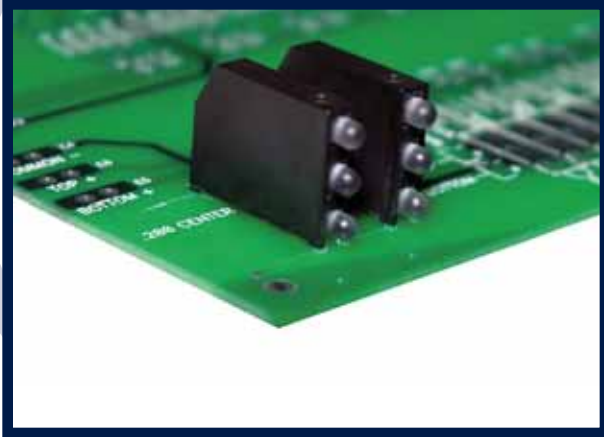




# 593 SERIES

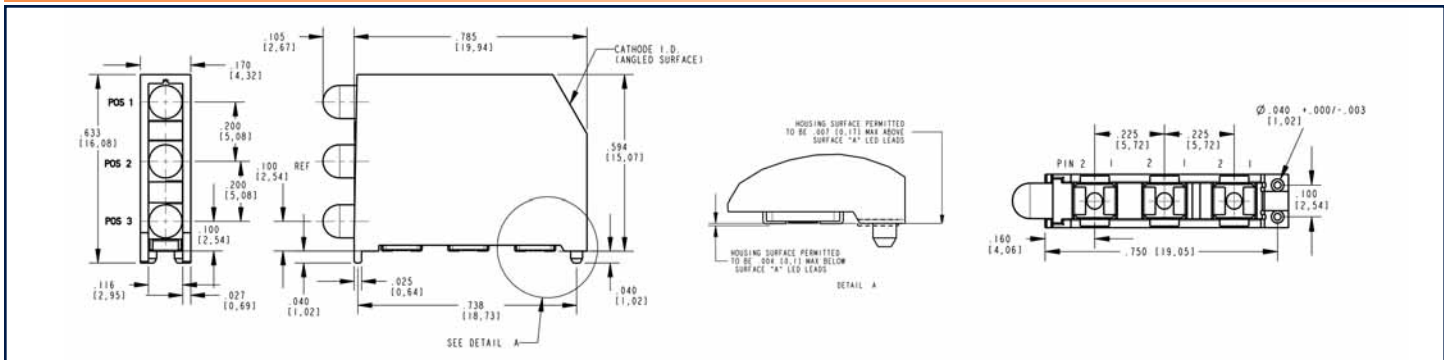
**3mm Tri-level Prism® CBI®  
Surface Mount LED  
BRIGHT SINGLE COLOR**



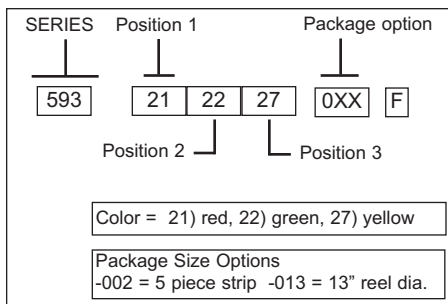
## FEATURES / BENEFITS

- ▲ 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 Tri-level design provides increased indication without increased space
- ▲ Illumination areas compatible with industry standard 3mm through-hole Tri-level Circuit Board Indicators
- ▲ Packaged in moisture barrier bags for dry packaging per IPC/JEDEC J-STD-033, moisture sensitivity level 2
- ▲ Helps to eliminate mixed technology pc board processing

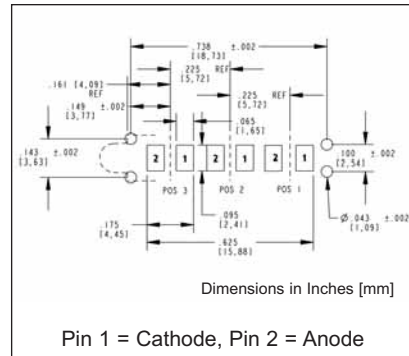
## SPECIFICATIONS



### PART NUMBER CODE\*



| PART NUMBER     | COLOR COMBO                                  |
|-----------------|--|
| 593-212121-0XXF | ALGaAS RED/ALGaAS RED/ALGaAS RED             |
| 593-222222-0XXF | GREEN/GREEN/GREEN                            |
| 593-272727-0XXF | AlInGaP Yellow/AlInGaP Yellow/AlInGaP Yellow |



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

### Dialight Corporation

1501 Route 34 South • Farmingdale, NJ 07727 USA

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MDEF593D001\_A



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

| PARAMETER  | 21                                 | 22              | 27                      |
|--|------------------------------------|-----------------|-------------------------|
| COLOR  | AlGaAs Red                         | Green           | AllnGaP Yellow          |
| POWER DISSIPATION<br>(derate linearly from 60°C mA°C)                | 90mW<br>0.75                       | 95mW<br>0.75    | 80mW<br>(From 85°C) 1.0 |
| FORWARD DC CURRENT   | 30mA                               | 30mA            | 30mA                    |
| PEAK FORWARD CURRENT (µsec)  | 0.5 amp                            | 0.5 amp         | 0.2 amp                 |
| OPERATING TEMPERATURE  | -40°C To +100°C                    | -40°C To +100°C | -40°C To +100°C         |
| STORAGE TEMPERATURE  | -40°C To +100°C                    | -40°C To +100°C | -40°C To +100°C         |
| SOLDERING TEMPERATURES<br>IR REFLOW FOR LEAD<br>FREE SOLDERING, RoHS | 260°C (+0°C / -5°C) For 30 Seconds |                 |                         |

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

| PARAMETER                            | PART NO. | COLOR          | MIN | TYP  | MAX | UNITS | TEST COND.           |
|--------------------------------------|----------|----------------|-----|------|-----|-------|----------------------|
| Forward Voltage<br>V <sub>F</sub>    | 21       | AlGaAs Red     |     | 1.75 | 2.5 | V     | I <sub>F</sub> =10mA |
|                                      | 22       | Green          |     | 2.0  | 2.5 |       |                      |
|                                      | 27       | AllnGaP Yellow | 1.9 | 2.0  | 2.4 |       |                      |
| Reverse Voltage<br>V <sub>R</sub>    | 21       | AlGaAs Red     |     | 12   |     | V     | I <sub>F</sub> =10µA |
|                                      | 22       | Green          |     | 12   |     |       |                      |
|                                      | 27       | AllnGaP Yellow |     | 12   |     |       |                      |
| Dominant Wavelength<br>Dom           | 21       | AlGaAs Red     |     | 645  |     | nm    |                      |
|                                      | 22       | Green          | 564 | 570  | 576 |       |                      |
|                                      | 27       | AllnGaP Yellow | 580 | 587  | 595 |       |                      |
| Luminous Intensity<br>I <sub>v</sub> | 21       | AlGaAs Red     | 22  | 29   | 36  | mcd   | I <sub>F</sub> =20mA |
|                                      | 22       | Green          | 9   | 16   | 22  |       |                      |
|                                      | 27       | AllnGaP Yellow | 40  | 80   | 130 |       |                      |
| Viewing Angle<br>(2θ 1/2)            | 21       | AlGaAs Red     |     | 40   |     | deg.  |                      |
|                                      | 22       | Green          |     | 40   |     |       |                      |
|                                      | 27       | AllnGaP Yellow |     | 40   |     |       |                      |

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



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