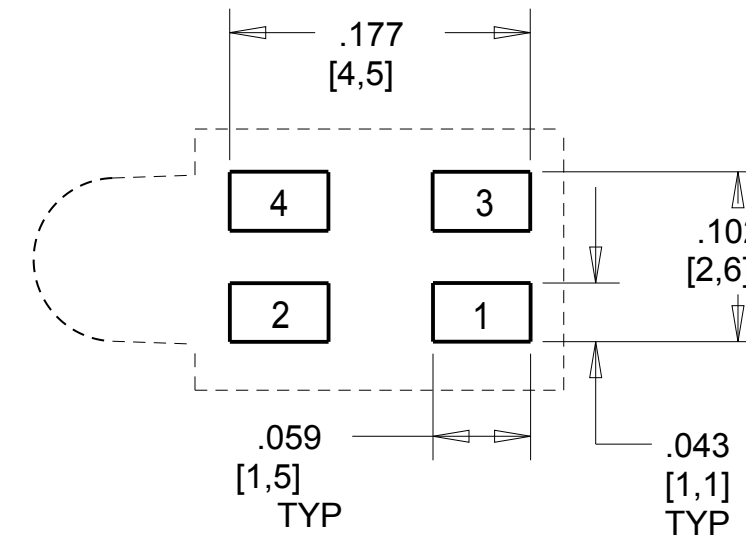
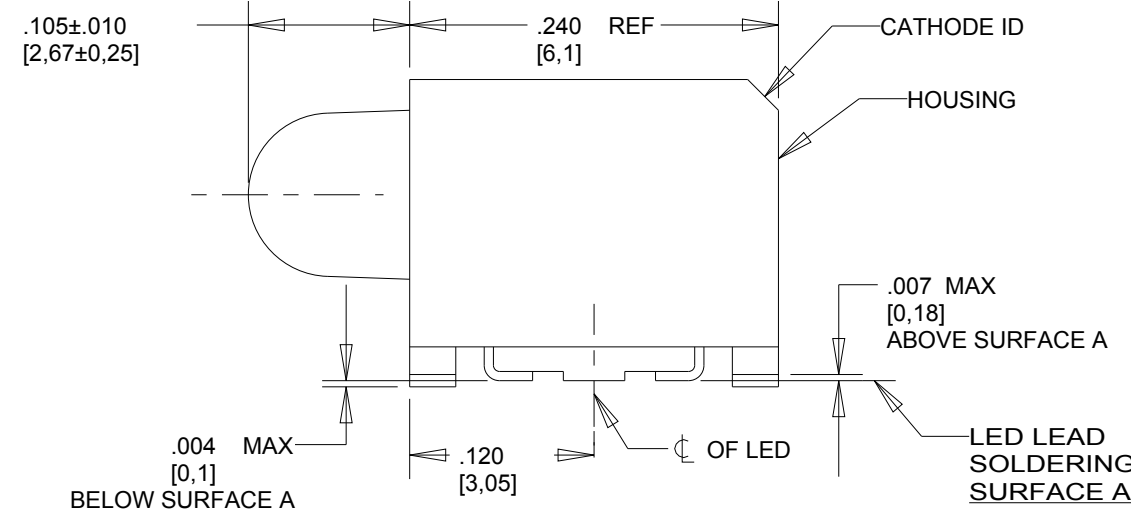
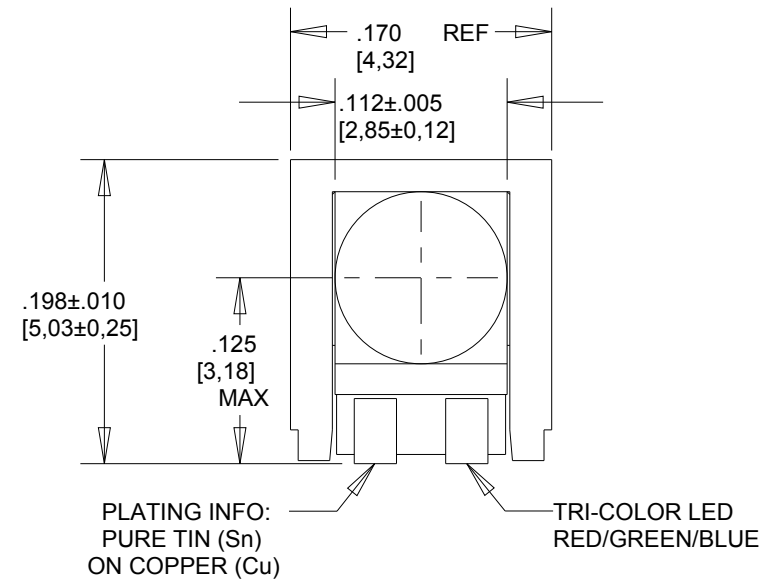
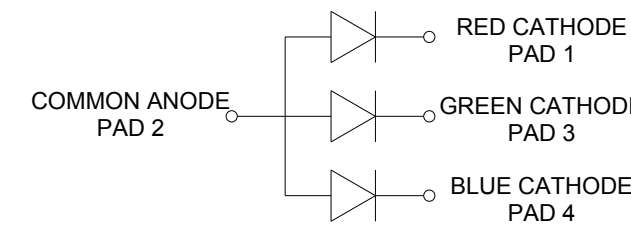
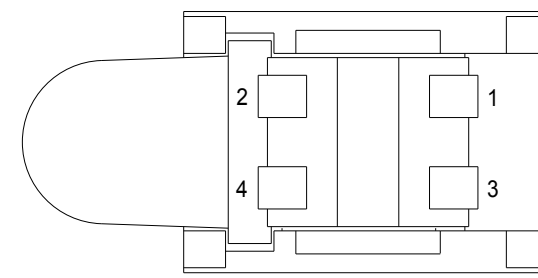


| REV | REVISIONS  | DRN | CKD | APP | DATE    |
|-----|--|-----|-----|-----|---------|
| A   | NEW RELEASE                                      | KLJ | NO  | MD  | 6-30-08 |
| B   | ADDED PINOUTS & OUTLINE TO SOLDER PATTERN LAYOUT | MMB | JTD | NO  | 6-28-13 |
| C   | CHANGED TITLE TO R/G/B                           | RSK | WB  | NO  | 11-7-14 |
| D   | CHANGED THE REFLOW PROFILE                       | LD  |     | NO  | 9-18-19 |

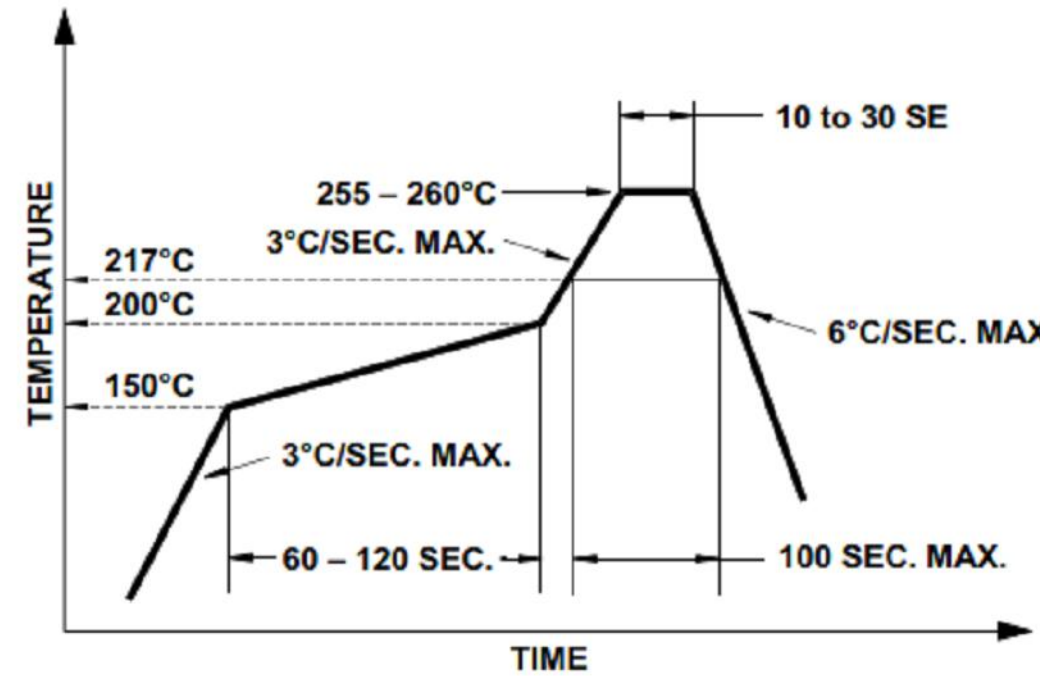


RECOMMENDED SOLDER PAD LAYOUT



NOTES:

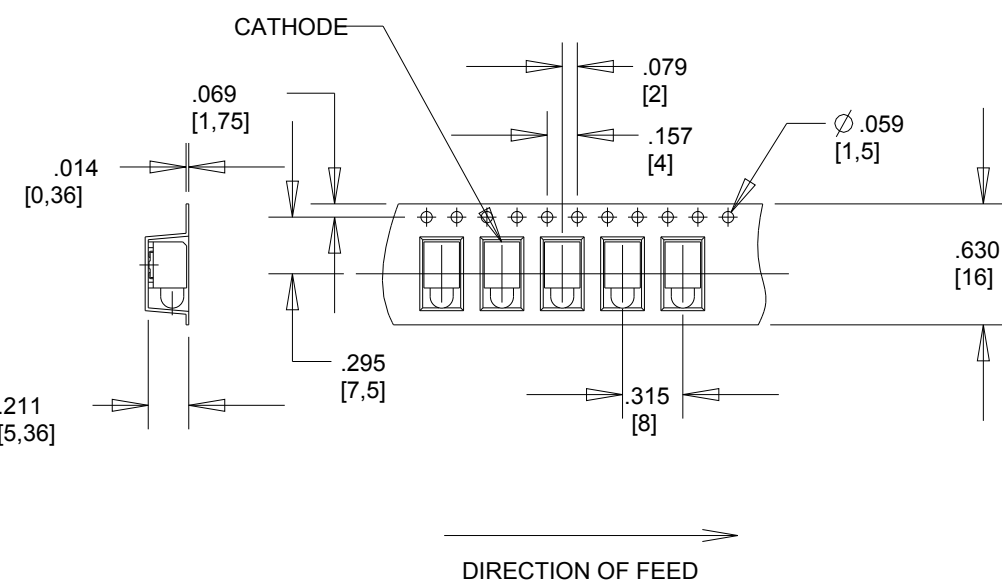
- MILLIMETER DIMENSIONS SHOWN FOR REFERENCE ONLY.
- PAD NUMBERS FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PART.
- STORAGE CONDITIONS FOR TAPED PRODUCT: RE-TAPING MAY BE NECESSARY FOR PRODUCT STORED MORE THAN TWELVE MONTHS.
- ORDER QUANTITY IS LED ASSEMBLIES, NOT REELS.
- 831F SUFFIX MEANS PARTS ARE PACKED ON A 20 PCS SAMPLE STRIP.  
-832F SUFFIX MEANS PARTS ARE PACKED ON A 7 INCH REEL, 400 PCS/REEL.  
-833F SUFFIX MEANS PARTS ARE PACKED ON A 13 INCH REEL, 1600 PCS/REEL.
- LENS MOVEMENT IN RELATIONSHIP TO THE HOUSING IS:  
.009" T.I.R. VERTICALLY.  
.007" T.I.R. HORIZONTALLY.
- FRONT AND REAR TERMINALS OF ASSEMBLY TO BE WITHIN .005 COPLANARITY.
- DIALIGHT PART NUMBERS: 591-3501-831F, 591-3501-832F, 591-3501-833F.
- DEVICE HAS A MOISTURE SENSITIVITY LEVEL "2a" CAUTION LABEL APPLIED AS PER JEDEC STD. 033.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND STORAGE IN ACCORDANCE WITH 1PC-A-610.



| OPERATING CHARACTERISTICS AT 25° C AMBIENT |                      |                   |                     |               |                       |
|--|----------------------|-------------------|---------------------|---------------|-----------------------|
| LED CHARACTERISTICS                        | COLOR                | TYP               | MAX                 | UNITS         | TEST CONDITIONS       |
| LUMINOUS INTENSITY                         | RED<br>GREEN<br>BLUE | 60<br>150<br>30   |                     | mcd           | $I_F = 20 \text{ mA}$ |
| FORWARD VOLTAGE                            | RED<br>GREEN<br>BLUE | 1.9<br>3.4<br>3.4 | 2.4<br>4.05<br>4.05 | V             | $I_F = 20 \text{ mA}$ |
| REVERSE CURRENT                            | RED<br>GREEN<br>BLUE |                   | 10<br>10<br>100     | $\mu\text{A}$ | $V_R = 5 \text{ V}$   |
| PEAK WAVELENGTH                            | RED<br>GREEN<br>BLUE | 635<br>523<br>468 |                     | nm            |                       |
| DOMINANT WAVELENGTH                        | RED<br>GREEN<br>BLUE | 626<br>525<br>470 |                     | nm            |                       |
| VIEWING ANGLE                              | ALL                  | 40                |                     | DEGREE        |                       |

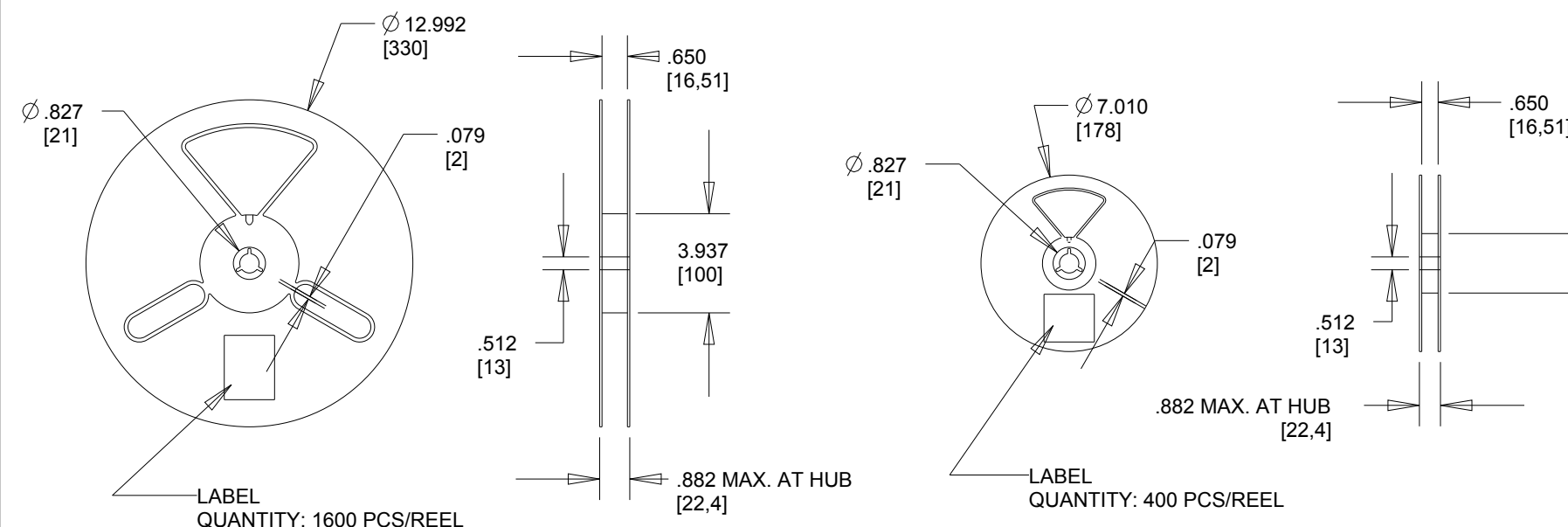
| ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT                               |             |       |      |                            |
|---|-------------|-------|------|----------------------------|
|   | RED         | GREEN | BLUE | UNIT                       |
| POWER DISSIPATION   | 72          | 120   | 120  | mW                         |
| CONTINUOUS FORWARD CURRENT  | 30          | 20    | 20   | mA                         |
| DERATE LINEARLY FROM 80° C (BLUE & GREEN FROM 70° C) BASED ON 1 CHIP ON | 1.00        | 0.5   | 0.5  | $\text{mA}/^\circ\text{C}$ |
| PEAK FORWARD CURRENT  | 100         | 100   | 100  | mA                         |
| REVERSE VOLTAGE   | 5           | 5     | 5    | V                          |
| OPERATING TEMPERATURE RANGE   | -55 TO +100 |       |      | $^\circ\text{C}$           |
| STORAGE TEMPERATURE RANGE   | -55 TO +100 |       |      | $^\circ\text{C}$           |
| JUNCTION TEMPERATURE  | +110        |       |      | $^\circ\text{C}$           |

TAPING SPECIFICATION



TOLERANCE: .004 UNLESS OTHERWISE SPECIFIED.  
MILLIMETER DIMENSIONS SHOWN FOR REFERENCE ONLY.

REEL SPECIFICATION



13 INCH DIA. REEL SPECIFICATIONS

7 INCH DIA. REEL SPECIFICATIONS

RoHS Compliant 591-3501-83XF

Part Numbers with the "F" suffix ending are RoHS Compliant.  
For example: 591-3501-832F  
Reel and bag packaging are marked with "RoHS Compliant" label or equivalent markings. These parts can be used with RoHS reflow profile. Parts can be wave soldered, dip soldered or hand soldered using typical lead-free soldering process with max 260°C temp. for 5 sec.



ATTENTION:  
OBSERVE PRECAUTIONS FOR  
HANDLING ELECTROSTATIC  
SENSITIVE DEVICES

|   |  |                 |
|---|--|-----------------|
| THIS DRAWING AND THE CONTENTS HEREIN ARE CONFIDENTIAL AND THE SOLE PROPERTY OF DIALIGHT CORP. REPRODUCTION OF THIS DRAWING OR CONSTRUCTION OF ANY PARTS WITHIN THIS DRAWING ARE FORBIDDEN WITHOUT THE WRITTEN CONSENT OF DIALIGHT CORP. |  |                 |
| SCALE: DRAWING SCALE<br>ALL DIM'S IN: INCHES (MM)   | DRAWING NUMBER<br><b>C-17620</b>   | REV<br><b>D</b> |
| TOLERANCES:<br>UNLESS OTHERWISE SPECIFIED<br>FRACTIONS: ±1/64<br>DECIMALS (.XX): ±.01<br>DECIMALS (.XXX): ±.005<br>DECIMALS (.XXXX): ±.0005<br>ANGLES: ±1°  | TITLE<br><b>R/G/B PRISM-ROUND LENS</b><br>MATERIAL<br><b>RoHS COMPLIANT</b>        |                 |
| FINISH  |  |                 |
| FSCM 83330  | 1501 ROUTE 34 SOUTH<br>FARMINGDALE, NJ 07727<br>(732) 919-3119<br>www.dialight.com |                 |
| SHEET 1 OF 1 FAMILY TABLE:  |  |                 |