

Part Number: **5530311F**

### General Description


Series	553
Configuration	3 mm Lens
Description	3 mm Red/Red Bi-Level CBI Integral Resistor
Package Options	Bulk Packaging
Sizes	3mm
Lamp Type	Bi-Level Housing
Viewing	Right Angle
Polarity	Cathode Right
Lens Style	Tinted, Diffused
Viewing Angle	60
LED Centerline	5.0mm



### Absolute Maximum Ratings (Ta = 25°)

Reverse Current	100 @ Vr = 5V
Derating	0.086 (mA/degC)
Reverse Voltage	5
Solder Temperature	260 for 5 secs
Operating Temperature	-40 to +85
Storage Temperature	-55 to +100

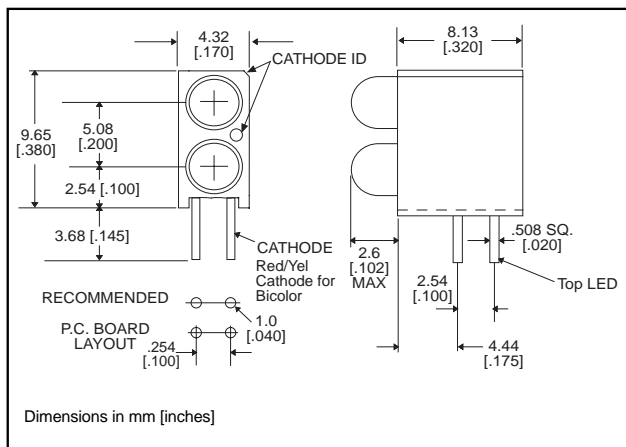
### Operating Characteristics

Color	 Red
LED Type	Integral Resistor
Peak Wave Length	635
LED Position	1,2
Luminous Intensity Min	8.7
Luminous Intensity Typical	29
Forward Voltage Typical	10
Forward Voltage Max	20
Test Current mA	20mA

# 3mm LED CBI® Circuit Board Indicator Bi-level



## 553-XXXX



Standard Polarity shown in drawing: Cathode right

### Features

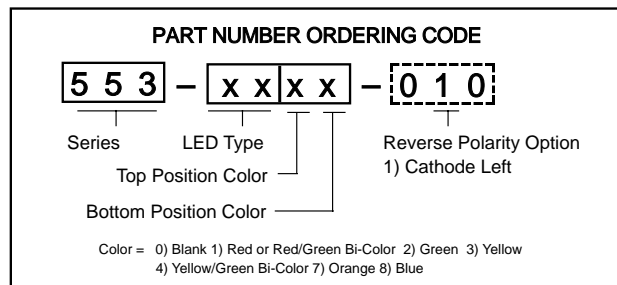
- Multiple CBIs form horizontal LED arrays on 4.45mm (0.175") center-lines. See page 4-41 and 4-42 for pre-assembled arrays
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 32%
- Polymer content: PBT, 0.343 g
- Housing stand-offs facilitate PCB cleaning
- Solderability per MIL-STD-202F, method 208F
- LEDs are safe for direct viewing per IEC 825-1, EN-60825-1

### Tolerance note: As noted, otherwise:

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

### Custom Combinations

- Contact factory for information on custom bi-level arrays and color combinations.



-010 Ordering Code Suffix required ONLY for Reverse Polarity Option

### PART NO.

### COLOR\*

#### HIGH EFFICIENCY - LED TYPE 01

- |          |                   |
|----------|-------------------|
| 553-0111 | Red               |
| 553-0122 | Green             |
| 553-0133 | Yellow            |
| 553-0177 | Orange            |
| 553-0188 | Blue <sup>3</sup> |



#### LOW CURRENT - LED TYPE 02

- |          |        |
|----------|--------|
| 553-0211 | Red    |
| 553-0222 | Green  |
| 553-0233 | Yellow |

#### RESISTOR 5 VOLTS - LED TYPE 03

- |          |        |
|----------|--------|
| 553-0311 | Red    |
| 553-0322 | Green  |
| 553-0333 | Yellow |

#### BI-COLOR - LED TYPE 07

- |          |              |
|----------|--------------|
| 553-0711 | Red/Green    |
| 553-0744 | Yellow/Green |

#### NON-DIFFUSED - LED TYPE 22

- |          |        |
|----------|--------|
| 553-2211 | Red    |
| 553-2222 | Green  |
| 553-2233 | Yellow |

\* Top-Bottom LED

To order any of the 553-xxxx part numbers with Reverse Polarity (Cathode Left), please add -010 to the part numbers shown above.



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

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

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

### HIGH EFFICIENCY

Part Number	Color	Peak Wavelength nm	$I_V$ mcd	$V_F$ Volts	Test Current (mA)	Viewing Angle $2\theta_{\%}$	LED Data sheet	Page #
553-0111	Red	650	10	2	10	45°	521-9427	4-64
553-0122	Green	563	16	2.1	10	45°	521-9408	4-64
553-0133	Yellow	585	6.3	2.1	10	45°	521-9428	4-64
553-0177	Orange	600	7	2.2	10	60°	521-9498	4-58
553-0188	Blue	428	12	3.5	10	70°	521-9831	4-57

### LOW CURRENT

Part Number	Color	Peak Wavelength nm	$I_V$ mcd	$V_F$ Volts	Test Current (mA)	Viewing Angle $2\theta_{\%}$	LED Data sheet	Page #
553-0211	Red	635	1.6	1.7	2	60°	521-9324	4-60
553-0222	Green	565	1.6	1.9	2	60°	521-9326	4-60
553-0233	Yellow	585	1.6	1.8	2	60°	521-9325	4-60

### INTEGRAL RESISTOR, 5 VOLTS

Part Number	Color	Peak Wavelength nm	$I_V$ mcd	Test Voltage	Forward Current (mA)	Viewing Angle $2\theta_{\%}$	LED Data sheet	Page #
553-0311	Red	635	29	5	10	60°	521-9215	4-59
553-0322	Green	565	19	5	10	60°	521-9323	4-59
553-0333	Yellow	585	12.6	5	10	60°	521-9322	4-59

### BI-COLOR

Part Number	Color	Peak Wavelength nm	$I_V$ mcd	$V_F$ Volts	Test Current (mA)	Viewing Angle $2\theta_{\%}$	LED Data sheet	Page #
553-0711	Red/Green	635/565	4.7/10	2/2.1	10	50°	521-9459	4-63
553-0744	Yellow/Green	585/565	4.3/6.3	2.1*/2.1*	10	80°	521-9478	4-62

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

### NON-DIFFUSED

Part Number	Color	Peak Wavelength nm	$I_V$ mcd	$V_F$ Volts*	Test Current (mA)	Viewing Angle $2\theta_{\%}$	LED Data sheet	Page #
553-2211	Red	635	29	2	10	45°	521-9432	4-61
553-2222	Green	565	50	2.1	10	45°	521-9430	4-61
553-2233	Yellow	585	20	2.1	10	45°	521-9431	4-61

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

### CBI ARRAYS .200 PITCH

Dialight offers its Multiarray to reduce insertions and to assure indicator alignment. Multiarrays mount indicators on .200 centers. These assemblies are available in arrays of 2 to 6. See pages 4-41 and 4-42 for information. Call factory for information on .185 pitched arrays.

