

#### Certifications & Ratings

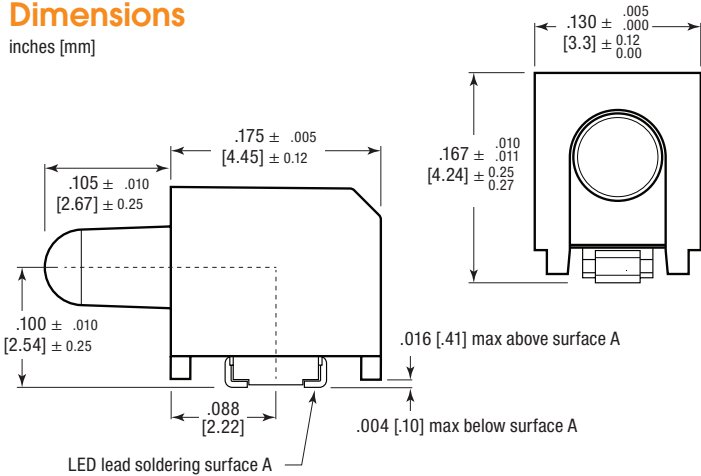
- RoHS and REACH compliant

#### Features & Benefits

- Compatible with automatic placement equipment.
- Packaged in 16mm tape, 7" reel (400 pcs/reel), 13" reel (1600 pcs/reel) and 20 piece strips.
- Compatible with surface mount reflow soldering processes.
- Housing material meets UL-94V-0 flammability ratings.
- Design provides increased indication without increased space.
- Packaged in moisture barrier bags for dry packaging per IPC/JEDEC J-STD-033.
- Helps eliminate mixed technology PC board processing.
- MSL2 for 2mA, MSL3 for 20mA

#### Dimensions

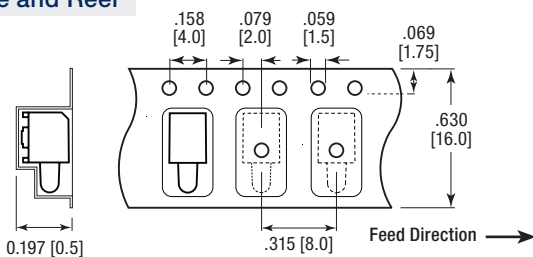
inches [mm]



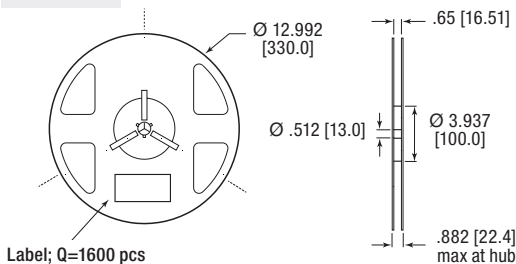
#### Part Number Guide

Color			Current		Packaging Option		
● Red	0	0	1	20mA	0	2	20 pc tape
● Orange	5	0	1		0	7	7" reel / 400 pcs
● Yellow	4	0	1		1	3	13" reel / 1600 pcs
● Yellow-Green	3	0	1				
● Green	9	0	1				
● Red	0	0	4	2mA			
● Orange	5	0	4				
● Yellow	4	0	4				
● Ice Blue	6	0	4				
○ White	8	0	4				

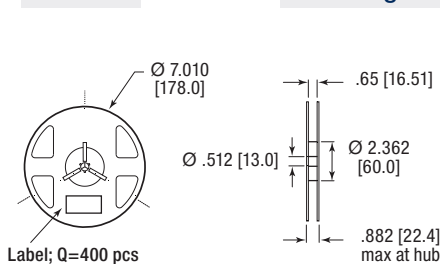
#### Tape and Reel



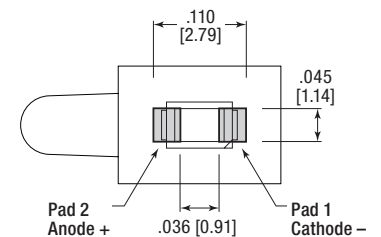
#### 13" Reel



#### 7" Reel



#### Soldering Pad Layout



Reflow profiles shown on reverse >



### Electrical/Optical Characteristics

Dialight P/N			Emitted Color	Material	Luminous Intensity	Dominant Wavelength		Forward Voltage		Viewing Angle (°deg.)	Reverse Current Intensity (µA) (Ir) VR=5V	
20-Piece Tape	7" Reel, 400 pcs	13" Reel, 1600 pcs			If = 20mA							
					Typ	Min	Typ	Max	Typ	Max		
594-2001-002F	594-2001-007F	594-2001-013F	● Red	AlInGaP	54	–	625	–	1.8	2.4	120	10
594-2501-002F	594-2501-007F	594-2501-013F	● Orange		38	–	605	–	1.8	2.4		
594-2401-002F	594-2401-007F	594-2401-013F	● Yellow		48	–	590	–	1.8	2.4		
594-2301-002F	594-2301-007F	594-2301-013F	● Yellow-Green		9	–	570	–	1.8	2.4		
594-2901-002F	594-2901-007F	594-2901-013F	● Green	InGaN	312	–	525	–	2.8	3.5		

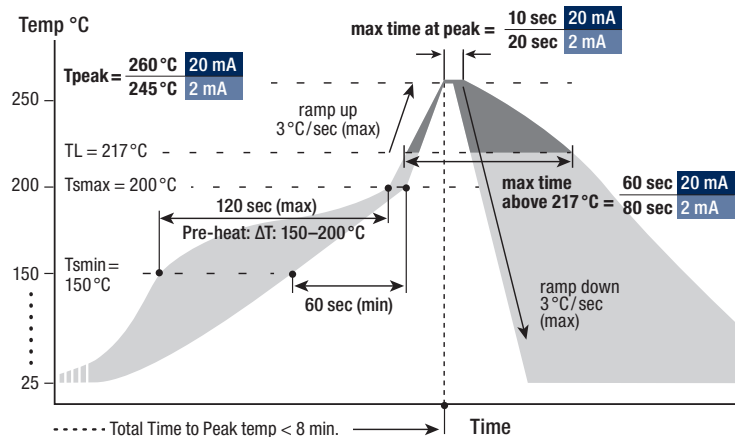
					If = 2 mA							
					Typ	Min	Typ	Max	Typ	Max		
594-2004-002F	594-2004-007F	594-2004-013F	● Red	AlInGaP	2	624	630	635	1.7	2.2	120	10
594-2404-002F	594-2404-007F	594-2404-013F	● Orange		3	600	606	609	1.7	2.2		
594-2504-002F	594-2504-007F	594-2504-013F	● Yellow		2.2	580	587	595	1.7	2.2		
594-2604-002F	594-2604-007F	594-2604-013F	● Ice Blue	InGaN	3	x=0.2, y=0.3		2.5	3.1			
594-2804-002F	594-2804-007F	594-2804-013F	○ White		5	x=0.33, y=0.33		2.5	3.1			

### Absolute Maximum Ratings

@ Ts = 25 °C

	If = 20 mA		If = 2 mA	
Power Dissipation (mW)	● R, ● Y, ● YG	48	–	
	● O	60	–	
	● G	70	–	
Forward Current (mA)	all	20	● R, ● O, ● Y, ○ W	20
			● IB	15
Peak Pulse Fwd Current (mA)	● R, ● Y, ● YG, ● G	100	● R, ● O, ● Y	100
	● O	80	● IB	150
Reverse Voltage (V)	all	5	● R, ● O, ● Y	12
			● IB, ○ W	5
Operating Temp (°C)	-40°C to +85°C		-40°C to +100°C	
Storage Temp (°C)	-40°C to +100°C			
Electrostatic Discharge (V)	2000			

### Reflow Profile



Dialight reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: [www.dialightsignalsandcomponents.com](http://www.dialightsignalsandcomponents.com)

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