



**THE DATASHEET OF**  
**5990091007F**



1.6 mm x 0.8 mm x 0.7 mm



## Certifications & Ratings

- RoHS compliant

## Features & Benefits

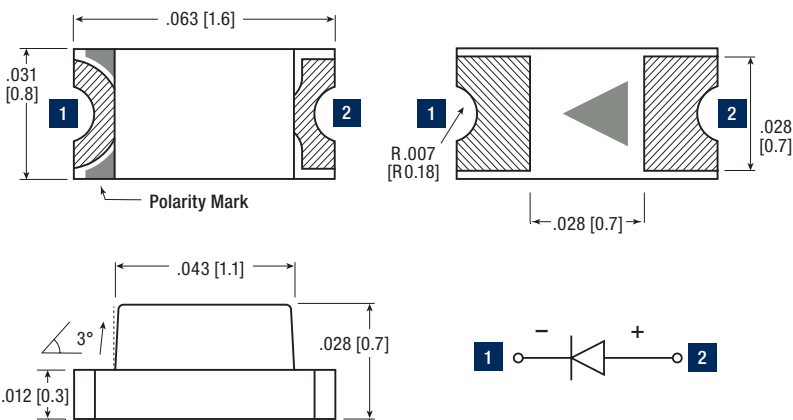
- Compatible with automatic placement equipment
- Packaged in 8 mm tape, 7" reel (4000 pcs/reel) and 20 per strip
- Meets EIA-481-1 pkg. std.

## Dimensions

inches [mm]

Tolerance  $\pm 0.2$  mm unless otherwise noted

### Package

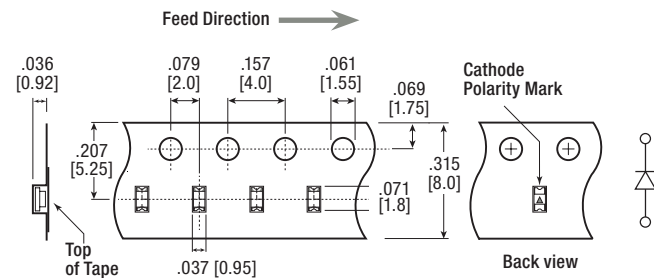


## Part Number Guide

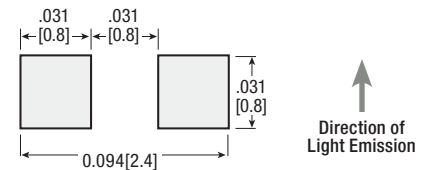
		RoHS Compliant	
5 9 9 - 0 0 X X - 0 0 X F			
Color		Packaging Option	
● Red	1 0	2	20 piece tape
● Red-Orange	2 0	7	7" reel
● Orange	3 0		4000 pcs/reel
● Yellow	4 0		
● Yellow-Green	6 0		
● Green	8 1		
● Blue	9 1		

## Tape

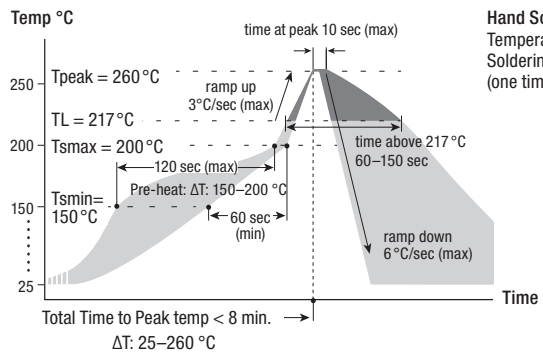
Tolerance  $\pm 0.1$  mm unless otherwise noted



## Soldering



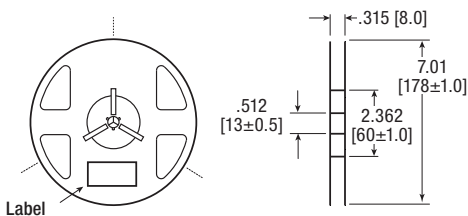
## Reflow Profile



**Hand Soldering**  
Temperature: 300°C max.  
Soldering time: 3 sec max.  
(one time only)

## Reel

Tolerance  $\pm 0.1$  mm unless otherwise noted

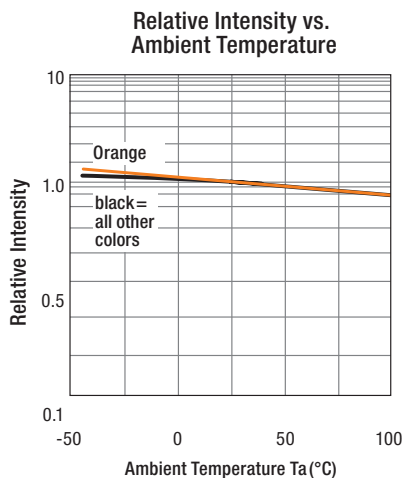
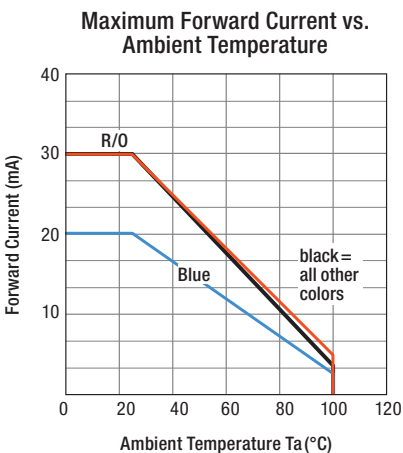
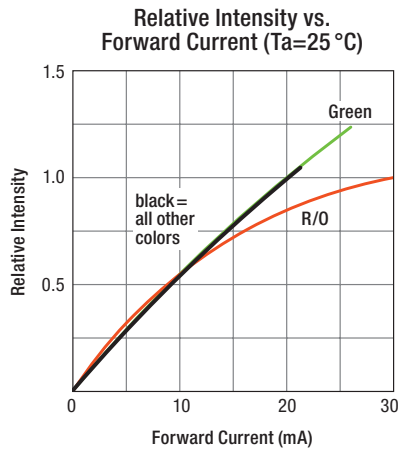
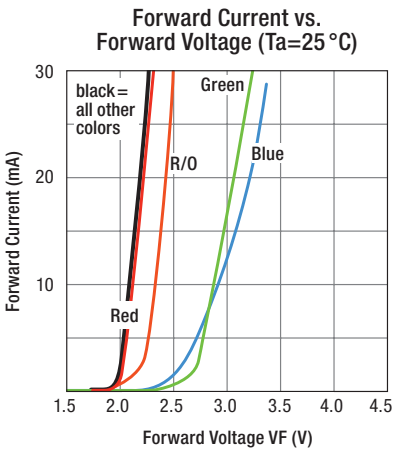


### Electrical/Optical Characteristics

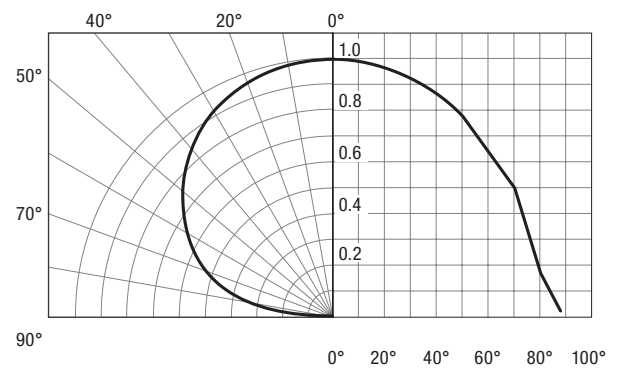
Dialight P/N		Emitted Color	Material	Lens Color	Luminous Intensity			Dominant Wavelength			Forward Voltage			Viewing Angle (°deg.)	Thermal Resistance (°C/W) R <sub>th(j-s)</sub> I <sub>f</sub> =20 ma	Reverse Current Intensity (μA) (I <sub>r</sub> ) VR=5V
20-Piece Tape	7" Reel, 4000 pcs				I <sub>f</sub> = 20 ma											
					Min	Typ	Max	Min	Typ	Max	Min	Typ	Max			
599-0010-002F	599-0010-007F	● Red	AlInGaP	Non Diffused	23	45	-	625	633	640	-	2.1	2.5	140	450	10
599-0020-002F	599-0020-007F	● Red-Orange			90	169	-	620	625	630	-	2.1	2.5			
599-0030-002F	599-0030-007F	● Orange			53	90	-	600	605	610	-	2.1	2.5			
599-0040-002F	599-0040-007F	● Yellow			68	105	-	585	590	595	-	2.1	2.5			
599-0060-002F	599-0060-007F	● Yellow-Green			9	43	-	562	569	575	-	2.1	2.5			
599-0081-002F	599-0081-007F	● Green	InGaN	Non Diffused	195	340	-	517	525	530	-	3.1	3.5			
599-0091-002F	599-0091-007F	● Blue			70	150	260	465	470	475	2.8	3.2	3.5			

### Absolute Maximum Ratings @ Ts=25°C

Power Dissipation (mW)	72	102 ● G - InGaN
		70 ● B
Forward Current (mA)	30	20 ● B
Reverse Voltage (V)	5	
Operating Temp (°C)	-40 to +100	
Storage Temp (°C)	-40 to +100	
Peak Pulse Fw Current (mA)	60	
Electrostatic Discharge (HBM) (V)	2000	1000 ● G - InGaN ● B
Junction Temp (°C)	105	



### Diagram Characteristics of Radiation



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