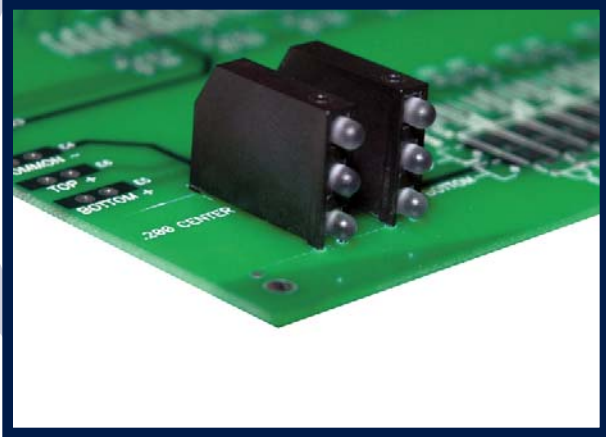




# 593 SERIES

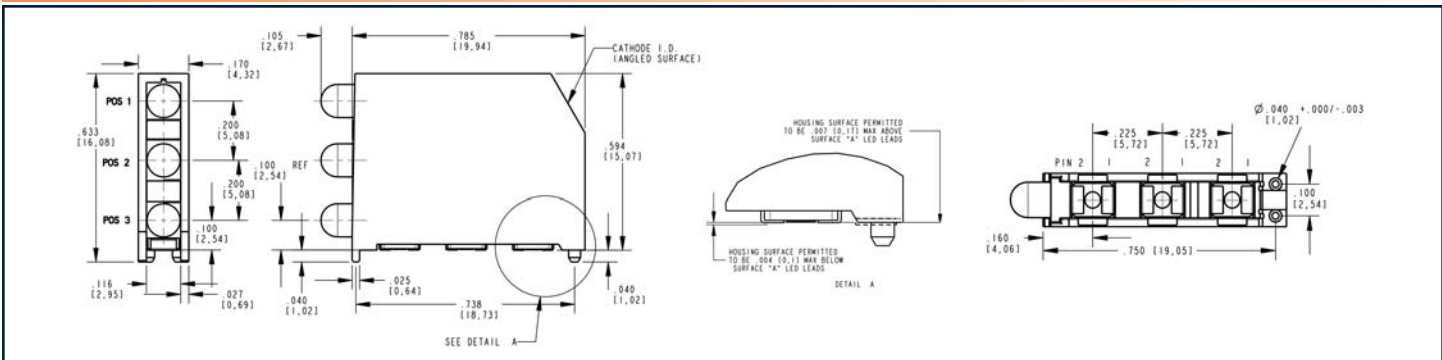
## 3mm Tri-level Prism® CBI® Surface Mount LED SINGLE COLOR



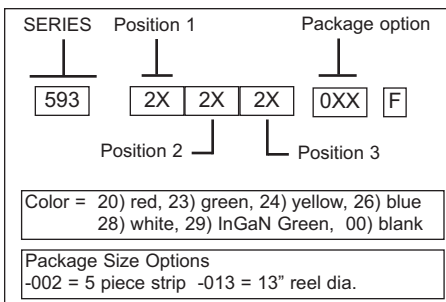
### FEATURES / BENEFITS

- ▲ 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
- ▲ Helps to eliminate mixed technology pc board processing

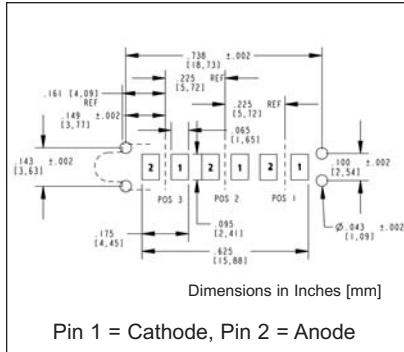
### SPECIFICATIONS



#### PART NUMBER CODE



PART NUMBER	COLOR COMBO
593-202020-0XXF	Red/Red/Red
593-232323-0XXF	Green/Green/Green
593-242424-0XXF	Yellow/Yellow/Yellow
593-262626-0XXF	Blue/Blue/Blue
593-282828-0XXF	White/White/White
593-292929-0XXF	InGaN Green/InGaN Green/InGaN Green



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

#### Dialight Corporation

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MDEF593A001\_B

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

PARAMETER	20	23	24	26	28	29
COLOR	Red	Green	Yellow	Blue	White	InGaN Green
POWER DISSIPATION (derate linearly from 60°C mA°C)	95mW 0.75	95mW 0.75	95mW 0.75	90mW 0.44 from 55°C	80mW 0.60 from 75°C	115mW 0.50 from 50°C
FORWARD DC CURRENT	30mA	30mA	30mA	20mA	20mA	30mA
PEAK FORWARD CURRENT (t≤10μs, D=0.005)	0.5 amp	0.5 amp	0.5 amp	0.2 amp	0.2 amp	100mA (t≤1ms, D=0.1)
OPERATING TEMPERATURE	-40°C To +100°C	-40°C To +100°C	-40°C To +100°C	-40°C To +100°C	-40°C To +100°C	-55°C To +100°C
STORAGE TEMPERATURE	-40°C To +100°C	-40°C To +100°C	-40°C To +100°C	-40°C To +100°C	-40°C To +100°C	-55°C To +100°C
SOLDERING TEMPERATURES IR REFLOW FOR LEAD FREE SOLDERING, RoHS	260°C (+0°C / -5°C) For 10-30 Seconds					

## OPERATING CHARACTERISTICS (TA= 25°C)

PARAMETER	PART NO.	COLOR	MIN	TYP	MAX	UNITS	TEST COND.
Forward Voltage V <sub>F</sub>	20	red		2.0	2.5	V	I <sub>F</sub> =10mA
	23	green		2.0	2.5		
	24	yellow		2.0	2.5		
	26	blue		3.5	4.2		
	28	white	2.7	3.1	3.7		
	29	InGaN green		3.4	4.05		I <sub>F</sub> = 20mA
Reverse Voltage V <sub>R</sub>	20	red	12			V	I <sub>F</sub> =10μA
	23	green	12				
	24	yellow	12				
	26	blue	5				
	28	white	5				
	29	InGaN green	5				
Dominant Wavelength Dom	20	red	622	628	634	nm	
	23	green	564	570	576		
	24	yellow	580	587	595		
	26	blue	462	465	468		
	28	white		X .33 Y .33			
	29	InGaN green	515	525	535	nm	
Luminous Intensity I <sub>v</sub>	20	red	4	6	8	mcd	I <sub>F</sub> =20mA
	23	green	7	11	16		
	24	yellow	7	11	15		
	26	blue	4	7	10		
	28	white	60	85	110		
	29	InGaN green	70	150			
Viewing Angle (2θ 1/2)	20	red		40		deg.	
	23	green		40			
	24	yellow		40			
	26	blue		40			
	28	white		40			
	29	InGaN green		40			

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

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