



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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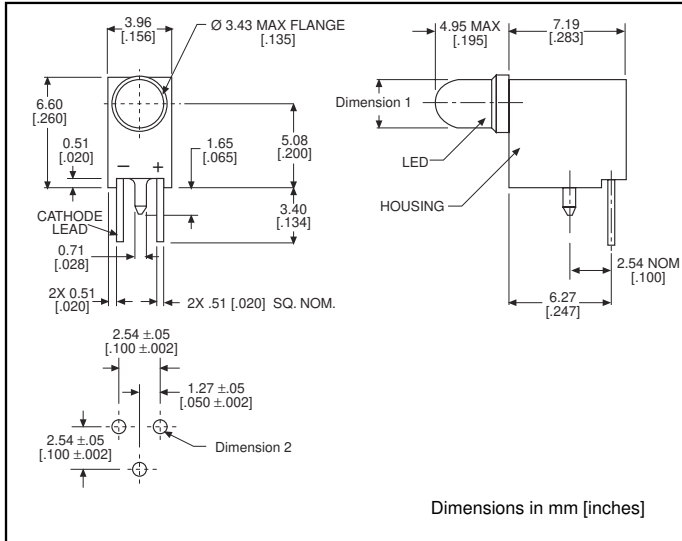
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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

Dialight

551-xx11



| PART NO. | COLOR | CHART |
|------------------------|-------------------|-------|
| HIGH EFFICIENCY | | |
| 551-0211 | Green | A |
| 551-0311 | Yellow | A |
| 551-0411 | Red | A |
| 551-0811 | Blue ³ | B |
| LOW CURRENT | | |
| 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

| | 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. |



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

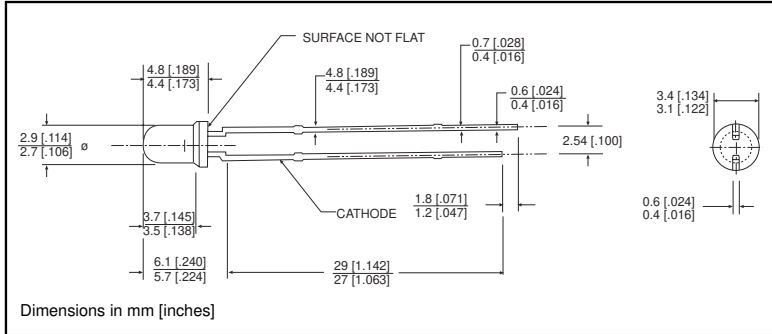
| Part Number | Color | Peak Wavelength nm | I _v mcd | V _f Volts | Test Current (mA) | Viewing Angle 2Θ _{1/2} | LED Data sheet | Page # |
|-------------|--------|--------------------|--------------------|----------------------|-------------------|---------------------------------|----------------|--------|
| 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

Dialight

521-9831



PART NO. 521-9831
COLOR Blue³

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



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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

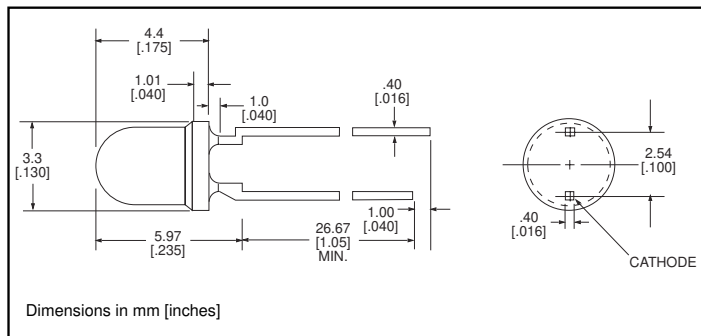
| | | |
|--|---------|-----|
| Luminous Intensity (mcd) | Min. | 6.3 |
| I _F =10mA | Typical | 12 |
| Peak Wavelength (nm) | Typical | 428 |
| λ Peak | | |
| Viewing Angle (2Θ _{1/2}) | Typical | 70° |
| Forward Voltage (V) | Typical | 3.5 |
| I _F =10mA | Max. | 4.2 |
| Reverse Voltage (V) I _R =10μA | Min. | 3 |

Θ_{1/2} 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 -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 ($T_A=25^\circ\text{C}$)

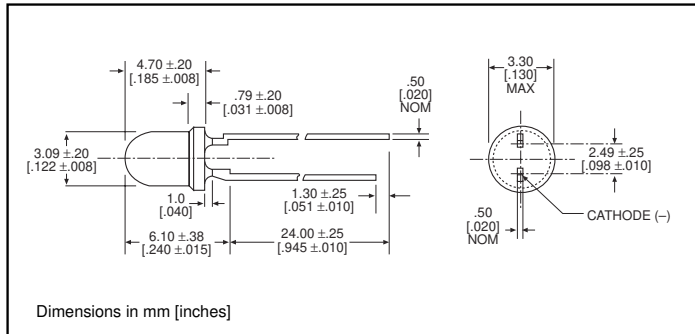
| | | Red -9324 | Yellow -9325 | Green -9326 |
|---|---------|---------------------|------------------------|-----------------------|
| Luminous Intensity (mcd) $I_F=2\text{mA}$ | Min. | 1 | 1 | 1 |
| | Typical | 1.6 | 1.6 | 1.6 |
| Peak Wavelength (nm) λ_{Peak} | Typical | 635 | 585 | 565 |
| Viewing Angle ($2\Theta_{1/2}$) | Typical | 60° | 60° | 60° |
| Forward Voltage (V) $I_F=2\text{mA}$ | 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 |

$\Theta_{1/2}$ 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 ($T_A=25^\circ\text{C}$)

| | Green -9408 | Red -9427 | Yellow -9428 |
|----------------------------|------------------------------------|---------------------|------------------------|
| 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 ($T_A=25^\circ\text{C}$)

| | | Green -9408 | Red -9427 | Yellow -9428 |
|--|---------|-----------------------|---------------------|------------------------|
| Luminous Intensity (mcd) | Min. | 5.6 | 3.6 | 2.2 |
| | Typical | 16 | 10 | 6.3 |
| Peak Wavelength (nm) | Typical | 563 | 650 | 585 |
| Viewing Angle ($2\theta^{1/2}$) | Typical | 45° | 45° | 45° |
| Forward Voltage (V) | Typical | 2.1 | 2 | 2.1 |
| | Max. | 3 | 3 | 3 |
| Reverse Voltage (V), $I_R=10\mu\text{A}$ | Min. | 3 | 3 | 3 |

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