



## 592 SERIES

3mm Bi-level Prism® CBI®

Surface Mount LED

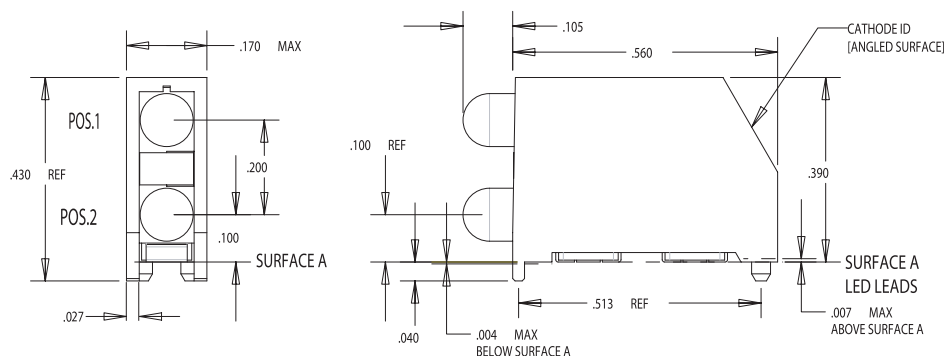
BRIGHT SINGLE COLOR



### FEATURES / BENEFITS

- ▲ Available as a Lead (Pb) Free product - RoHS Compliant.
- ▲ Incorporates latest LED technology, specifically designed for surface mounting.
- ▲ Compatible with automatic placement equipment.
- ▲ Compatible with surface mount reflow soldering processes.
- ▲ Black housing enhances contrast ratio.
- ▲ Housing material meet UL-94V-0 flammability ratings.
- ▲ Patented Bi-level design provides increased indication without increased space.
- ▲ Illumination areas compatible with industry standard 3mm through-hole Bi-level Circuit Board Indicators.
- ▲ Packaged in moisture barrier bags for dry packaging per IPC/JEDEC J-STD-033.
- ▲ Helps to eliminate mixed technology pc board processing.

### SPECIFICATIONS



++ SINGLE COLOR LED SHOWN ++

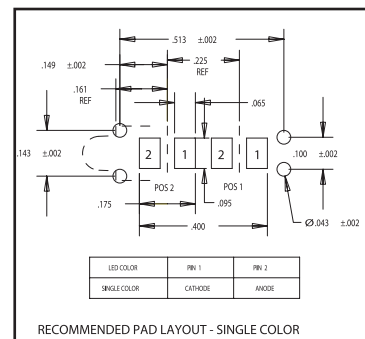
#### PART NUMBER CODE\*

| SERIES                                                             | Position 1 | Package option |
|--------------------------------------------------------------------|------------|----------------|
| 592                                                                | 2X 2X      | 0XX            |
| Position 2                                                         |            |                |
| Color = 21) AlGaAs Red, 22) Green<br>24) AlInGaP Yellow, 00) blank |            |                |
| Package Size Options<br>-002 = 10 piece strip -013 = 13" reel dia. |            |                |

Note: Custom color combinations available upon request.  
Check with factory for details.

| PART NUMBER * | COLOR COMBO                   |
|---------------|-------------------------------|
| 592-2121-0XX  | AlGaAs Red/AlGaAs Red         |
| 592-2222-0XX  | GREEN/GREEN                   |
| 592-2727-0XX  | AlInGaP Yellow/AlInGaP Yellow |

\* Part Number with "F" suffix ending is a Lead (Pb) Free Product - RoHS Compliant.



RECOMMENDED PAD LAYOUT - SINGLE COLOR



**Dialight Corporation**

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MDEF592D001\_B



## 3mm Bi-level Prism® CBI® Surface Mount LED

### ABSOLUTE MAXIMUM RATINGS (TA= 25°C)

| Parameter                                              | 21                                                    | 22           | 27             |
|--------------------------------------------------------|-------------------------------------------------------|--------------|----------------|
| COLOR                                                  | AlGaAs Red                                            | Green        | AlInGaP Yellow |
| POWER DISSIPATION<br>(derate linearly from 25°C mW/°C) | 100mW<br>0.8                                          | 100mW<br>0.6 | 100mW<br>0.6   |
| FORWARD DC CURRENT                                     | 40mW                                                  | 30mW         | 50mW           |
| PEAK FORWARD CURRENT (10 µsec)                         | 200mW                                                 | 120mW        | 160mW          |
| OPERATING TEMPERATURE                                  | -55°C to +100°C                                       |              |                |
| STORAGE TEMPERATURE                                    | -55°C to +100°C                                       |              |                |
| SOLDERING TEMPERATURES<br>CONVECTION IR<br>VAPOR PHASE | 235°C Peak, above 185°C for 90 sec., 215°C for 3 min. |              |                |

### OPERATING CHARACTERISTICS (TA= 25°C)

| Parameters                 | Part No. | Color          | Min | Typ  | Max | Units | Test Cond. |
|----------------------------|----------|----------------|-----|------|-----|-------|------------|
| FORWARD VOLTAGE<br>VF      | 21       | AlGaAs Red     |     | 1.8  | 2.4 | V     | IF=10mA    |
|                            | 22       | Green          |     | 2.1  | 2.6 |       |            |
|                            | 27       | AlInGaP Yellow |     | 2    | 2.4 |       |            |
| REVERSE VOLTAGE<br>VR      | 21       | AlGaAs Red     | 5   |      |     | V     | IF=10µA    |
|                            | 22       | Green          | 5   |      |     |       |            |
|                            | 27       | AlInGaP Yellow | 5   |      |     |       |            |
| DOMINANT WAVELENGTH<br>Dom | 21       | AlGaAs Red     |     | 638  |     | nm    |            |
|                            | 22       | Green          |     | 569  |     |       |            |
|                            | 27       | AlInGaP Yellow |     | 595  |     |       |            |
| LUMINOUS INTENSITY<br>Iv   | 21       | AlGaAs Red     |     | 23.9 |     | mcd   | IF=10mA    |
|                            | 22       | Green          |     | 9.1  |     |       |            |
|                            | 27       | AlInGaP Yellow |     | 33.6 |     |       |            |
| VIEWING ANGLE<br>(2θ 1/2)  | 21       | AlGaAs Red     |     |      |     | deg.  |            |
|                            | 22       | Green          |     |      |     |       |            |
|                            | 27       | AlInGaP Yellow |     |      |     |       |            |

DIALIGHT RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME IN ORDER TO SUPPLY THE BEST PRODUCT POSSIBLE.



A4703



ISO 9001

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