

[查询"553-0222-300"供应商](#)

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 # |
|--------------|--------|--------------------|--------------------|----------------------|-------------------|-------------------------------|----------------|--------|
| 553-0111-300 | Red | 650 | 10 | 2 | 10 | 45° | 521-9427 | 4-64 |
| 553-0122-300 | Green | 563 | 16 | 2.1 | 10 | 45° | 521-9408 | 4-64 |
| 553-0133-300 | Yellow | 585 | 6.3 | 2.1 | 10 | 45° | 521-9428 | 4-64 |
| 553-0177-300 | Orange | 600 | 7 | 2.2 | 10 | 60° | 521-9498 | 4-58 |
| 553-0188-300 | 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 # |
|--------------|--------|--------------------|--------------------|----------------------|-------------------|-------------------------------|----------------|--------|
| 553-0211-300 | Red | 635 | 1.6 | 1.7 | 2 | 60° | 521-9324 | 4-60 |
| 553-0222-300 | Green | 565 | 1.6 | 1.9 | 2 | 60° | 521-9326 | 4-60 |
| 553-0233-300 | 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 # |
|--------------|--------|--------------------|--------------------|--------------|----------------------|-------------------------------|----------------|--------|
| 553-0311-300 | Red | 635 | 29 | 5 | 10 | 60° | 521-9215 | 4-59 |
| 553-0322-300 | Green | 565 | 19 | 5 | 10 | 60° | 521-9323 | 4-59 |
| 553-0333-300 | 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 # |
|--------------|--------------|--------------------|--------------------|----------------------|-------------------|-------------------------------|----------------|--------|
| 553-0711-300 | Red/Green | 635/565 | 4.7/10 | 2/2.1 | 10 | 50° | 521-9459 | 4-63 |
| 553-0744-300 | Yellow/Green | 585/565 | 4.3/6.3 | 2.1*/2.1* | 10 | 80° | 521-9478 | 4-62 |

* I_F = 20mA

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 # |
|--------------|--------|--------------------|--------------------|-----------------------|-------------------|-------------------------------|----------------|--------|
| 553-2211-300 | Red | 635 | 29 | 2 | 10 | 45° | 521-9432 | 4-61 |
| 553-2222-300 | Green | 565 | 50 | 2.1 | 10 | 45° | 521-9430 | 4-61 |
| 553-2233-300 | Yellow | 585 | 20 | 2.1 | 10 | 45° | 521-9431 | 4-61 |

* I_F = 20mA



3mm Discrete LED
Tinted, Diffused



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 |

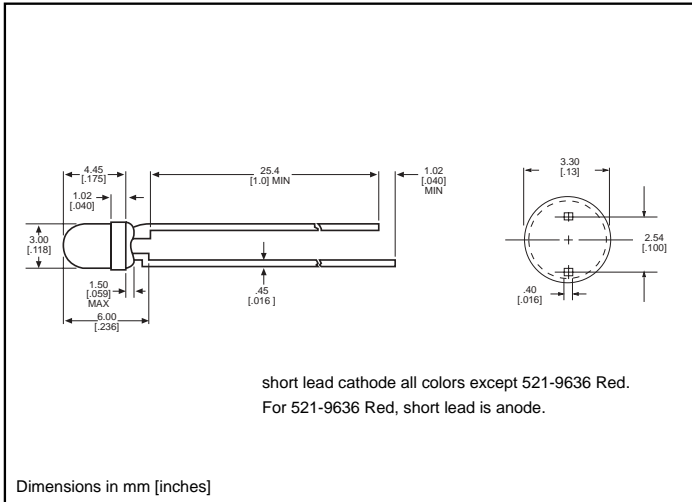
Θ_{1/2} is the off axis angle at which the luminous intensity is half the axial luminous intensity

3mm Discrete LED

High Efficiency
Diffused

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

Dialight



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

| ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$) | 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 ($T_A=25^\circ\text{C}$) | | 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 |
| | Typical | 12.6 | 10 | 10 | 7 | 48 ¹ |
| Peak Wavelength (nm) | Typical | 565 | 585 | 635 | 600 | 660 |
| Viewing Angle (2θ °) | Typical | 60° | 60° | 60° | 60° | 60° |
| Forward Voltage (V) | Typical | 2.1 ¹ | 2.1 ¹ | 2 ¹ | 2.2 | 1.8 ¹ |
| | Max. | 2.8 ¹ | 2.8 ¹ | 2.8 ¹ | 3 | 2.4 ¹ |
| Reverse Voltage (V), $I_R=100\mu\text{A}$ | Max. | 5 | 5 | 5 | 5 | 4 |

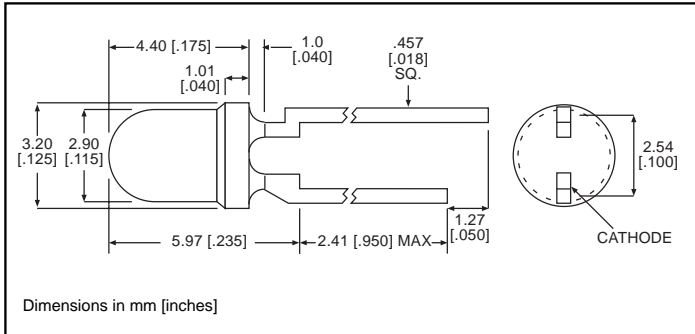
¹ θ is the off axis angle at which the luminous intensity is half the axial luminous intensity

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

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

| | Red -9215 | Yellow -9322 | Green -9323 |
|---------------------------------------------------------|----------------------------------------------------|-----------------|----------------|
| Forward Voltage (V) | 7.5 | 7.5 | 7.5 |
| Derating ($V/^\circ\text{C}$) From 50°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

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

| | | Red -9215 | Yellow -9322 | Green -9323 |
|-------------------------------------------|---------|--------------|-----------------|----------------|
| 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

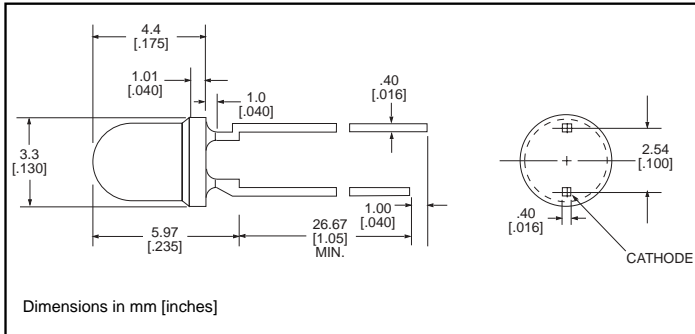
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3mm Discrete LED

Low Current
Diffused

Dialight

521-9324, -9325, -9326



| 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)

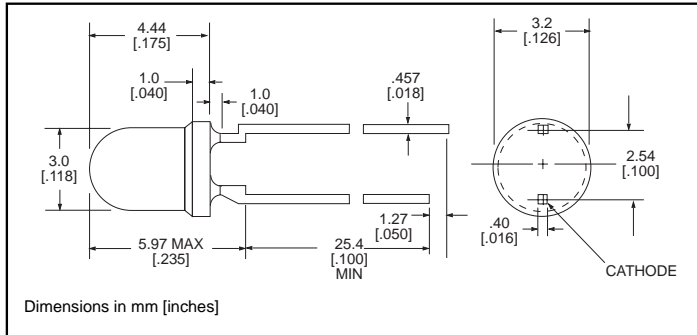
| | | Red -9324 | Yellow -9325 | Green -9326 |
|-------------------------------------------------|---------|--------------|-----------------|----------------|
| Luminous Intensity (mcd) I _F =2mA | Min. | 1 | 1 | 1 |
| | Typical | 1.6 | 1.6 | 1.6 |
| Peak Wavelength (nm) λ Peak | Typical | 635 | 585 | 565 |
| Viewing Angle (2Θ ^{1/2}) | Typical | 60° | 60° | 60° |
| Forward Voltage (V) I _F =2mA | Typical | 1.7 | 1.8 | 1.9 |
| | Max. | 2.2 | 2.7 | 2.2 |
| Reverse Voltage (V), I _R =50μA | Min. | 5 | 5 | 5 |

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

3mm Discrete LED
High Efficiency
Tinted, Non-Diffused



521-9430, -9431, -9432



| PART NO. | COLOR |
|----------|--------|
| 521-9430 | Green |
| 521-9431 | Yellow |
| 521-9432 | Red |

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

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

| | Green -9430 | Yellow -9431 | Red -9432 |
|------------------------------------------|------------------------------------|------------------------|---------------------|
| 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 -9430 | Yellow -9431 | Red -9432 |
|-----------------------------------------------|---------|-----------------------|------------------------|---------------------|
| Luminous Intensity (mcd) $I_F=10\text{mA}$ | Min. | 32 | 10 | 8.7 |
| | Typical | 50 | 20 | 29 |
| Peak Wavelength (nm) λ 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

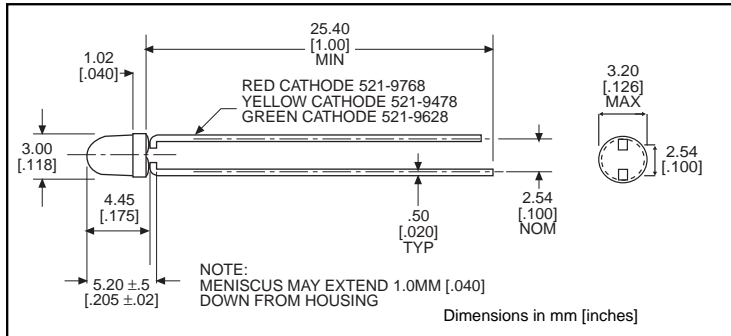
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3mm Discrete LED

Bi-Color
Non-Tinted, Diffused



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 | Red/Green | Red/Yellow |
|---------------------------------------------------|-------------------------------------|-----------|-----------------------------------|
| | -9478 | -9628 | -9768 |
| Power Dissipation (mW) | 60/100 | 140/100 | 100/60 |
| Forward Current (mA) | 20/30 | 40/30 | 30/20 |
| Derating (mA/°C) From 25°C ¹ From 50°C | .25 ¹ /.40 ¹ | .5/.4 | .4 ¹ /.25 ¹ |
| 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

| OPERATING CHARACTERISTICS (T _A =25°C) | | Yellow/Green | Red/Green | Red/Yellow |
|--------------------------------------------------|---------|--------------|------------|------------|
| | | -9478 | -9628 | -9768 |
| 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 |
| Viewing Angle (2θ ^½) | 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) | Min. | 5 | 5 | 5 |

θ^½ is the off axis angle at which the luminous intensity is half the axial luminous intensity

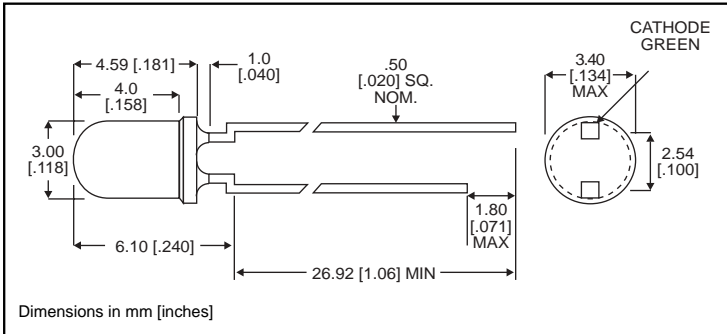
查询:551-0272-3901 供应商

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°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. Typical | 2.5/3.7 4.7/10 |
| Peak Wavelength (nm) λ Peak | Typical | 635/565 |
| Viewing Angle (2θ _{1/2}) | Typical | 50° |
| Forward Voltage (V) I _F =10mA | Typical Max. | 2/2.1 2.8/2.8 |

θ_{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) <i>From 50°C</i> | .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