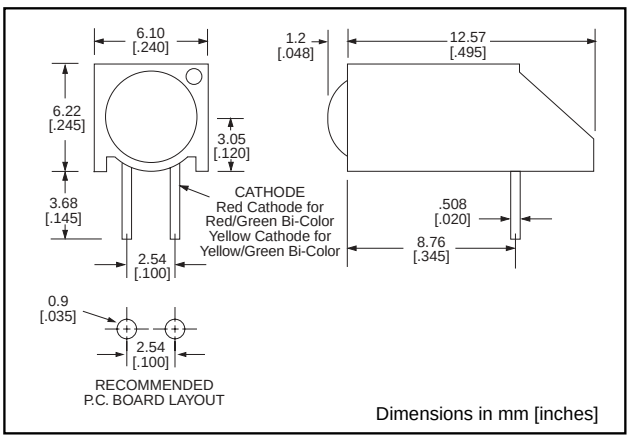
5mm
LED CBI® Circuit Board Indicator
For Backlighting

Dialight

550-xx10



Standard Polarity shown in drawing: Cathode right

PART NO.	COLOR
HIGH EFFICIENCY, TINTED, NON DIFFUSED	
550-1510	Green
550-1610	Yellow
550-1710	Red
BI-COLOR	
550-3010	Red/Green
550-3110	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

PART NUMBER ORDERING CODE

5 5 0	–	x x 1 0	–	0 1 0
Series		LED Type		Reverse Polarity Option 1) Cathode Left

–010 Ordering Code Suffix required ONLY for Reverse Polarity Option

Tolerance note: As noted, otherwise:

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

Typical Operating Characteristics (T_A=25°C)

See LED data sheet for additional information

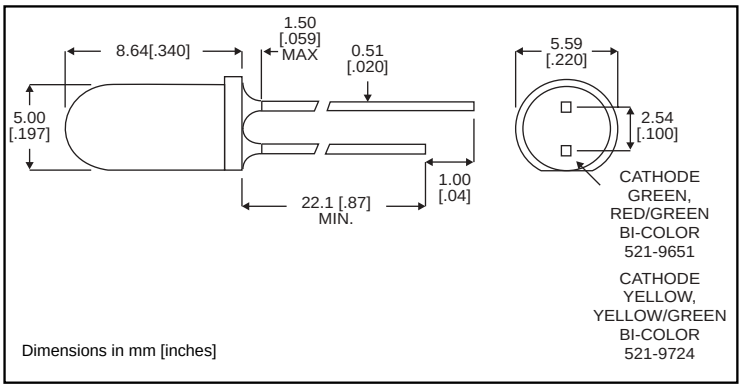
See page 6-55 and 6-56 for Reference Only LED Drive Circuit Examples. See page 6-57 for Pin Out

Part Number	Color	Peak Wavelength nm	Iv mcd	V_F Volts	Test Current (mA)	Viewing Angle $2\Theta_{½}$	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



Dimensions in mm [inches]

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°C)	Red/Green **-9651**	Yellow/Green **-9724**
Power Dissipation (mW)	100/100	60/100
Forward Current (mA)	40/30	20/30
Derating (mA/°C) *From 50°C*	.5/.4	.25/.40
Peak Current (mA) *Pulse width = 100 µs*	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°C)		Red/Green **-9651**	Yellow/Green **-9724**
Luminous Intensity (mcd)	Min.	29/12.6	2.5/2.5
I_F=20mA	Typical	90/40	8.7/8.7
Peak Wavelength (nm) λ Peak	Typical	660/565	585/565
Viewing Angle ($2\Theta_{1/2}$)	Typical	60°	50°
Forward Voltage (V)	Typical	1.8/2.1	2.1/2.1
I_F=20mA	Max.	2.4/2.8	2.8/2.8

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

5mm
High Efficiency
Tinted, Non-Diffused

Dialight

5HN-xxxx

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

TYPE	COLOR
*5HN-9419	Red
*5HN-9420	Green
*5HN-9421	Yellow

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)	Red **-9419**	Green **-9420**	Yellow **-9421**
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 µs*	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

OPERATING CHARACTERISTICS (T_A=25°C)		Red **-9419**	Green **-9420**	Yellow **-9421**
Luminous Intensity (mcd)	Min.	56	56	56
I_F=20mA	Typical	110	110	110
Peak Wavelength (nm)	Typical	650	565	565
λ Peak				
Viewing Angle (2Θ ½)		30°	30°	30°
Forward Voltage (V)I	Typical	2.1	2.2	2.2
I_F=20mA	Max	2.55	2.55	2.55
Reverse Voltage (V), I_R=100µA	Min.	5	5	5

Θ ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Dialight:

550-3110F 550-1610F 550-3010F 550-1510F 550-1710F 550-1610-806F 550-1610-803F 550-1710-802F 550-1510-804F