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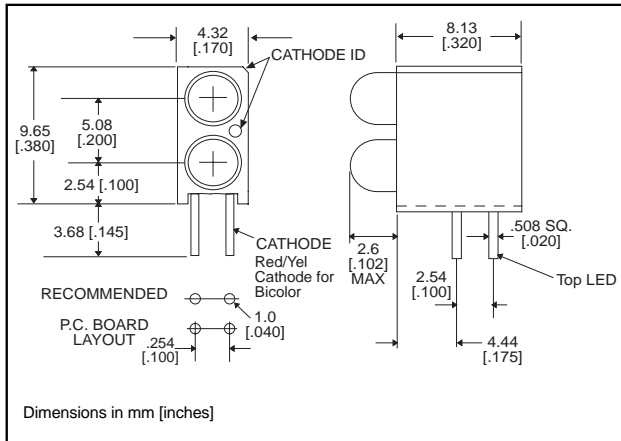
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Jameco Part Number 1716035

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



## 553-XXXX



Standard Polarity shown in drawing: Cathode right

### Features

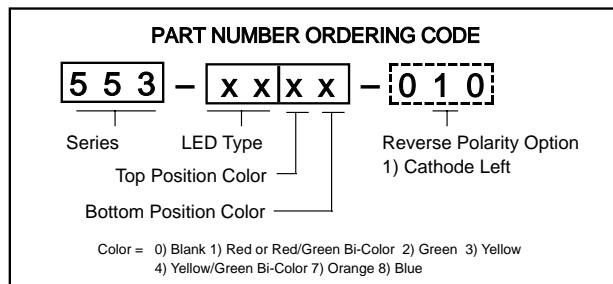
- Multiple CBIs form horizontal LED arrays on 4.45mm (0.175") center-lines. See page 4-41 and 4-42 for pre-assembled arrays
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 32%
- Polymer content: PBT, 0.343 g
- Housing stand-offs facilitate PCB cleaning
- Solderability per MIL-STD-202F,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

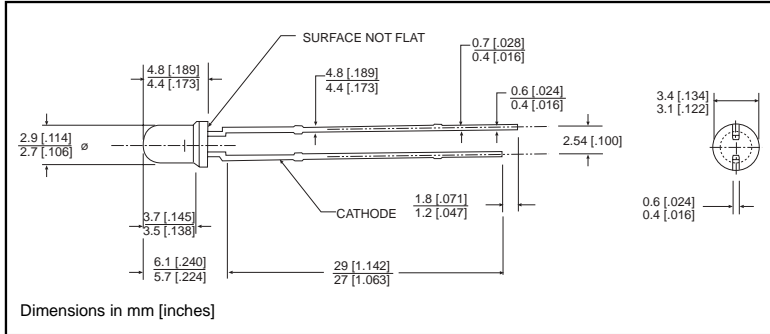
Dialight offers its Multiarray to reduce insertions and to assure indicator alignment. Multiarrays mount indicators on .200 centers. These assemblies are available in arrays of 2 to 6. See pages 4-41 and 4-42 for information. Call factory for information on .185 pitched arrays.



# 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



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

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### 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) I <sub>R</sub> =10μA	Min.	3

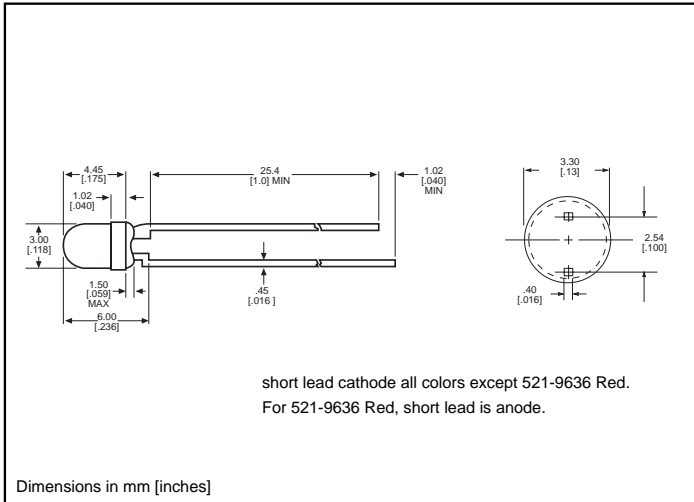
Θ<sub>1/2</sub> is the off axis angle at which the luminous intensity is half the axial luminous intensity

# 3mm Discrete LED

## High Efficiency

## Diffused

# 521-9210, -9211, -9216, -9498, -9636



### PART NO. COLOR

521-9210 Green

521-9211 Yellow

521-9216 Red

521-9498 Orange

521-9636 Red



**MOUNTING CLIP: 515-0006**

located on page 4-65

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>A</sub> =25°C)	Green <b>-9210</b>	Yellow <b>-9211</b>	Red <b>-9216</b>	Orange <b>-9498</b>	Red <b>-9636</b>
Power Dissipation (mW)	100	60	100	135	100
Forward Current (mA)	30	20	30	25	40
Derating (mA/°C) From 50°C 1 from 25°C	.4	.25	.4	.5	.5 <sup>1</sup>
Operating Temperature (°C)	-55/+100	-55/+100	-55/+100	-55/+100	-55/+100
Storage Temperature (°C)	-55/+100	-55/+100	-55/+100	-55/+100	-55/+100
Soldering Temperature	260°C, 5 seconds, 1.6 mm from body				

Solder Adherence per MIL-STD-202E, Method 208C

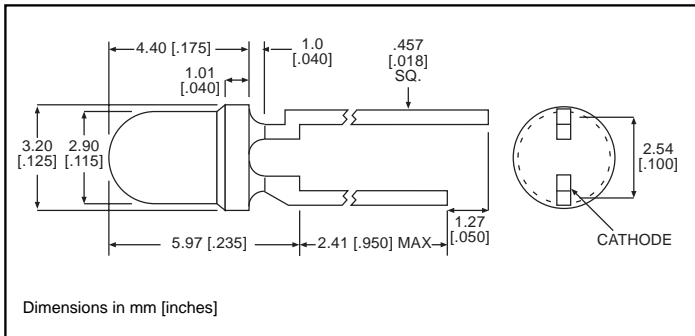
<b>OPERATING CHARACTERISTICS</b> (T <sub>A</sub> =25°C)		Green <b>-9210</b>	Yellow <b>-9211</b>	Red <b>-9216</b>	Orange <b>-9498</b>	Red <b>-9636</b>
Luminous Intensity (mcd)	Min.	4.7	7.4	7.4	3.4	8.7 <sup>1</sup>
	Typical	12.6	10	10	7	48 <sup>1</sup>
Peak Wavelength (nm)	Typical	565	585	635	600	660
Viewing Angle (2θ °)	Typical	60°	60°	60°	60°	60°
Forward Voltage (V)	Typical	2.1 <sup>1</sup>	2.1 <sup>1</sup>	2 <sup>1</sup>	2.2	1.8 <sup>1</sup>
	Max.	2.8 <sup>1</sup>	2.8 <sup>1</sup>	2.8 <sup>1</sup>	3	2.4 <sup>1</sup>
Reverse Voltage (V), I <sub>R</sub> =100µA	Max.	5	5	5	5	4

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

**3mm Discrete LED  
Integral Resistor, 5V  
Diffused**

**Dialight**

**521-9215, -9322, -9323**



PART NO.	COLOR
521-9215	Red
521-9322	Yellow
521-9323	Green

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

<b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A=25^\circ\text{C}$ )	Red	Yellow	Green
	<b>-9215</b>	<b>-9322</b>	<b>-9323</b>
Forward Voltage (V)	7.5	7.5	7.5
Derating ( $V/^\circ\text{C}$ ) From $50^\circ\text{C}$	.086	.086	.071
Operating Temperature ( $^\circ\text{C}$ )	-40/+85	-40/+85	-20/+85
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

<b>OPERATING CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ )		Red	Yellow	Green
		<b>-9215</b>	<b>-9322</b>	<b>-9323</b>
Luminous Intensity (mcd)	Min.	8.7	3.7	5.6
	Typical	29	12.6	19
Peak Wavelength (nm)	Typical	635	585	565
Viewing Angle ( $2\theta_{1/2}$ )	Typical	60 $^\circ$	60 $^\circ$	60 $^\circ$
Forward Current (mA)	Typical	10	10	10
	Max.	20	20	20
Reverse Voltage (V), $I_R=100\mu\text{A}$	Min.	5	5	5

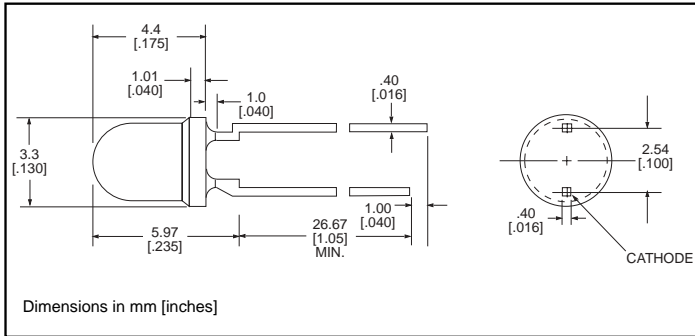
$\theta_{1/2}$  is the off axis angle at which the luminous intensity is half the axial luminous intensity

**4**

**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) Pulse width = 10 $\mu\text{s}$	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** ( $T_A=25^\circ\text{C}$ )

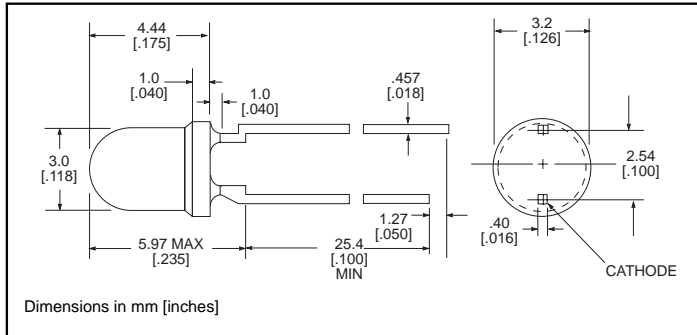
		Red <b>-9324</b>	Yellow <b>-9325</b>	Green <b>-9326</b>
Luminous Intensity (mcd) $I_F=2\text{mA}$	Min.	1	1	1
	Typical	1.6	1.6	1.6
Peak Wavelength (nm) $\lambda$ Peak	Typical	635	585	565
Viewing Angle ( $2\theta$ $^\circ$ )	Typical	60 $^\circ$	60 $^\circ$	60 $^\circ$
Forward Voltage (V) $I_F=2\text{mA}$	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**  
**Tinted, Non-Diffused**

**Dialight**

**521-9430, -9431, -9432**



**PART NO.**

**COLOR**

521-9430  
 521-9431  
 521-9432

Green  
 Yellow  
 Red

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

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

	Green <b>-9430</b>	Yellow <b>-9431</b>	Red <b>-9432</b>
Power Dissipation (mW)	100	60	100
Forward Current (mA)	30	20	30
Derating (mA/°C) From 50°C	.4	.25	.4
Peak Current (mA) Pulse width = 100µs	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** ( $T_A=25^\circ\text{C}$ )

		Green <b>-9430</b>	Yellow <b>-9431</b>	Red <b>-9432</b>
Luminous Intensity (mcd) $I_F=10\text{mA}$	Min.	32	10	8.7
	Typical	50	20	29
Peak Wavelength (nm) $\lambda$ Peak	Typical	565	585	635
Viewing Angle ( $2\theta_{1/2}$ )	Typical	45°	45°	45°
Forward Voltage (V) $I_F=20\text{mA}$	Typical	2.1	2.1	2
	Max.	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

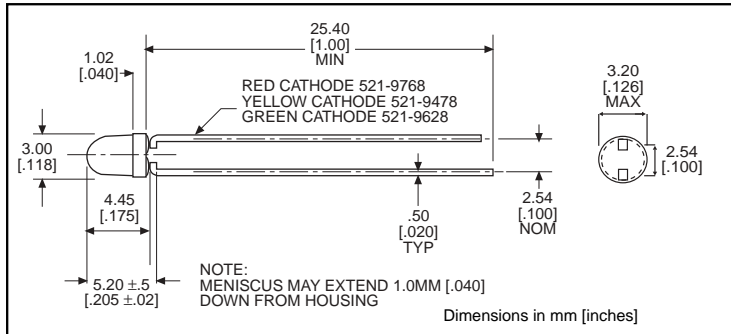
**4**



**3mm Discrete LED**  
**Bi-Color**  
**Non-Tinted, Diffused**



**521-9478, -9628, -9768**



<u>PART NO.</u>	<u>COLOR</u>
521-9478	Yellow/Green
521-9628	Red/Green
521-9768	Red/Yellow

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

<b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A=25^\circ\text{C}$ )	Yellow/Green <b>-9478</b>	Red/Green <b>-9628</b>	Red/Yellow <b>-9768</b>
Power Dissipation (mW)	60/100	140/100	100/60
Forward Current (mA)	20/30	40/30	30/20
Derating (mA/°C) From 25°C From 50°C	.25 <sup>1</sup> /.40 <sup>1</sup>	.5/.4	.4 <sup>1</sup> /.25 <sup>1</sup>
Peak Current (mA) Pulse width = 10µs	80/120	200/120	120/80
Operating Temperature (°C)	-55/+100	-55/+100	-55/+100
Storage Temperature (°C)	-55/+100	-55/+100	-55/+100
Soldering Temperature	260°C, 5 seconds, 1.66 mm from case		

Solder Adherence per MIL-STD-202E, Method 208C

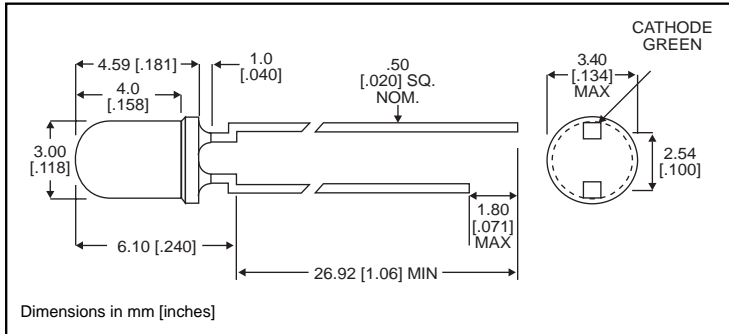
<b>OPERATING CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ )		Yellow/Green <b>-9478</b>	Red/Green <b>-9628</b>	Red/Yellow <b>-9768</b>
Luminous Intensity (mcd)	Min.	2.5/2.5	3.7*/1.1*	1.7*/1.7*
	Typical	4.3/6.3	12.6*/3.7*	5.6*/5.6*
Peak Wavelength (nm)	Typical	585/565	660/565	630/585
$\lambda$ Peak				
Viewing Angle ( $2\theta$ °)	Typical	80°	200°	80°
Forward Voltage (V)	Typical	2.1/2.1	1.8/2.1	2/2.1
	Max.	2.8/2.8	2.4/2.8	2.8/2.8
Reverse Voltage (V) $I_R=100\text{ua}$	Min.	5	5	5

° is the off axis angle at which the luminous intensity is half the axial luminous intensity

**3mm Discrete LED  
Bi-Color  
Non-Tinted, Diffused**

**Dialight**

**521-9459**



**PART NO.** 521-9459  
**COLOR** Red/Green

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

**4**

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

Red/Green  
**-9459**

Power Dissipation (mW)	140
Forward Current (mA)	45
Derating (mA/°C) From 25°C	.6
Peak Current (mA) <i>Pulse width = 10µs</i>	1000
Operating Temperature (°C)	-55/+100
Storage Temperature (°C)	-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  
**-9459**

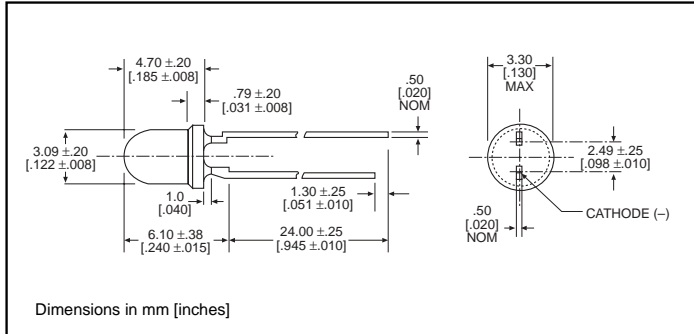
Luminous Intensity (mcd) $I_F=10\text{mA}$	Min. Typical	2.5/3.7 4.7/10
Peak Wavelength (nm) $\lambda$ Peak	Typical	635/565
Viewing Angle ( $2\theta_{1/2}$ )	Typical	50°
Forward Voltage (V) $I_F=10\text{mA}$	Typical Max.	2/2.1 2.8/2.8

$\theta_{1/2}$  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		

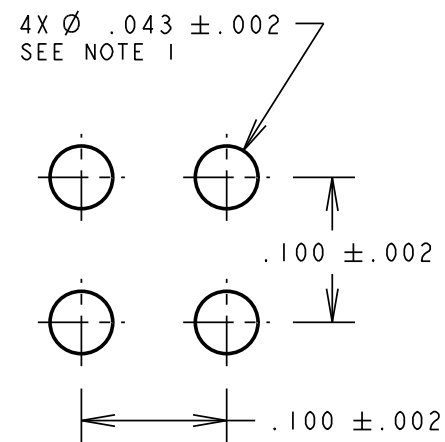
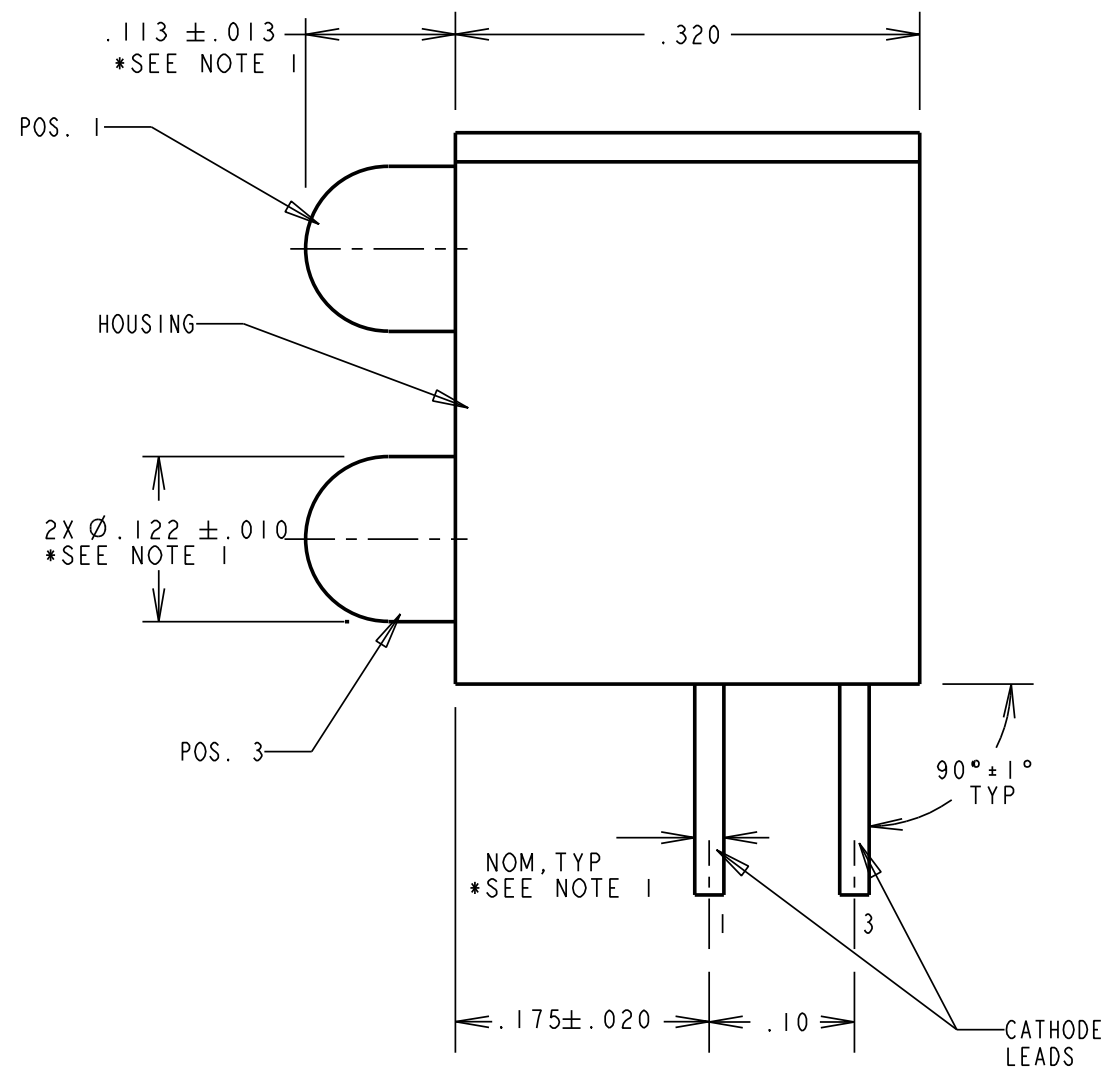
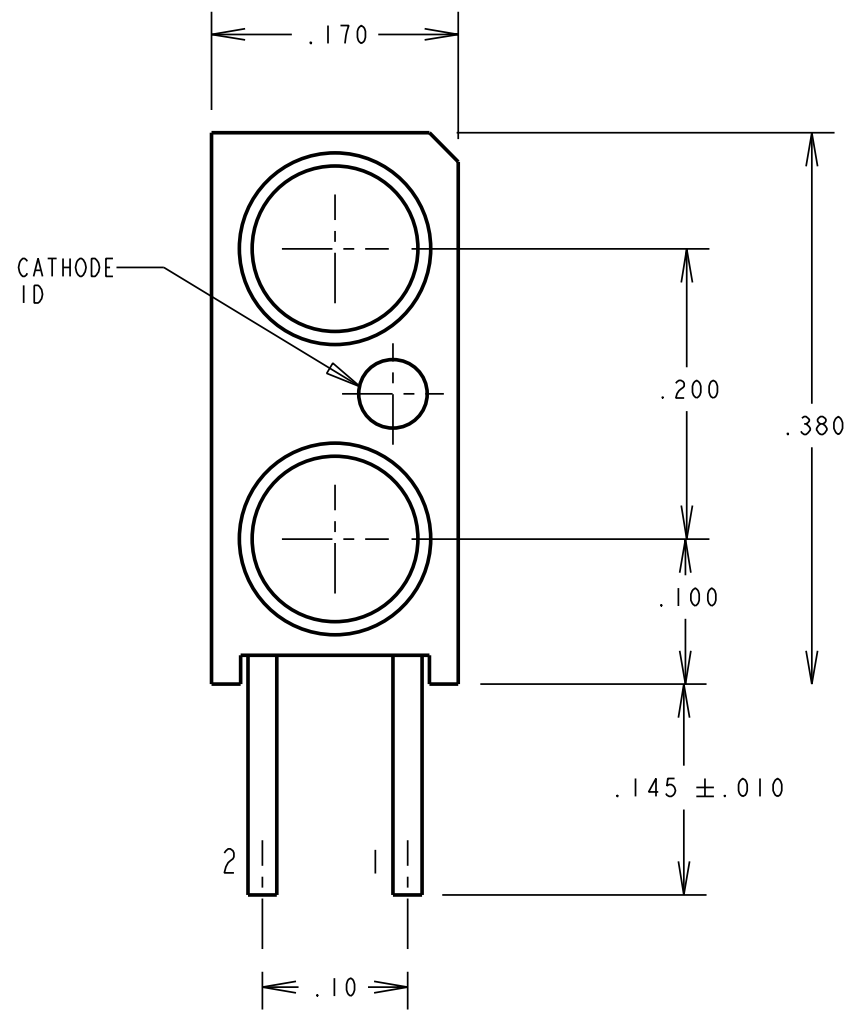
Solder Adherence per MIL-STD-202E, Method 208C

### 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

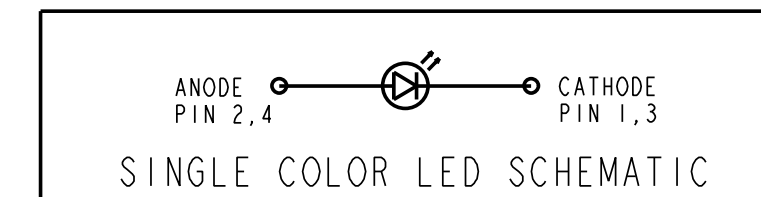
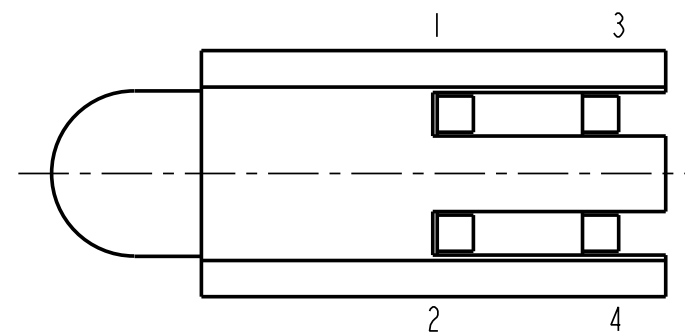
θ<sup>1/2</sup> is the off axis angle at which the luminous intensity is half the axial luminous intensity

ASSY. NO. (CAT. NO.)	LED COLOR		NOTE
	POSITION 1	POSITION 2	
553-0101	BLANK	RED	
553-0102	BLANK	GREEN	
553-0103	BLANK	YELLOW	
553-0108	BLANK	BLUE	**
553-0110	RED	BLANK	
553-0111	RED	RED	
553-0112	RED	GREEN	
553-0113	RED	YELLOW	
553-0118	RED	BLUE	**
553-0120	GREEN	BLANK	
553-0121	GREEN	RED	
553-0122	GREEN	GREEN	
553-0123	GREEN	YELLOW	
553-0128	GREEN	BLUE	**
553-0130	YELLOW	BLANK	
553-0131	YELLOW	RED	
553-0132	YELLOW	GREEN	
553-0133	YELLOW	YELLOW	
553-0182	BLUE	GREEN	**
553-0188	BLUE	BLUE	**
553-0201	BLANK	RED	*
553-0202	BLANK	GREEN	*
553-0203	BLANK	YELLOW	*
553-0210	RED	BLANK	*
553-0211	RED	RED	*
553-0212	RED	GREEN	*
553-0213	RED	YELLOW	*
553-0220	GREEN	BLANK	*
553-0221	GREEN	RED	*
553-0222	GREEN	GREEN	*
553-0223	GREEN	YELLOW	*
553-0230	YELLOW	BLANK	*
553-0231	YELLOW	RED	*
553-0232	YELLOW	GREEN	*
553-0233	YELLOW	YELLOW	*
553-0301	BLANK	RED	*
553-0302	BLANK	GREEN	*
553-0303	BLANK	YELLOW	*
553-0310	RED	BLANK	*
553-0311	RED	RED	*
553-0312	RED	GREEN	*
553-0313	RED	YELLOW	*
553-0320	GREEN	BLANK	*
553-0321	GREEN	RED	*
553-0322	GREEN	GREEN	*
553-0323	GREEN	YELLOW	*
553-0331	YELLOW	RED	*
553-0332	YELLOW	GREEN	*
553-0333	YELLOW	YELLOW	*



RECOMMENDED PC BOARD HOLE PATTERN

REV	ECN NO	REVISIONS	DRN	CKD	APP	DATE
A		NEW RELEASE	LR	--	N.O.	4-20-95
B		ADDED P/N 553-0188, NOTE 2, LED SPECS & "ATTENTION" NOTE.	TC	DC	N.O.	10-18-99
C		ADDED BOTTOM VIEW WITH PIN DESIGNATION AND SCHEMATIC.	TC	DC	N.O.	5-18-99
D		REVISED 5V RED, GREEN AND YELLOW LED SPECS.	TC	DC	N.O.	9-18-00
E		REVISED 2mA RED, GREEN AND YELLOW LED FORWARD VOLTAGE TYP. SPECS. AND RED LUMINOUS INTENSITY TYP. SPEC. ADDED NOTE 3 AND TITLE.	DC	KD	N.O.	2-19-01
F		ADDED P/N 553-0108, 553-0118, 553-0128, 553-0230 & ESD LOGO	JMC	N.O.	MES	3-10-04
G		ADDED P/N 553-0182	JMC	N.O.	Y.C.	11-1-04
H		REV LETTER "G" IN REVISION TABLE WAS "F"	TWC			



NOTE:

- \* DENOTES PARTS WITH LED PROTRUSION OF  $.103 \pm .013$ , WITH LEADS  $.018$  SQ. NOM., LED BODY  $\phi .115 \pm .010$  AND THE PC BOARD RECOMMENDED HOLE SIZE IS  $\phi .040 \pm .002$ .
- DIALIGHT PART NUMBER: 553-0XXX
- PIN NUMBER FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PARTS.



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

10 ma LED. OPERATING CHARACTERISTICS AT $T_A = 25^\circ C$						
SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS
$V_F$	FORWARD VOLTAGE	RED		2.0	3.0	V
		YELLOW		2.1	3.0	
		GREEN		2.1	3.0	
		BLUE		3.5	4.2	
$V_R$		ALL	3			V
$\lambda_{PK}$	PEAK WAVELENGTH	RED		650		nm
		YELLOW		585		
		GREEN		563		
		BLUE		428		
$I_V$	LUMINOUS INTENSITY	RED	3.6	10.0		mcd
		YELLOW	2.2	6.3		
		GREEN	5.6	16.0		
		BLUE	6.3	20		

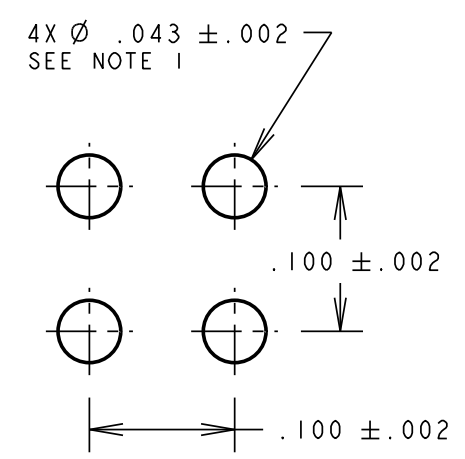
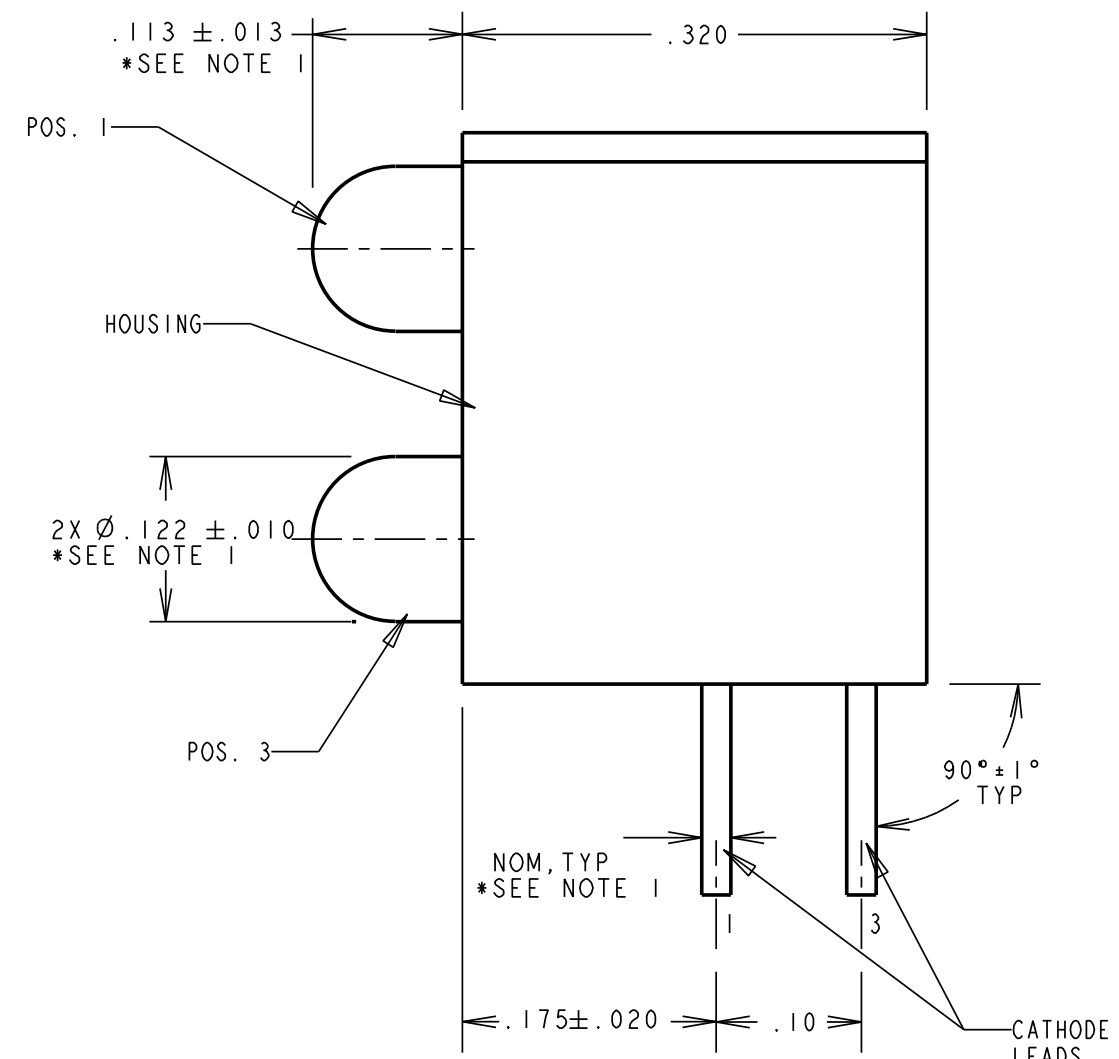
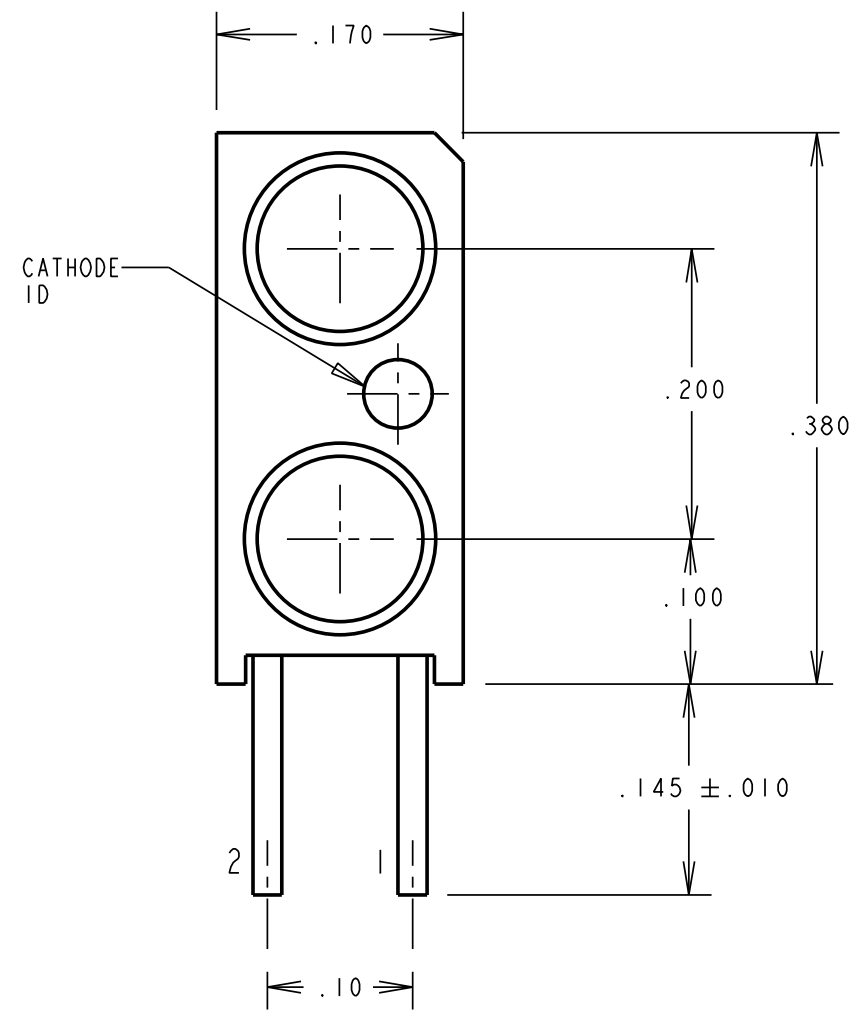
2 ma LOW CURRENT LED. OPERATING CHARACTERISTICS AT $T_A = 25^\circ C$						
SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS
$V_F$	FORWARD VOLTAGE	RED		1.7	2.2	V
		YELLOW		1.8	2.7	
		GREEN		1.9	2.2	
$V_R$		ALL	5			V
$\lambda_{PK}$	PEAK WAVELENGTH	RED		635		nm
		YELLOW		583		
		GREEN		565		
		RED	1.0	1.6		
YELLOW	1.0	1.6				
GREEN	1.0	1.6				

5 V., INTEGRAL RESISTOR LED OPERATING CHARACTERISTICS AT $T_A = 25^\circ C$						
SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS
$I_F$	FORWARD CURRENT	RED		10	20	mA
		YELLOW		10	20	
		GREEN		10	20	
$V_R$		ALL	5			V
$\lambda_{PK}$	PEAK WAVELENGTH	RED		635		nm
		YELLOW		585		
		GREEN		565		
		RED	8.7	29		
YELLOW	3.7	12.6				
GREEN	5.6	19				

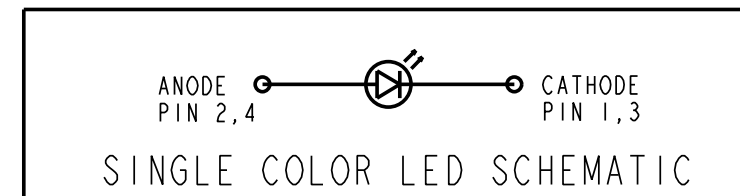
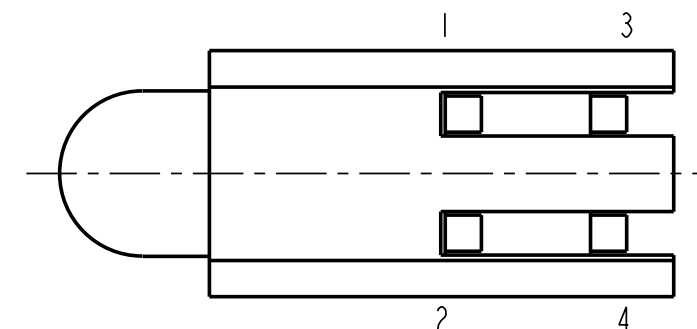
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SCALE: DRAWING SCALE	DRAWING NUMBER	REV
ALL DIM'S IN: INCHES (MM)	C-15967	H
TOLERANCES: UNLESS OTHERWISE SPECIFIED	TITLE	
FRACTIONS: $\pm 1/64$	3mm LED BI-LEVEL CBI	
DECIMALS (.XXX): $\pm .02$	MATERIAL	
DECIMALS (.XXXX): $\pm .015$		
ANGLES: $\pm 1^\circ$		
FINISH:	Dialight	
FSCM 83330	1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727	
	SHEET 1 OF 1	FAMILY TABLES:

ASSY. NO. (CAT. NO.)	LED COLOR		NOTE
	POSITION 1	POSITION 2	
553-0101F	BLANK	RED	
553-0102F	BLANK	GREEN	
553-0103F	BLANK	YELLOW	
553-0108F	BLANK	BLUE	**
553-0110F	RED	BLANK	
553-0111F	RED	RED	
553-0112F	RED	GREEN	
553-0113F	RED	YELLOW	
553-0118F	RED	BLUE	**
553-0120F	GREEN	BLANK	
553-0121F	GREEN	RED	
553-0122F	GREEN	GREEN	
553-0123F	GREEN	YELLOW	
553-0128F	GREEN	BLUE	**
553-0130F	YELLOW	BLANK	
553-0131F	YELLOW	RED	
553-0132F	YELLOW	GREEN	
553-0133F	YELLOW	YELLOW	
553-0182F	BLUE	GREEN	**
553-0188F	BLUE	BLUE	**
553-0201F	BLANK	RED	*
553-0202F	BLANK	GREEN	*
553-0203F	BLANK	YELLOW	*
553-0210F	RED	BLANK	*
553-0211F	RED	RED	*
553-0212F	RED	GREEN	*
553-0213F	RED	YELLOW	*
553-0220F	GREEN	BLANK	*
553-0221F	GREEN	RED	*
553-0222F	GREEN	GREEN	*
553-0223F	GREEN	YELLOW	*
553-0230F	YELLOW	BLANK	*
553-0231F	YELLOW	RED	*
553-0232F	YELLOW	GREEN	*
553-0233F	YELLOW	YELLOW	*
553-0301F	BLANK	RED	*
553-0302F	BLANK	GREEN	*
553-0303F	BLANK	YELLOW	*
553-0310F	RED	BLANK	*
553-0311F	RED	RED	*
553-0312F	RED	GREEN	*
553-0313F	RED	YELLOW	*
553-0320F	GREEN	BLANK	*
553-0321F	GREEN	RED	*
553-0322F	GREEN	GREEN	*
553-0323F	GREEN	YELLOW	*
553-0331F	YELLOW	RED	*
553-0332F	YELLOW	GREEN	*
553-0333F	YELLOW	YELLOW	*

REV	ECN NO	REVISIONS	DRN	CKD	APP	DATE
A		NEW RELEASE	TWC			

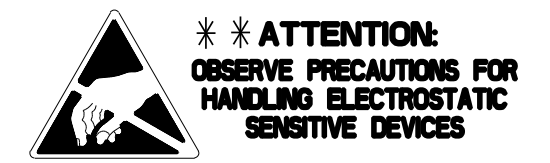


RECOMMENDED PC BOARD HOLE PATTERN



NOTE:

- \*DENOTES PARTS WITH LED PROTRUSION OF  $.103 \pm .013$ , WITH LEADS  $.018$  SQ. NOM., LED BODY  $\phi .115 \pm .010$  AND THE PC BOARD RECOMMENDED HOLE SIZE IS  $\phi .040 \pm .002$ .
- DIALIGHT PART NUMBER: 553-0XXXF
- PIN NUMBER FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PARTS.



RoHS Compliant 553-0xxxF Thru hole Bi-level CBI

Part Numbers with the "F" suffix ending are RoHS Compliant. Example: 553-0101F, 553-0333F. The bag packaging is marked with "RoHS Compliant" label or equivalent markings. Parts can be wave soldered, dip soldered or hand soldered using typical lead-free soldering process with max 260°C temp. for 5 sec.

10 ma LED. OPERATING CHARACTERISTICS AT $T_A = 25^\circ C$						
SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS TEST COND.
$V_F$	FORWARD VOLTAGE	RED		2.0	3.0	V $I_F = 10$ mA
		YELLOW		2.1	3.0	
		GREEN		2.1	3.0	
		BLUE		3.5	4.2	
$V_R$		ALL	3			V $I_R = 10$ $\mu$ A
$\lambda_{PK}$	PEAK WAVELENGTH	RED		650		nm MEASURED AT PEAK
		YELLOW		585		
		GREEN		563		
		BLUE		428		
$I_V$	LUMINOUS INTENSITY	RED	3.6	10.0		mcd $I_F = 10$ mA
		YELLOW	2.2	6.3		
		GREEN	5.6	16.0		
		BLUE	6.3	20		

2 ma LOW CURRENT LED. OPERATING CHARACTERISTICS AT $T_A = 25^\circ C$						
SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS TEST COND.
$V_F$	FORWARD VOLTAGE	RED		1.7	2.2	V $I_F = 2$ mA
		YELLOW		1.8	2.7	
		GREEN		1.9	2.2	
$V_R$		ALL	5			V $I_R = 50$ $\mu$ A
$\lambda_{PK}$	PEAK WAVELENGTH	RED		635		nm MEASURED AT PEAK
		YELLOW		583		
		GREEN		565		
		BLUE		428		
$I_V$	LUMINOUS INTENSITY	RED	1.0	1.6		mcd $I_F = 2$ mA
		YELLOW	1.0	1.6		
		GREEN	1.0	1.6		

5 V., INTEGRAL RESISTOR LED OPERATING CHARACTERISTICS AT $T_A = 25^\circ C$						
SYMBOL	PARAMETER	COLOR	MIN	TYP	MAX	UNITS TEST COND.
$I_F$	FORWARD CURRENT	RED		10	20	mA $V_F = 5$ V
		YELLOW		10	20	
		GREEN		10	20	
$V_R$		ALL	5			V $I_R = 100$ $\mu$ A
$\lambda_{PK}$	PEAK WAVELENGTH	RED		635		nm MEASURED AT PEAK
		YELLOW		585		
		GREEN		565		
		BLUE		428		
$I_V$	LUMINOUS INTENSITY	RED	8.7	29		mcd $V_F = 5$ V
		YELLOW	3.7	12.6		
		GREEN	5.6	19		

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SCALE: DRAWING SCALE ALL DIM'S IN: INCHES (MM)	DRAWING NUMBER C-17277	REV A
TOLERANCES: UNLESS OTHERWISE SPECIFIED FRACTIONS: $\pm 1/64$ DECIMALS (.XX): $\pm .02$ DECIMALS (.XXX): $\pm .015$ DECIMALS (.XXXX): $\pm .0005$ ANGLES: $\pm 1^\circ$	TITLE 3mm LED BI-LEVEL CBI RoHS COMPLIANT	
FINISH:	MATERIAL	
FSCM 83330	Dialight 1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727	
SHEET 1 OF 1 FAMILY TABLES:		