Dialight
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591 SERIES

PRISM® Surface Mount LED

3mm Square Lens

APPLICATIONS

Data center infrastructure
Telecommunication
Electronic test and measurement instruments
Automation
Medical
Wireless infrastructure

CERTIFICATIONS & RATINGS

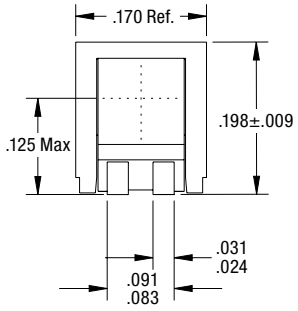
RoHS compliant

FEATURES & BENEFITS

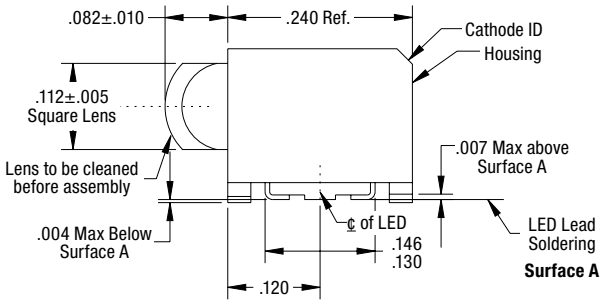
- SMT LED Technology designed to survive 260°C peak reflow temperature
- Eliminates wave soldering process
- Black, low profile PPA housing enhances the contrast ratio for better clarity
- Compatible with automatic pick-and-place equipment for reduced installation costs
- Ideal for limited space applications and board edge mounting

DIMENSIONS inches [mm]

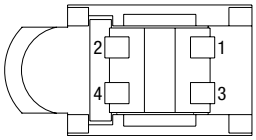
FRONT VIEW



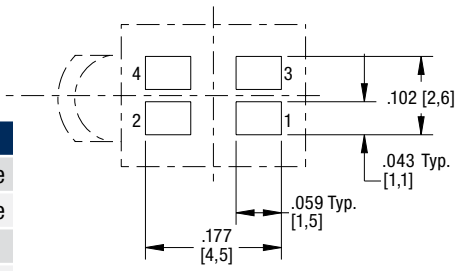
SIDE VIEW



BOTTOM VIEW



RECOMMENDED PAD LAYOUT



Component Side
Recommended PC Board Land Pattern
(DIM's ± .004)
0.1mm

MULTI-COLOR LED PIN REFERENCE

Code	LED Color	Pin 1	Pin 2	Pin 3	Pin 4
30	Red / Yellow-Green	Red Cathode	Red Anode	Yellow-Green Anode	Yellow-Green Cathode
31	Yellow / Yellow-Green	Yellow Cathode	Yellow Anode	Yellow-Green Anode	Yellow-Green Cathode
32	Red / Yellow	Red Cathode	Red Anode	Yellow Anode	Yellow Cathode
37	Red / Green / Blue	Red Cathode	Common Anode	Green Cathode	Blue Cathode
42	Red / Green / Blue	Red Cathode	Common Anode	Green Cathode	Blue Cathode

Red, yellow, green and yellow-green LEDs 2 kV HBM • Blue LEDs 500 V HBM

OPERATING CHARACTERISTICS AT 25°C AMBIENT

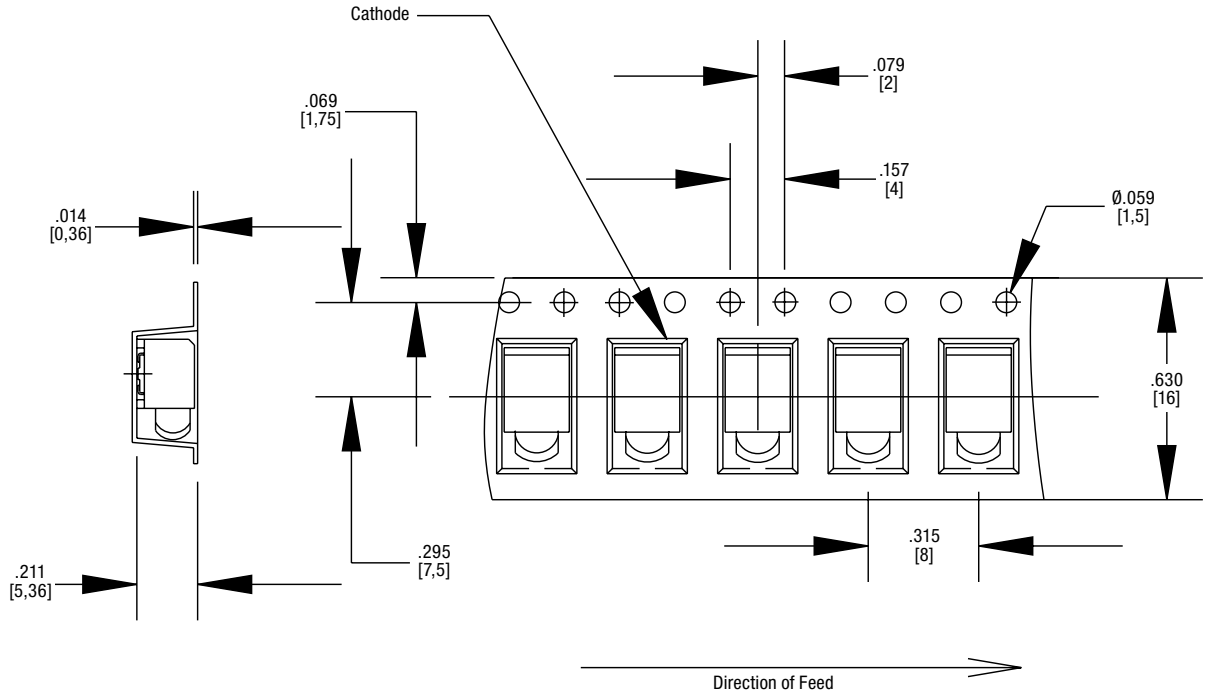
7" Reel	13" Reel	LED Color	Luminous Intensity (mcd)	Forward Voltage (V)		Dominant Wavelength (nm)	Reverse Current (µA)	MSL Rating
			Typ.	Min.	Max.	Typ.	Max.	Typ.
			IF=2mA					
591-3001-107F	591-3001-113F	Red	17	1.7	2.2	630	10	2
		Yellow-Green	13			570		
591-3101-107F	591-3101-113F	Yellow	20	1.7	2.2	587	10	2
		Yellow-Green	13			570		
			IF=20mA					
591-3703-107F	591-3703-113F	Red	350	1.8	2.4	620	10	3
		Green	1200	2.8	3.6	523		
		Blue	180	2.8	3.6	470		
591-4203-107NF	591-4203-113NF	Red	120	1.5	2.4	630	10	3
		Green	1000	2.8	3.6	525	50	
		Blue	150	2.8	3.6	470	50	

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT

	Code 30		Code 31		Code 37			Code 42			Units
	Red	Yellow-Green	Yellow	Yellow-Green	Red	Green	Blue	Red	Green	Blue	
Continuous Forward Current	15		15		30			50	30	30	mA
Reverse Voltage	12		12		5			5			V
Peak Forward Current	100		100		100			130	100	100	mA
Operating Temperature Range	-40 to +100				-40 to +85						°C
Storage Temperature Range	-40 to +100				-40 to +100						°C

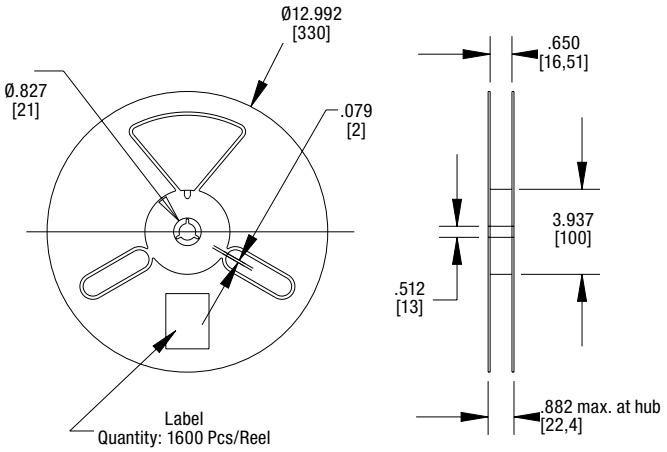
Red, yellow, green and yellow-green LEDs 2 kV HBM • Blue LEDs 500 V HBM

TAPE AND REEL SPECIFICATIONS

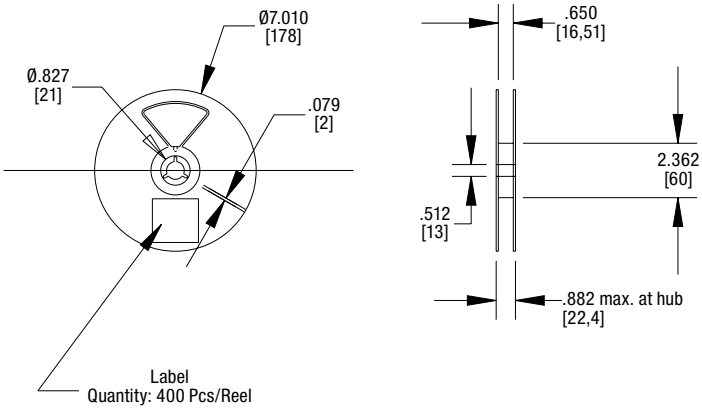


Tolerance: .004 unless otherwise specified. Millimeter dimensions shown for reference only.

13" Diameter

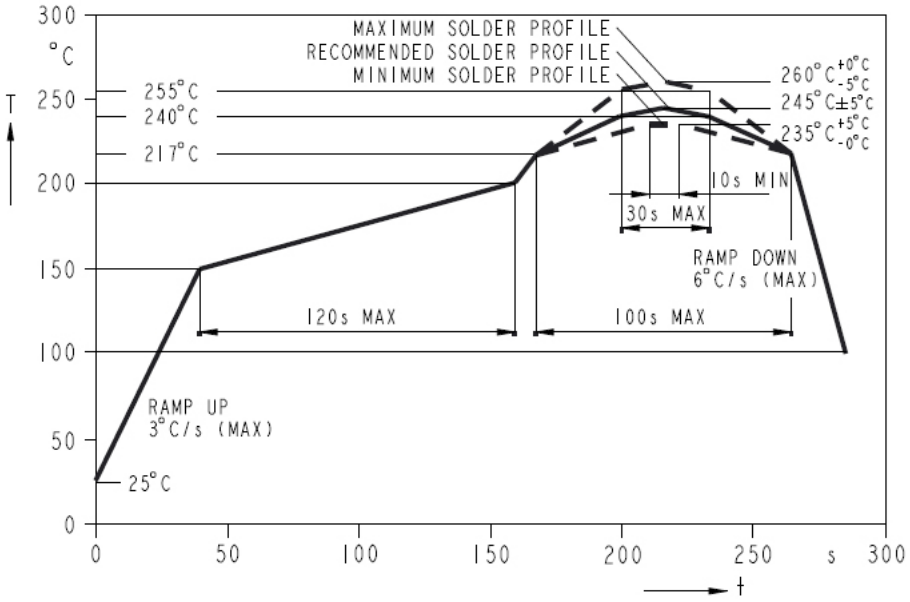


7" Diameter



REFLOW SOLDERING PROFILE:

Note: Reflow soldering should not be done more than two times.



RECOMMENDED RoHS COMPLIANT
REFLOW PROFILE

RoHS compliant

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