

| ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT                |               | UNITS |
|---|---------------|-------|
| OPERATING TEMPERATURE                                   | -20 TO +80    | °C    |
| STORAGE TEMPERATURE                                     | -55 TO +105   | °C    |
| FORWARD CURRENT   | 20            | mA    |
| PEAK FORWARD CURRENT (1/10 DUTY CYL, 0.1ms PULSE WIDTH) | 100           | mA    |
| REVERSE VOLTAGE   | 5             | V     |
| POWER DISSIPATION                                       | 70            | mW    |
| DERATE LINEARLY FROM 25°C                               | 0.25          | mA/°C |
| WAVE SOLDERING CONDITION                                | 260 FOR 5 SEC | °C    |

| OPERATING CHARACTERISTICS AT 25°C AMBIENT |       |      |       |        |                        |  |
|---|-------|------|-------|--------|------------------------|--|
| CHARACTERISTICS                           | MIN   | TYP  | MAX   | UNITS  | TEST CONDITIONS        |  |
| LUMINOUS INTENSITY                        | 112.0 | —    | 240.0 | mcd    | I <sub>F</sub> = 10 mA |  |
| FORWARD VOLTAGE                           | 2.80  | —    | 3.40  | V      | I <sub>F</sub> = 10 mA |  |
| REVERSE CURRENT                           | —     | —    | 10    | μA     | V <sub>R</sub> = 5 V   |  |
| VIEWING ANGLE                             | 130   |      |       | Degree |                        |  |
| CHROMATICITY COORDINATES                  | x     | 0.31 |       |        |                        |  |
|   | y     | 0.32 |       |        |                        |  |
|   |       |      |       |        | I <sub>F</sub> = 10 mA |  |

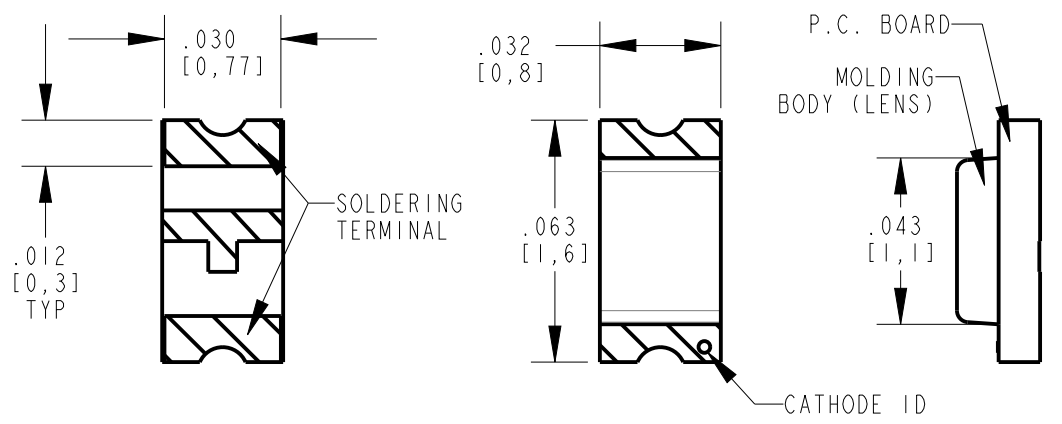
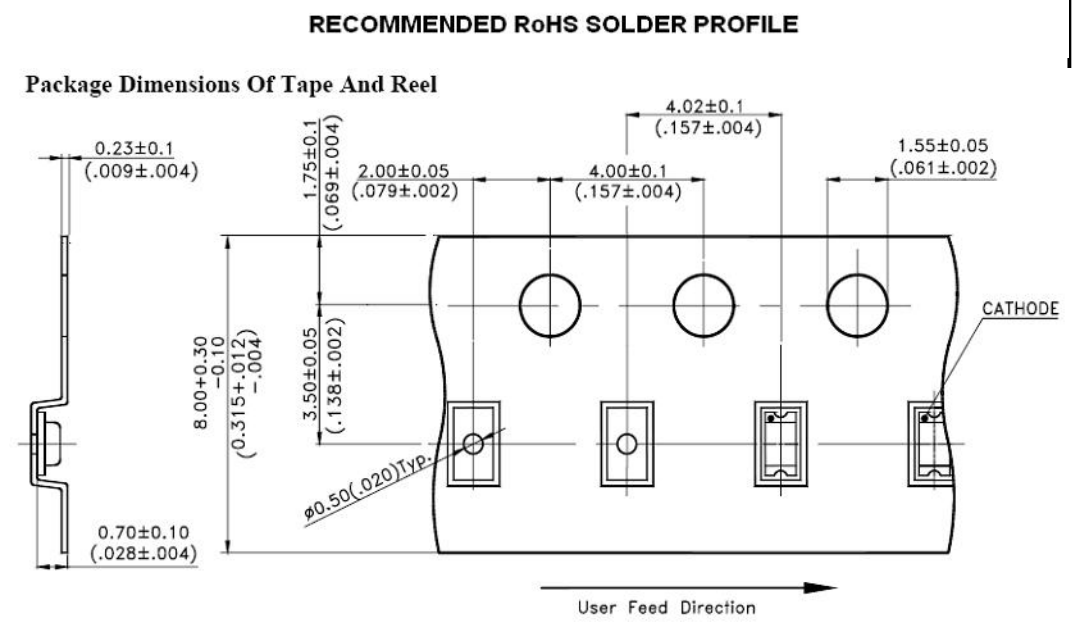
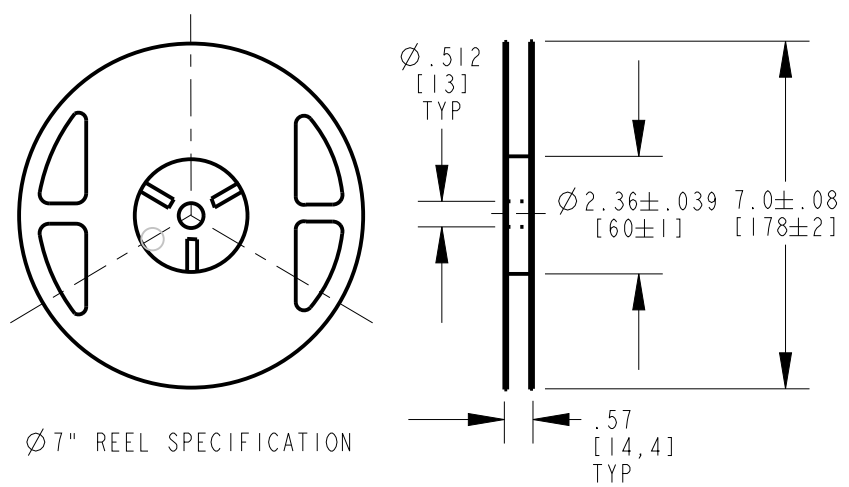
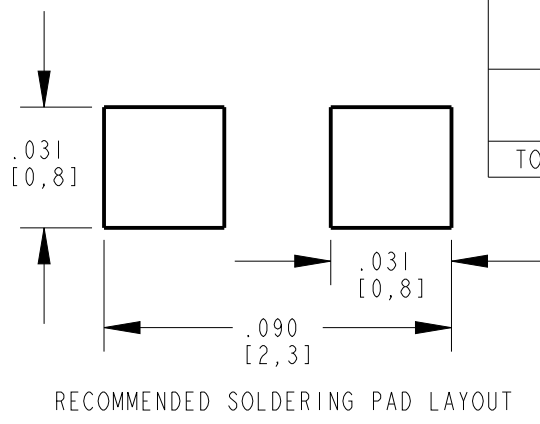
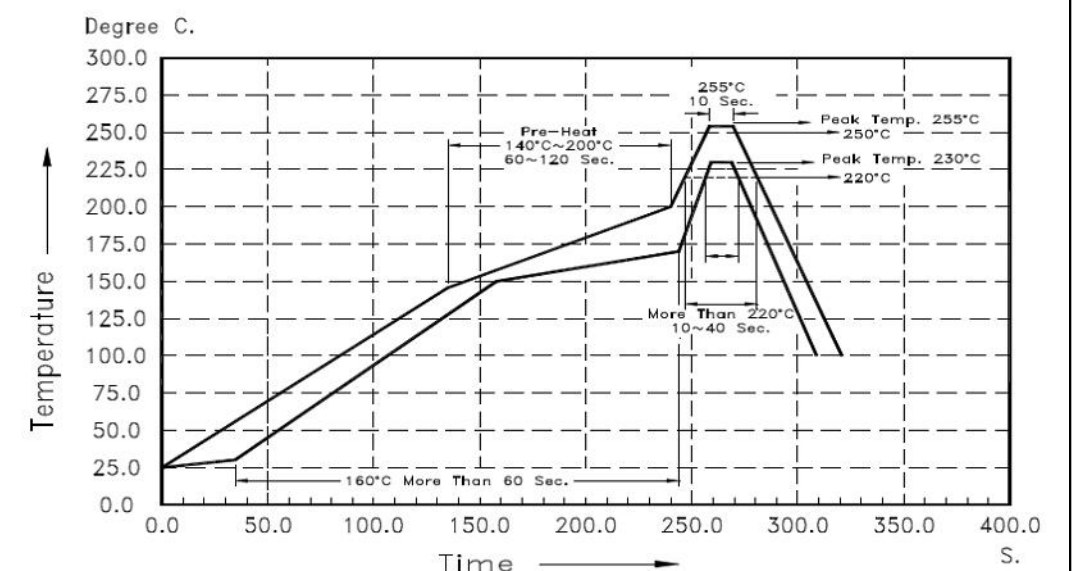
| REV | ECN NO | REVISIONS                                   | DRN | CKD | APP | DATE    |
|-----|--------|---|-----|-----|-----|---------|
| A   | —      | NEW RELEASE                                 | KLJ | NO  | —   | 1-17-08 |
| B   | —      | UPDATED NOTE 4, PACKAGING WAS 3000 PCS/REEL | BP  | —   | NO  | 3-22-18 |

| HUE SPECIFICATION TABLE |   |       |       |       |       |  |
|-------------------------|---|-------|-------|-------|-------|--|
| HUE BIN                 | COLOR BIN LIMITS @ I <sub>F</sub> =10mA |       |       |       |       |  |
|                         | CIE 1931 CHROMATICITY COORDINATES       |       |       |       |       |  |
| A0                      | x                                       | 0.280 | 0.296 | 0.283 | 0.264 |  |
|                         | y                                       | 0.248 | 0.276 | 0.305 | 0.267 |  |
| B3                      | x                                       | 0.287 | 0.307 | 0.304 | 0.283 |  |
|                         | y                                       | 0.295 | 0.315 | 0.330 | 0.305 |  |
| B4                      | x                                       | 0.307 | 0.330 | 0.330 | 0.304 |  |
|                         | y                                       | 0.315 | 0.339 | 0.360 | 0.330 |  |
| B5                      | x                                       | 0.296 | 0.311 | 0.307 | 0.287 |  |
|                         | y                                       | 0.276 | 0.294 | 0.315 | 0.295 |  |
| B6                      | x                                       | 0.311 | 0.330 | 0.330 | 0.307 |  |
|                         | y                                       | 0.294 | 0.318 | 0.339 | 0.315 |  |
| C0                      | x                                       | 0.330 | 0.356 | 0.361 | 0.330 |  |
|                         | y                                       | 0.318 | 0.351 | 0.385 | 0.360 |  |

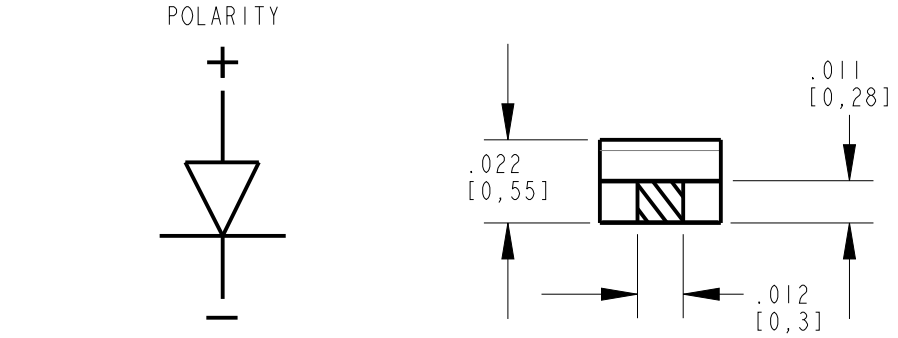
TOLERANCE ON EACH HUE (x,y) BIN IS ±0.01

| LUMINOUS INTENSITY SPECIFICATION TABLE |   |     |
|--|---|-----|
| IV BIN                                 | LUMINOUS INTENSITY (mcd) @ I <sub>F</sub> =10mA |     |
|  | MIN   | MAX |
| R1                                     | 112   | 146 |
| R2                                     | 146   | 180 |
| S1                                     | 180   | 240 |

TOLERANCE ON EACH LUMINOUS INTENSITY BIN IS ±15%



- NOTES:
- LENS COLOR: YELLOW
  - LED CHIP: InGaN WHITE
  - LEADS ARE GOLD (Au) PLATED FINISH.
  - 830F SUFFIX MEANS PARTS ARE PACKED ON A 7 INCH REEL, 5000 PCS/REEL.  
-831F SUFFIX MEANS PARTS ARE PACKED ON A 20 PCS SAMPLE STRIP.
  - DIALIGHT PART NUMBER: 597-3901-830F, 597-3901-831F
  - THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND STORAGE IN ACCORDANCE WITH IPC-A-610.
  - MOISTURE SENSITIVITY LEVEL 3.
  - TAPE AND REEL LEDs MAY REQUIRE RE-TAPING AFTER TWELVE MONTHS.



**RoHS Compliant 597-3901-830F, -831F**

Part Numbers with the "F" suffix ending are RoHS Compliant. 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: 20:000   | DRAWING NUMBER   | REV |
| ALL DIM'S: INCH (mm)  | C-17584  | B   |
| TOLERANCES: UNLESS OTHERWISE SPECIFIED  | TITLE 1.6mm x 0.8mm x 0.55mm SMT WHITE LED; RoHS COMPLIANT                         |     |
| FRACTIONS: ±1/64  | MATERIAL   |     |
| DECIMALS (.XX): ±.01  | FINISH   |     |
| DECIMALS (.XXX): ±.004  | FSCM 83330   |     |
| DECIMALS (.XXXX): ±.0005  | SHEET 1 OF 1 FAMILY TABLE:   |     |
| ANGLES: ±1°   | Dialight 1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727 (732) 919-3119 www.dialight.com |     |