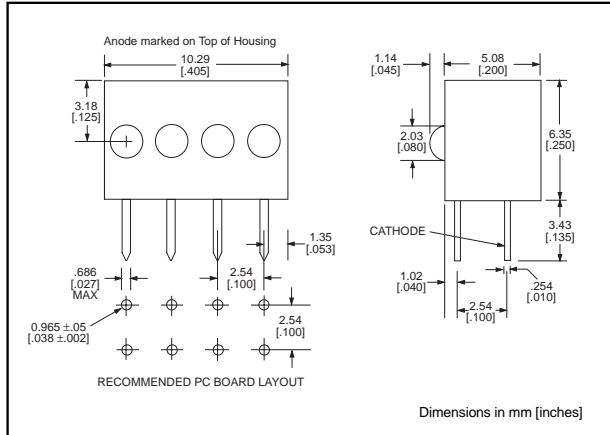


2mm LED CBI® Circuit Board Indicator Quad

Dialight

555-4xxx



PART NO.

COLOR

GENERAL PURPOSE

555-4001
555-4301
555-4401

Red
Green
Yellow

INTEGRAL RESISTOR, 5 VOLTS

555-4003
555-4007
555-4009
555-4303
555-4403

Red
Red
Red
Green
Yellow

Features

- Multiple CBIs form horizontal LED arrays on 2.54mm (0.100") center-lines
- High Contrast, UL 94 V-0 rated, black housing
- Oxygen index: 31.5%
- Polymer content: PBT, 0.280 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
- Compatible with: 555-2xxx Single Block

Custom Combinations

- Contact factory for information on custom color combinations

Tolerance note: As noted, otherwise:

- LED Protrusion: ± 0.04 mm [± 0.016]
- CBI Housing: ± 0.02 mm [± 0.008]

Typical Operating Characteristics (T_A = 25°C)

See LED data sheet for additional information

GENERAL PURPOSE

See Page 3-17 and 3-18 for Reference Only LED Drive Circuit Examples

See Page 3-19 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 # |
|-------------|--------|--------------------|--------------------|----------------------|-------------------|---------------------------------|----------------|--------|
| 555-4001 | Red | 650 | 1.2 | 1.6 | 20 | 40° | 2ND-9412 | 3-14 |
| 555-4301 | Green | 565 | 1 | 2.4 | 20 | 40° | 2ND-9414 | 3-14 |
| 555-4401 | Yellow | 583 | 2 | 2.2 | 20 | 40° | 2ND-9416 | 3-14 |

INTEGRAL RESISTOR, 5 VOLTS

| Part Number | Color | Peak Wavelength nm | I _v mcd | I _F mA | Test Voltage | Viewing Angle 2θ _{1/2} | LED Data sheet | Page # |
|-------------|--------|--------------------|--------------------|-------------------|--------------|---------------------------------|----------------|--------|
| 555-4003 | Red | 650 | 1.9 | 6 | 5 | 40° | 2RD-9614 | 3-15 |
| 555-4007 | Red | 650 | .9 | 3 | 5 | 40° | 2RD-9613 | 3-15 |
| 555-4009 | Red | 650 | .6 | 1 | 5 | 40° | 2RD-9618 | 3-15 |
| 555-4303 | Green | 565 | 2.5 | 4.7 | 5 | 40° | 2RD-9615 | 3-15 |
| 555-4403 | Yellow | 583 | 2.1 | 4.7 | 5 | 40° | 2RD-9616 | 3-15 |

2mm
General Purpose
Diffused

Dialight

2ND-xxxx

*** NOT A VALID PART
NUMBER. THIS SHEET IS FOR
REFERENCE ONLY.**

| <u>TYPE</u> | <u>COLOR</u> |
|-------------|--------------|
| 2ND-9412* | Red |
| 2ND-9414* | Green |
| 2ND-9416* | Yellow |

| ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$) | Red -9412 | Green -9414 | Yellow -9416 |
|--|--|-----------------------|------------------------|
| Power Dissipation (mW) | 80 | 80 | 80 |
| Derating (mW/ $^\circ\text{C}$) From 25 $^\circ\text{C}$ | 1.1 | 1.1 | 1.1 |
| Forward Current (mA) | 40 | 25 | 25 |
| Peak Current (mA) <i>Pulse width = 1 μs</i> | 250 | 250 | 250 |
| 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 | | |

| OPERATING CHARACTERISTICS ($T_A=25^\circ\text{C}$) | | Red -9412 | Green -9414 | Yellow -9416 |
|---|---------|---------------------|-----------------------|------------------------|
| Luminous Intensity (mcd) $I_F=20\text{mA}$ | Min. | 1 | .5 | .6 |
| | Typical | 1.2 | 1 | 2 |
| Peak Wavelength (nm) λ_{Peak} | Typical | 650 | 565 | 583 |
| Viewing Angle ($2\theta_{1/2}$) | Typical | 40 $^\circ$ | 40 $^\circ$ | 40 $^\circ$ |
| Forward Voltage (V) $I_F=20\text{mA}$ | Typical | 1.6 | 2.4 | 2.2 |
| | Max. | 2 | 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

2mm
Integral Resistor, 5 Volts
Diffused



2RD-9613 thru 2RD-9618

*** NOT A VALID PART NUMBER. THIS SHEET IS FOR REFERENCE ONLY.**

| TYPE | COLOR |
|-----------|--------|
| 2RD-9613* | Red |
| 2RD-9614* | Red |
| 2RD-9615* | Green |
| 2RD-9616* | Yellow |
| 2RD-9618* | Red |

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| ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$) | Red -9613 | Red -9614 | Green -9615 | Yellow -9616 | Red -9618 |
|--|--|---------------------|-----------------------|------------------------|---------------------|
| Forward Voltage (V) | 6 | 6 | 6 | 6 | 6 |
| Operating Temperature ($^\circ\text{C}$) | -55/+100 | -55/+100 | -55/+100 | -55/+100 | -55/+100 |
| Storage Temperature ($^\circ\text{C}$) | -55/+100 | -55/+100 | -55/+100 | -55/+100 | -55/+100 |
| Soldering Temperature | 260 $^\circ\text{C}$, 5 seconds, 1.6 mm from case | | | | |

| OPERATING CHARACTERISTICS ($T_A=25^\circ\text{C}$) | - | Red 9613 | Red -9614 | Green -9615 | Yellow -9616 | Red -9618 |
|---|---------|--------------------|---------------------|-----------------------|------------------------|---------------------|
| Luminous Intensity (mcd) | Min. | .4 | .8 | .8 | 1.3 | .3 |
| | Typical | .9 | 1.9 | 2.5 | 2.1 | .6 |
| Peak Wavelength (nm) | Typical | 650 | 650 | 565 | 583 | 650 |
| λ Peak | | | | | | |
| Viewing Angle ($2\theta_{1/2}$) | Typical | 40 $^\circ$ | 40 $^\circ$ | 40 $^\circ$ | 40 $^\circ$ | 40 $^\circ$ |
| Forward Current (mA) | Typical | 3 | 6 | 4.7 | 4.7 | 1 |
| | Max. | 4 | 8 | 6.7 | 6.7 | 2.6 |
| Reverse Voltage (V), $I_R=100\mu\text{A}$ | Min. | 6 | 6 | 6 | 6 | 6 |