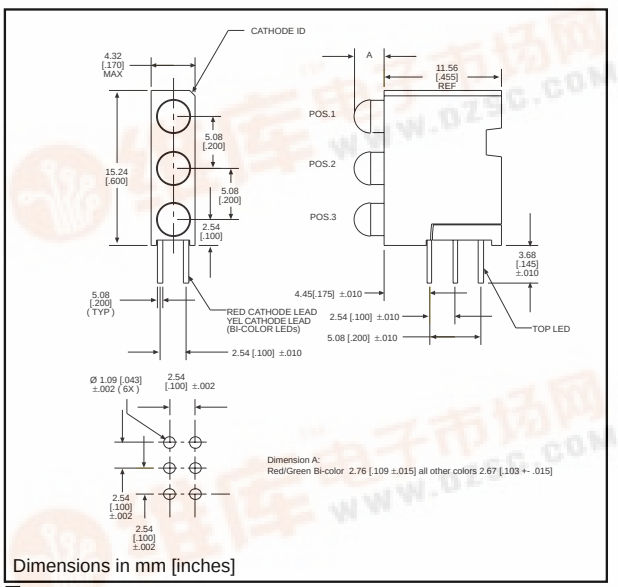
查询"564-0100-222"供应商

# 3mm
# LED CBI® Circuit Board Indicator Tri-Level

Dialight

## 564-0x00-xxx



Dimensions in mm [inches]

## Features

- Multiple CBIs form horizontal LED arrays on 4.45mm (0.175") center-lines.
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 29%
- Polymer content: PBT, 0.078 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: ±0.04 mm [±0.016]
- CBI Housing: ±0.02mm[±0.008]

## Custom Combinations

- Contact factory for information on custom color combinations

**PART NUMBER ORDERING CODE**

Series — LED Type — Top LED Position

| 5 | 6 | 4 | - | 0 | x | 0 | 0 | - | x | x | x |
|---|---|---|---|---|---|---|---|---|---|---|---|

Middle LED Position — Bottom LED Position

Color = 0) Blank 1) Red or Red/Green Bi-color 2) Green 3) Yellow 4) Yellow/Green Bi-color 7) Orange 8) Blue[3]

| PART NO. | COLOR* |
|---|---|
| **HIGH EFFICIENCY - LED TYPE 01** | |
| 564-0100-111 | Red-Red-Red |
| 564-0100-132 | Red-Yellow-Green |
| 564-0100-222 | Green-Green-Green |
| 564-0100-777 | Orange-Orange-Orange |
| 564-0100-999 | Blue-Blue-Blue NEW |
| **LOW CURRENT - LED TYPE 02** | |
| 564-0200-111 | Red-Red-Red |
| 564-0200-132 | Red-Yellow-Green |
| 564-0200-222 | Green-Green-Green |
| **INTEGRAL RESISTOR, 5 VOLTS - LED TYPE 03** | |
| 564-0300-111 | Red-Red-Red |
| 564-0300-132 | Red-Yellow-Green |
| 564-0300-222 | Green-Green-Green |
| **BI-COLOR - LED TYPE 07** | |
| 564-0700-111 | Red/Green-Red/Green-Red/Green |
| 564-0700-444 | Yellow/Green-Yellow/Green-Yellow/Green |

* Top-Middle-Bottom LED

3 ATTENTION
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

4



找PDF 维库一下 pdf.dzsc.com

查询"564-0100-222"供应商



## Typical Operating Characteristics ($T_A$=25°C)

*See LED data sheet for additional information*
*See Pages 4-73 and 4-74 for 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 $2\Theta_{½}$ | LED Data sheet | Page # |
|---|---|---|---|---|---|---|---|---|
| 564-0100-xxx | Red | 635 | 10 | 2* | 10 | 60° | 521-9216 | 4-58 |
| | Green | 565 | 12.6 | 2.1* | 10 | 60° | 521-9210 | 4-58 |
| | Yellow | 585 | 10 | 2.1* | 10 | 60° | 521-9211 | 4-58 |
| | Orange | 600 | 7 | 2.2 | 10 | 60° | 521-9498 | 4-58 |
| | Blue | 428 | 12 | 3.5 | 10 | 70° | 521-9831 | 4-57 |

** $I_F$ = 20mA*

### LOW CURRENT

| Part Number | Color | Peak Wavelength nm | $I_V$ mcd | $V_F$ Volts | Test Current (mA) | Viewing Angle $2\Theta_{½}$ | LED Data sheet | Page # |
|---|---|---|---|---|---|---|---|---|
| 564-0200-xxx | Red | 635 | 1.6 | 1.7 | 2 | 60° | 521-9324 | 4-60 |
| | Green | 565 | 1.6 | 1.9 | 2 | 60° | 521-9326 | 4-60 |
| | 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 $2\Theta_{½}$ | LED Data sheet | Page # |
|---|---|---|---|---|---|---|---|---|
| 564-0300-xxx | Red | 635 | 29 | 5 | 10 | 60° | 521-9215 | 4-59 |
| | Green | 565 | 19 | 5 | 10 | 60° | 521-9323 | 4-59 |
| | 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 $2\Theta_{½}$ | LED Data sheet | Page # |
|---|---|---|---|---|---|---|---|---|
| 564-0700-111 | Red/Green | 635/565 | 4.7/10 | 2/2.1 | 10 | 50° | 521-9459 | 4-63 |
| 564-0700-444 | Yellow/Green | 585/565 | 4.3/6.3 | 2.1*/2.1* | 10 | 80° | 521-9478 | 4-62 |

** $I_F$ = 20mA*

Dialight

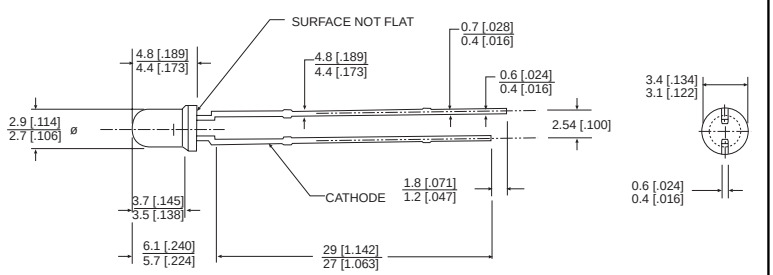
查询"564-0100-222"供应商

NEW

# 3mm Discrete LED
## Tinted, Diffused

Dialight

# 521-9831




Dimensions in mm [inches]

| PART NO. | COLOR |
|---|---|
| 521-9831 | Blue[3] |

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

[3] ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE
DEVICES

4

| **ABSOLUTE MAXIMUM RATINGS** ($T_A$=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 |

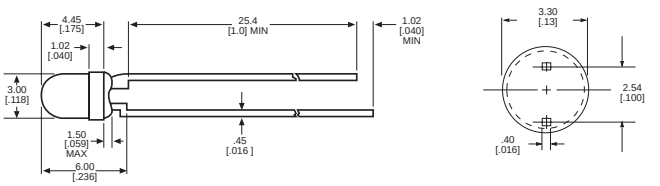
*Solder Adherence per MIL-STD-202E, Method 208C*

| **OPERATING CHARACTERISTICS** ($T_A$=25°C) | | Blue -9831 |
|---|---|---|
| Luminous Intensity (mcd) $I_F$=10mA | Min. | 6.3 |
| | Typical | 12 |
| Peak Wavelength (nm) λ Peak | Typical | 428 |
| Viewing Angle (2Θ½) | Typical | 70° |
| Forward Voltage (V) $I_F$=10mA | Typical | 3.5 |
| | Max. | 4.2 |
| Reverse Voltage (V) IR=10µA | Min. | 3 |

*Θ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity*

查询"564-9100-229"供应商

# 3mm Discrete LED
## High Efficiency Diffused
## 521-9210, -9211, -9216, -9498, -9636




short lead cathode all colors except 521-9636 Red.
For 521-9636 Red, short lead is anode.

Dimensions in mm [inches]

| PART NO. | COLOR |
|---|---|
| 521-9210 | Green |
| 521-9211 | Yellow |
| 521-9216 | Red |
| 521-9498 | Orange |
| 521-9636 | Red |

NEW

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

| **ABSOLUTE MAXIMUM RATINGS** ($T_A$=25°C) | Green -9210 | Yellow -9211 | Red -9216 | Orange -9498 | Red -9636 |
|---|---|---|---|---|---|
| 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[1] |
| 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*

| **OPERATING CHARACTERISTICS** ($T_A$=25°C) | | Green -9210 | Yellow -9211 | Red -9216 | Orange -9498 | Red -9636 |
|---|---|---|---|---|---|---|
| Luminous Intensity (mcd) | Min. | 4.7 | 7.4 | 7.4 | 3.4 | 8.7[1] |
| $I_F$=10mA [1] $I_F$=20mA | Typical | 12.6 | 10 | 10 | 7 | 48[1] |
| Peak Wavelength (nm) λ Peak | Typical | 565 | 585 | 635 | 600 | 660 |
| Viewing Angle (2Θ ½) | Typical | 60° | 60° | 60° | 60° | 60° |
| Forward Voltage (V) | Typical | 2.1[1] | 2.1[1] | 2[1] | 2.2 | 1.8[1] |
| $I_F$=10mA [1] $I_F$=20mA | Max. | 2.8[1] | 2.8[1] | 2.8[1] | 3 | 2.4[1] |
| Reverse Voltage (V), $I_R$=100µA | Max. | 5 | 5 | 5 | 5 | 4 |

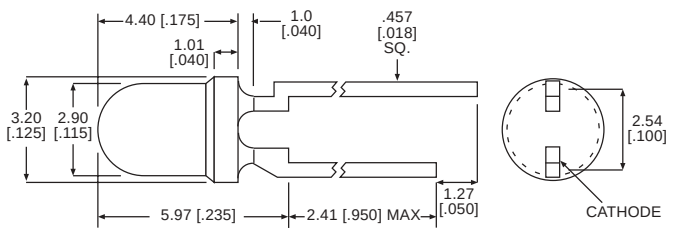
*Θ ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity*

查询"564-0100-222"供应商

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

Dialight

# 521-9215, -9322, -9323




Dimensions in mm [inches]

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

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

| **ABSOLUTE MAXIMUM RATINGS** ($T_A$=25°C) | Red -9215 | Yellow -9322 | Green -9323 |
|---|---|---|---|
| Forward Voltage (V) | 7.5 | 7.5 | 7.5 |
| Derating (V/°C) *From 50°C* | .086 | .086 | .071 |
| Operating Temperature (°C) | -40/+85 | -40/+85 | -20/+85 |
| 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 -9215 | Yellow -9322 | Green -9323 |
|---|---|---|---|---|
| Luminous Intensity (mcd) | Min. | 8.7 | 3.7 | 5.6 |
| $V_F$=5V | Typical | 29 | 12.6 | 19 |
| Peak Wavelength (nm) λ Peak | Typical | 635 | 585 | 565 |
| Viewing Angle (2Θ½) | Typical | 60° | 60° | 60° |
| Forward Current (mA) | Typical | 10 | 10 | 10 |
| $V_F$=5V | Max. | 20 | 20 | 20 |
| Reverse Voltage (V), $I_R$=100µA | Min. | 5 | 5 | 5 |

*Θ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity*

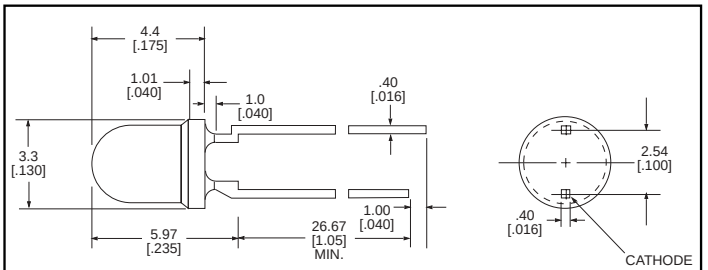
4

查询"564-9100-2238"供应商

# 3mm Discrete LED
## Low Current
## Diffused

Dialight

# 521-9324, -9325, -9326




Dimensions in mm [inches]

| PART NO. | COLOR |
|---|---|
| 521-9324 | Red |
| 521-9325 | Yellow |
| 521-9326 | Green |

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

| **ABSOLUTE MAXIMUM RATINGS** ($T_A$=25°C) | Red -9324 | Yellow -9325 | Green -9326 |
|---|---|---|---|
| Power Dissipation (mW) | 20 | 20 | 20 |
| Forward Current (mA) | 7 | 7 | 7 |
| Derating (mA/°C) *From 90°C* | .7 | .7 | .7 |
| Peak Current (mA) *Pulse width = 10 µs* | 500 | 500 | 500 |
| 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 -9324 | Yellow -9325 | Green -9326 |
|---|---|---|---|---|
| Luminous Intensity (mcd) | Min. | 1 | 1 | 1 |
| $I_F$=2mA | Typical | 1.6 | 1.6 | 1.6 |
| Peak Wavelength (nm) λ Peak | Typical | 635 | 585 | 565 |
| Viewing Angle ($2\Theta^{1/2}$) | Typical | 60° | 60° | 60° |
| Forward Voltage (V) | Typical | 1.7 | 1.8 | 1.9 |
| $I_F$=2mA | Max. | 2.2 | 2.7 | 2.2 |
| Reverse Voltage (V), $I_R$=50µA | Min. | 5 | 5 | 5 |

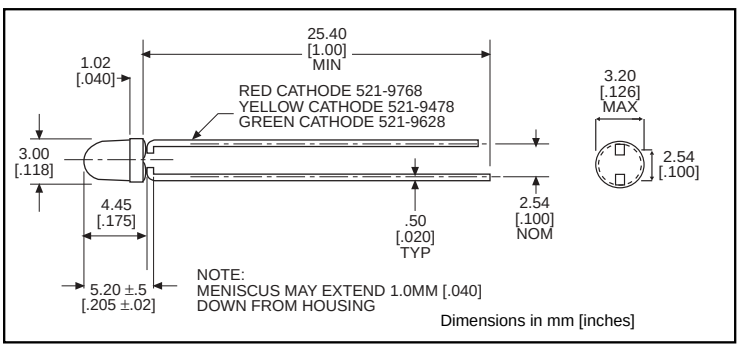
*$\Theta^{1/2}$ is the off axis angle at which the luminous intensity is half the axial luminous intensity*

查询"564-000-222"供应商

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

Dialight

# 521-9478, -9628, -9768




| PART NO. | COLOR |
|---|---|
| 521-9478 | Yellow/Green |
| 521-9628 | Red/Green |
| 521-9768 | Red/Yellow |

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

| **ABSOLUTE MAXIMUM RATINGS** ($T_A$=25°C) | Yellow/Green **-9478** | Red/Green **-9628** | Red/Yellow **-9768** |
|---|---|---|---|
| Power Dissipation (mW) | 60/100 | 140/100 | 100/60 |
| Forward Current (mA)<br>Derating (mA/°C) *From 25°C* [1] *From 50°C* | 20/30<br>.25[1]/.40[1] | 40/30<br>.5/.4 | 30/20<br>.4[1]/.25[1] |
| Peak Current (mA)<br>*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*

| **OPERATING CHARACTERISTICS** ($T_A$=25°C) | | Yellow/Green **-9478** | Red/Green **-9628** | Red/Yellow **-9768** |
|---|---|---|---|---|
| Luminous Intensity (mcd)<br>$I_F$=10mA * $I_F$=20mA | Min.<br>Typical | 2.5/2.5<br>4.3/6.3 | 3.7*/1.1*<br>12.6*/3.7* | 1.7*/1.7*<br>5.6*/5.6* |
| Peak Wavelength (nm)<br>λ Peak | Typical | 585/565 | 660/565 | 630/585 |
| Viewing Angle (2Θ ½) | Typical | 80° | 200° | 80° |
| Forward Voltage (V)<br>$I_F$=20mA | Typical<br>Max. | 2.1/2.1<br>2.8/2.8 | 1.8/2.1<br>2.4/2.8 | 2/2.1<br>2.8/2.8 |
| Reverse Voltage (V) $I_R$=100ua | Min. | 5 | 5 | 5 |

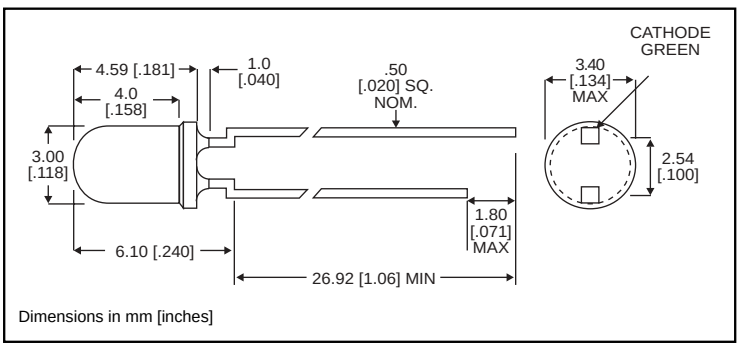
*Θ ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity*

查询"564-0100-202"供应商

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

Dialight

# 521-9459




Dimensions in mm [inches]

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

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

4

| **ABSOLUTE MAXIMUM RATINGS** ($T_A$=25°C) | Red/Green **-9459** |
|---|---|
| Power Dissipation (mW) | 140 |
| Forward Current (mA) | 45 |
| Derating (mA/°C) *From 25°C* | .6 |
| Peak Current (mA) *Pulse width = 10µs* | 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°C) | | Red/Green **-9459** |
|---|---|---|
| Luminous Intensity (mcd) $I_F$=10mA | Min. | 2.5/3.7 |
| | Typical | 4.7/10 |
| Peak Wavelength (nm) λ Peak | Typical | 635/565 |
| Viewing Angle (2Θ½) | Typical | 50° |
| Forward Voltage (V) $I_F$=10mA | Typical | 2/2.1 |
| | Max. | 2.8/2.8 |

*Θ½ is the off axis angle at which the luminous intensity is half the axial luminous intensity*