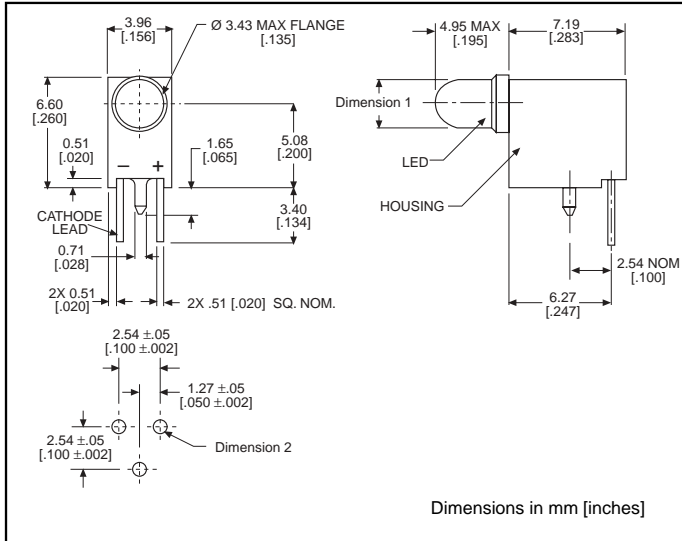


# 3mm LED CBI® Circuit Board Indicator .200" High LED Centerline, with Pin

# Dialight

## 551-xx11



PART NO.	COLOR	CHART
<b>HIGH EFFICIENCY</b>		
551-0211	Green	A
551-0311	Yellow	A
551-0411	Red	A
551-0811	Blue <sup>3</sup>	B
<b>LOW CURRENT</b>		
551-1111	Red	B
551-1211	Yellow	B
551-1311	Green	B

**NEW**

### Features

- Designed to accommodate DIN 41494
- Locating pin provides stability during soldering
- Multiple CBIs form horizontal LED arrays on 3.96mm (0.156") center-lines
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 31.5%
- Polymer content: PBT, 0.227 g
- Available with Red housing
- Available without pin
- 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

**4**

	CHART A	CHART B
Dimension 1	3.10 ±0.20 [0.122 ±0.008]	2.92 ±0.25 [0.115 ±0.010]
Dimension 2	2X .51 [0.020] SQ. NOM.	2X .46 [0.018] SQ. NOM.



### Tolerance note: As noted, otherwise:

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

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

See LED data sheet for additional information  
See page 4-70 and 4-71 for Reference Only LED Drive Circuit Examples. See page 4-72 for Pin Out

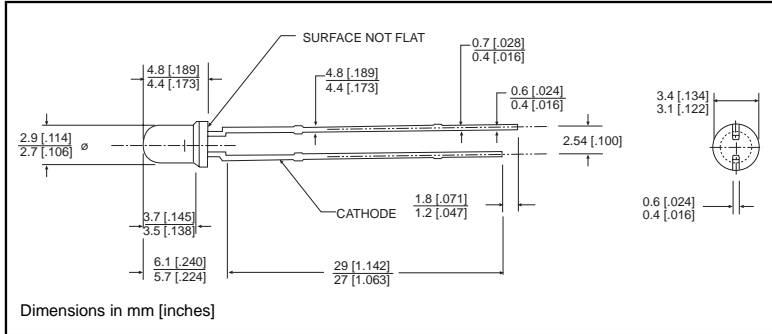
Part Number	Color	Peak Wavelength nm	I <sub>v</sub> mcd	V <sub>f</sub> Volts	Test Current (mA)	Viewing Angle 2Θ <sub>1/2</sub>	LED Data sheet	Page #
551-0211	Green	563	16	2.1	10	45°	521-9408	4-64
551-0311	Yellow	585	6.3	2.1	10	45°	521-9428	4-64
551-0411	Red	650	10	2	10	45°	521-9427	4-64
551-0811	Blue	428	12	3.5	10	70°	521-9831	4-57
551-1111	Red	635	1.6	1.7	2	60°	521-9324	4-60
551-1211	Yellow	585	1.6	1.8	2	60°	521-9325	4-60
551-1311	Green	565	1.6	1.9	2	60°	521-9326	4-60



# 3mm Discrete LED Tinted, Diffused



## 521-9831



**PART NO.** 521-9831  
**COLOR** Blue<sup>3</sup>

**MOUNTING CLIP:** 515-0006  
located on page 4-65



3

**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
SENSITIVE  
DEVICES

4

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

Blue  
-9831

Power Dissipation (mW)	100
Forward Current (mA)	20
Derating (mA/°C) From 55°C	.44
Operating Temperature (°C)	-40/+100
Storage Temperature (°C)	-40/+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)

Blue  
-9831

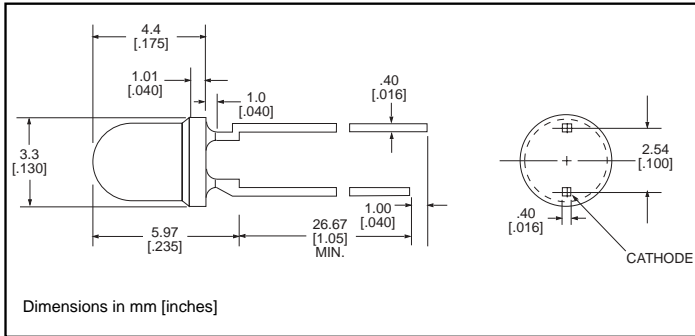
Luminous Intensity (mcd)	Min.	6.3
I <sub>F</sub> =10mA	Typical	12
Peak Wavelength (nm)	Typical	428
λ Peak		
Viewing Angle (2Θ <sub>1/2</sub> )	Typical	70°
Forward Voltage (V)	Typical	3.5
I <sub>F</sub> =10mA	Max.	4.2
Reverse Voltage (V) IR=10μA	Min.	3

Θ<sub>1/2</sub> is the off axis angle at which the luminous intensity is half the axial luminous intensity

**3mm Discrete LED**  
**Low Current**  
**Diffused**

**Dialight**

**521-9324, -9325, -9326**



<u>PART NO.</u>	<u>COLOR</u>
521-9324	Red
521-9325	Yellow
521-9326	Green

**MOUNTING CLIP:** 515-0006  
 located on page 4-65

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

	Red <b>-9324</b>	Yellow <b>-9325</b>	Green <b>-9326</b>
Power Dissipation (mW)	20	20	20
Forward Current (mA)	7	7	7
Derating (mA/ $^\circ\text{C}$ ) From $90^\circ\text{C}$	.7	.7	.7
Peak Current (mA) <i>Pulse width = 10 <math>\mu\text{s}</math></i>	500	500	500
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*

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

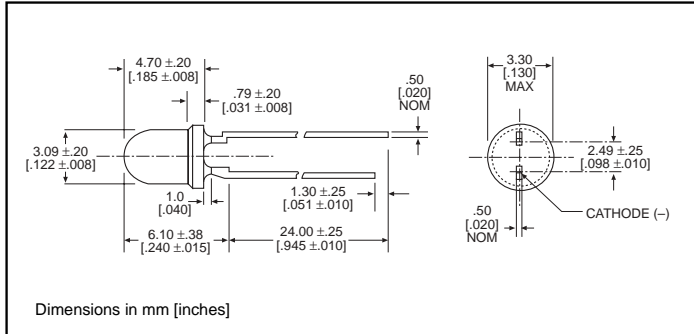
		Red <b>-9324</b>	Yellow <b>-9325</b>	Green <b>-9326</b>
Luminous Intensity (mcd) $I_F=2\text{mA}$	Min.	1	1	1
	Typical	1.6	1.6	1.6
Peak Wavelength (nm) $\lambda_{\text{Peak}}$	Typical	635	585	565
Viewing Angle ( $2\Theta$ )	Typical	60 $^\circ$	60 $^\circ$	60 $^\circ$
Forward Voltage (V) $I_F=2\text{mA}$	Typical	1.7	1.8	1.9
	Max.	2.2	2.7	2.2
Reverse Voltage (V), $I_R=50\mu\text{A}$	Min.	5	5	5

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

# 3mm Discrete LED High Efficiency Diffused

# Dialight

## 521-94xx



**TYPE**  
521-9408  
521-9427  
521-9428

**COLOR**  
Green  
Red  
Yellow

**MOUNTING CLIP: 515-0006**  
located on page 4-65

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

	Green <b>-9408</b>	Red <b>-9427</b>	Yellow <b>-9428</b>
Power Dissipation (mW)	75	60	60
Forward Current (mA)	25	20	20
Derating (mA/°C) From 50°C	.5	.5	.5
Peak Current (mA)	60	60	60
Operating Temperature (°C)	-25/+85	-25/+85	-25/+85
Storage Temperature (°C)	-30/+100	-30/+100	-30/+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 <b>-9408</b>	Red <b>-9427</b>	Yellow <b>-9428</b>
Luminous Intensity (mcd)	Min.	5.6	3.6	2.2
	Typical	16	10	6.3
Peak Wavelength (nm)	Typical	563	650	585
Viewing Angle (2θ <sup>1/2</sup> )	Typical	45°	45°	45°
Forward Voltage (V)	Typical	2.1	2	2.1
	Max.	3	3	3
Reverse Voltage (V), I <sub>R</sub> =10μA	Min.	3	3	3

θ<sup>1/2</sup> is the off axis angle at which the luminous intensity is half the axial luminous intensity