



591 SERIES

Prism® CBI®

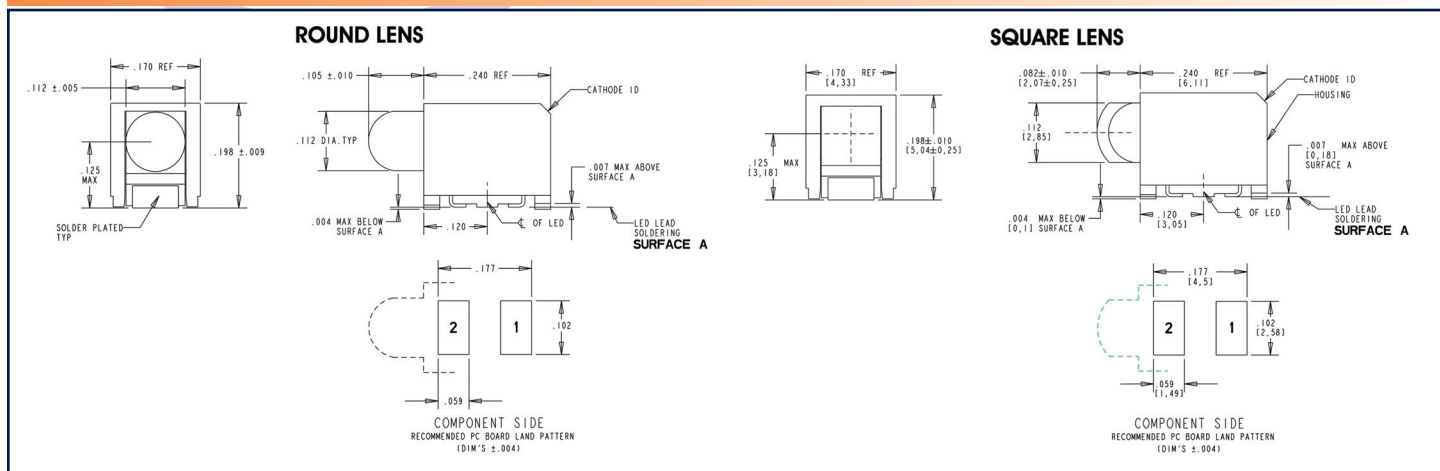
2mA Low Current Surface Mount LED
ROUND OR SQUARE LENS



FEATURES / BENEFITS

- ▲ RoHS Compliant
- ▲ Incorporates latest low current LED technology, specifically designed for surface mounting
- ▲ Compatible with automatic placement equipment
- ▲ Compatible with RoHS Compliant surface mount reflow soldering processes
- ▲ Black housing enhances contrast ratio
- ▲ Housing material meet UL-94V-0 flammability ratings
- ▲ Patented Prism design with 2mA low current LED
- ▲ 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

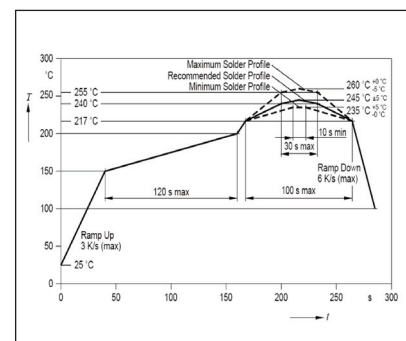
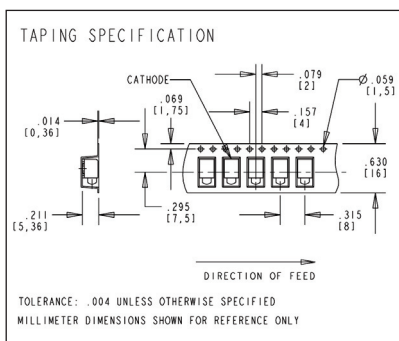
SPECIFICATIONS



PART NUMBER CODE*

SERIES	Color	Package option	Lens Type
591	2X04	X XX	F

COLOR	LENS TYPE	PACKAGING OPTIONS
0 = Red	0 = Round	02 = 20 piece strip
3 = Green		07 = 7" reel dia / 400pcs
4 = Yellow	1 = Square	13 = 13" reel dia / 1600pcs
5 = Orange		



Dialight Corporation

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MDEF591LV01_A



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2mA Low Current Surface Mount LED
ROUND OR SQUARE LENS

ABSOLUTE MAXIMUM RATINGS (TA= 25°C)

PARAMETER	20	23	24	25
COLOR	Red	Green	Yellow	AlInGaP Orange
POWER DISSIPATION	50mW	50mW	50mW	50mW
FORWARD DC CURRENT	20mA	20mA	20mA	20mA
PEAK FORWARD CURRENT (t ≤ 10 μs, D=0.005)	100mA	100mA	100mA	100mA
OPERATING TEMPERATURE	-40°C To +100°C	-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	-40°C To +100°C
SOLDERING TEMPERATURES IR REFLOW FOR LEAD 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 V_F	20	Red	1.7	1.8	2.2	V	$I_F=2mA$
	23	Green	1.7	1.8	2.2		
	24	Yellow	1.7	1.8	2.2		
	25	AlInGaP Orange	1.7	1.8	2.2		
Reverse Voltage V_R	20	Red		12		V	$I_R=10\mu A$
	23	Green		12			
	24	Yellow		12			
	25	AlInGaP Orange		12			
Dominant Wavelength λ_{Dom}	20	Red	624	630	636	nm	
	23	Green	566	570	575		
	24	Yellow	580	587	595		
	25	AlInGaP Orange	600	606	609		
Luminous Intensity I_v Round (Square) Lens	20	Red	6 / -	11 / 40 (30 / 80)	16 / -	mcd	$I_F=2mA /$ $I_F=10mA$
	23	Green	3 / -	5 / 22 (10 / 40)	8 / -		
	24	Yellow	8 / -	14 / 60 (40 / 140)	20 / -		
	25	AlInGaP Orange	9 / -	16 / 70 (55 / 150)	24 / -		
Viewing Angle (2θ 1/2) Round (Square) Lens	20	Red		50 (40)		deg.	
	23	Green		50 (40)			
	24	Yellow		50 (40)			
	25	AlInGaP Orange		50 (40)			

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