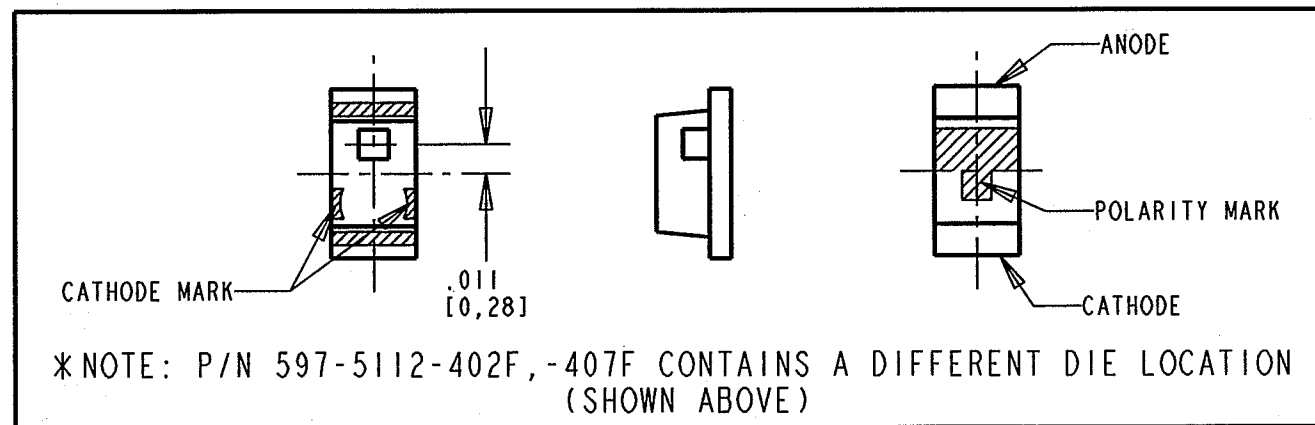
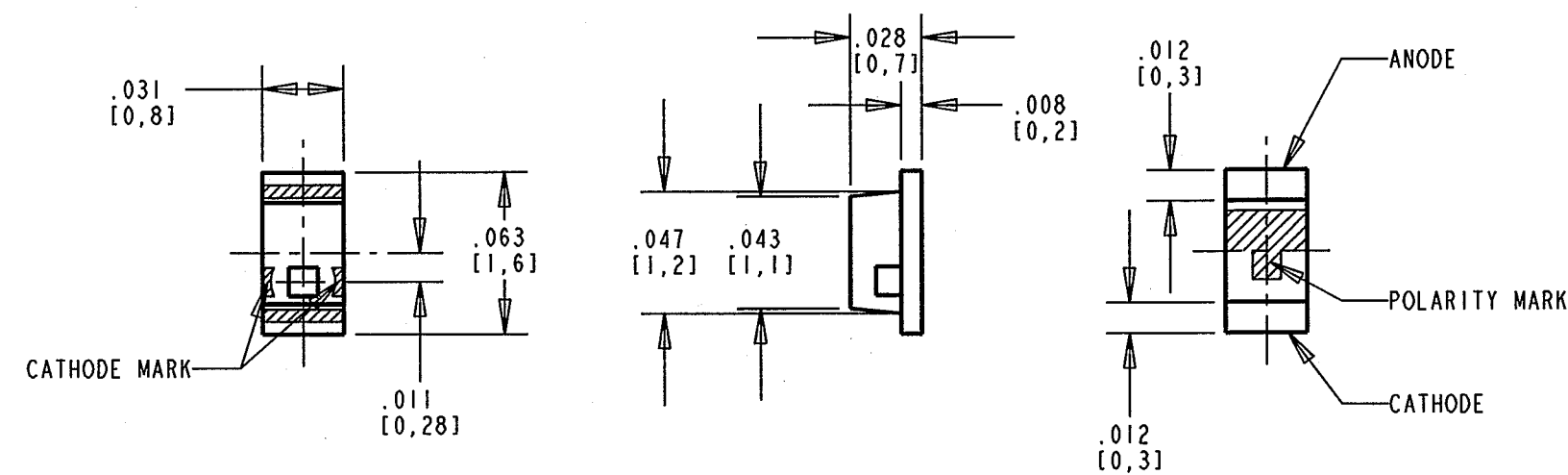
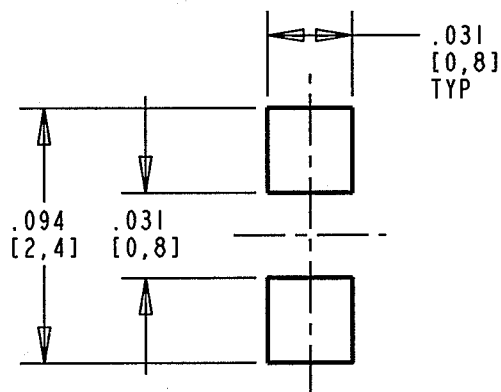


|                      |               |                   |                   | OPERATING CHARACTERISTICS AT 25° C AMBIENT |                     |     |                           |      |                       |                  |                      |                          |                         |
|----------------------|---------------|-------------------|-------------------|--------------------------------------------|---------------------|-----|---------------------------|------|-----------------------|------------------|----------------------|--------------------------|-------------------------|
| DIALIGHT PART NO.    | LED COLOR     | LED CHIP MATERIAL | EPOXY COLOR       | I <sub>F</sub><br>(mA)                     | FORWARD VOLTAGE (V) |     | LUMINOUS INTENSITY (mc d) |      | REVERSE CURRENT (μ A) |                  | PEAK WAVELENGTH (nm) | DOMINANT WAVELENGTH (nm) | VIEWING ANGLE (DEGREES) |
|                      |               |                   |                   |                                            | TYP                 | MAX | MIN                       | TYP  | MAX                   | V <sub>R</sub> = |                      |                          |                         |
| 597-5004-407F, -402F | BRIGHT RED    | AlInGaP           | WHITE<br>DIFFUSED | 20                                         | 1.9                 | 2.4 | 25                        | 50   | 100                   | 5 V              | 635                  | 626                      | 152                     |
| 597-5112-407F, -402F | RED           | AlGaAs            |                   | 20                                         | 1.7                 | 2.3 | 7.0                       | 11.7 | 100                   | 4 V              | 660                  | 647                      | 152                     |
| 597-5203-407F, -402F | ORANGE        | GaAsP             |                   | 20                                         | 2.2                 | 2.8 | 2.0                       | 3.4  | 100                   | 4 V              | 605                  | 606                      | 152                     |
| 597-5213-407F, -402F | BRIGHT ORANGE | AlInGaP           |                   | 20                                         | 1.9                 | 2.4 | 25                        | 65   | 100                   | 5 V              | 609                  | 605                      | 152                     |
| 597-5223-407F, -402F | BRIGHT YELLOW | AlInGaP           |                   | 20                                         | 1.9                 | 2.4 | 25                        | 65   | 100                   | 5 V              | 592                  | 590                      | 152                     |
| 597-5312-407F, -402F | GREEN         | GaP               |                   | 20                                         | 2.1                 | 2.8 | 3.8                       | 6.4  | 100                   | 4 V              | 560                  | 567                      | 152                     |
| 597-5412-407F, -402F | YELLOW-GREEN  | GaP               |                   | 20                                         | 2.1                 | 2.8 | 7.0                       | 11.7 | 100                   | 4 V              | 570                  | 572                      | 152                     |

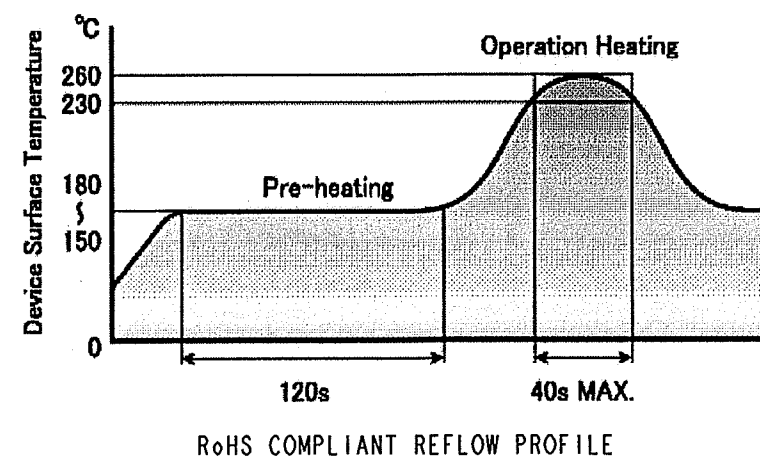


ATTENTION:  
OBSERVE PRECAUTIONS FOR  
HANDLING ELECTROSTATIC  
SENSITIVE DEVICES

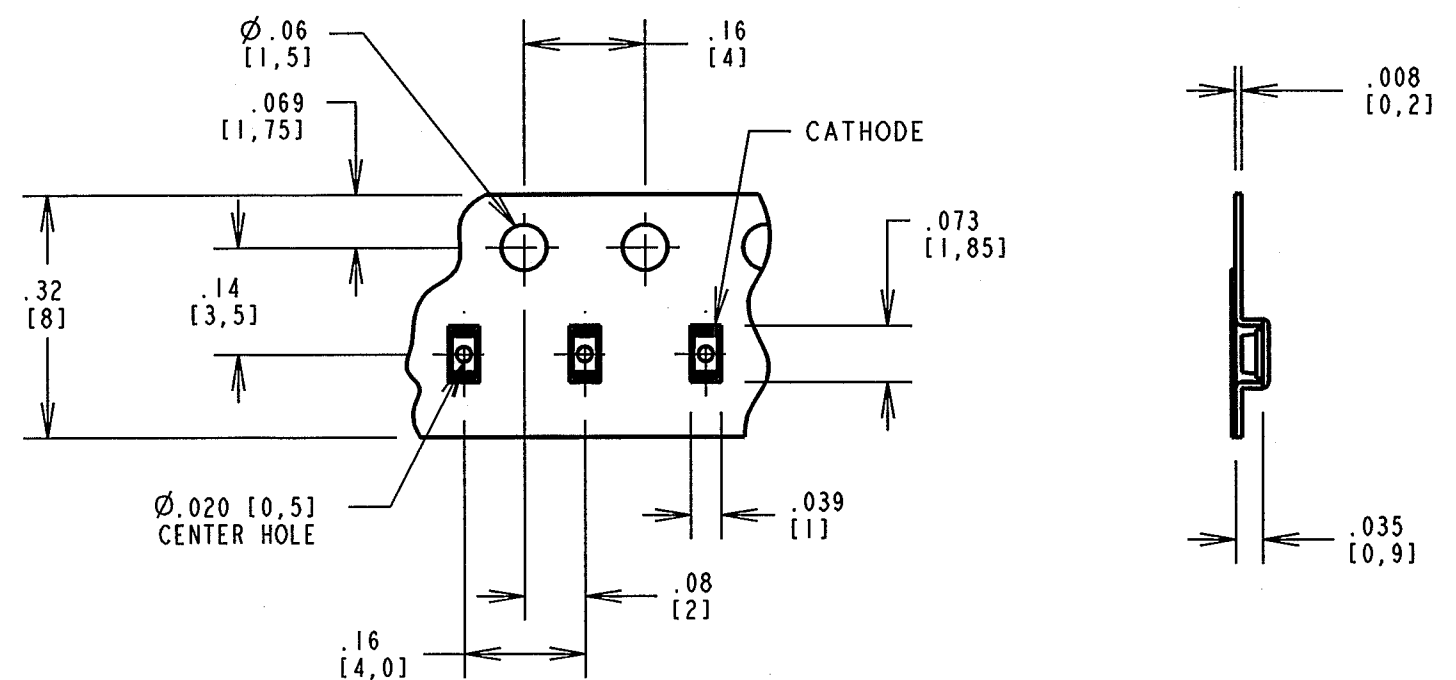
| REV | ECN NO | REVISIONS                                                                                                                                                                                                 | DRN | CKD  | APP  | DATE    |
|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|---------|
| A   | —      | NEW RELEASE                                                                                                                                                                                               | TC  | —    | H.G. | 7-16-98 |
| B   | —      | ON P/N 597-5203-407 GaAsP WAS GaP.                                                                                                                                                                        | TC  | —    | M.C. | 7-23-98 |
| C   | —      | ADDED COLORS TO MAX. RATING COLUMNS.                                                                                                                                                                      | TC  | D.C. | M.C. | 9-21-98 |
| D   | —      | ADDED NOTE 5.                                                                                                                                                                                             | TC  | D.C. | N.O. | 6-9-99  |
| E   | —      | NOTE 1-GOLD PLATED, OVER NICKEL, COPPER SUBSTRATE ON FR-4 LAMINATE WAS "GOLD PLATED"; ADDED NOTES 6 & 7 RoHS REFLOW PROFILE & -402F P/Ns; ADDED "F" RoHS COMPLIANT SUFFIX TO -407 P/Ns; UPDATED FORMAT    | TWC | TC   | N.O. | 9-22-05 |
| F   | —      | ADDED DIE LOC FOR 597-5112-402F -407F; MIN LUM. INT. "25" WAS "16" (3X); PEAK WAVELENGTH "635" WAS "630"; ADDED DOM WAVELENGTH VALUES; ADDED ESD SYMBOL; ADDED NOTE 8; P/N 597-5112-40XF DIE WAS "GaAsP". | KLJ | N.O. | MES  | 4-23-08 |
| G   | —      | "YELLOW-GREEN" WAS "YELLOW"; "BRIGHT RED" WAS "RED"; "BRIGHT ORANGE" WAS "ORANGE"; "BRIGHT YELLOW" WAS "YELLOW".                                                                                          | KLJ | no.  | 10   | 11-4-08 |



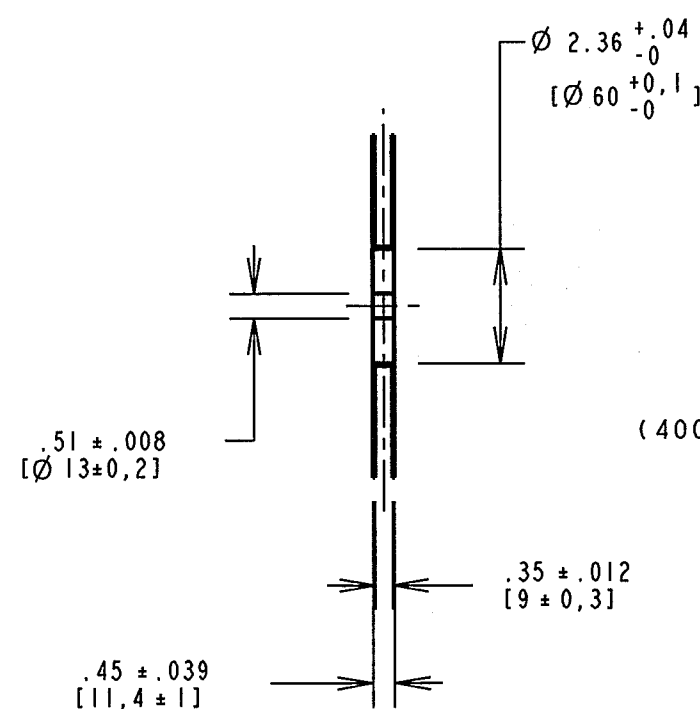
SOLDER PAD LAYOUT



RoHS COMPLIANT REFLOW PROFILE



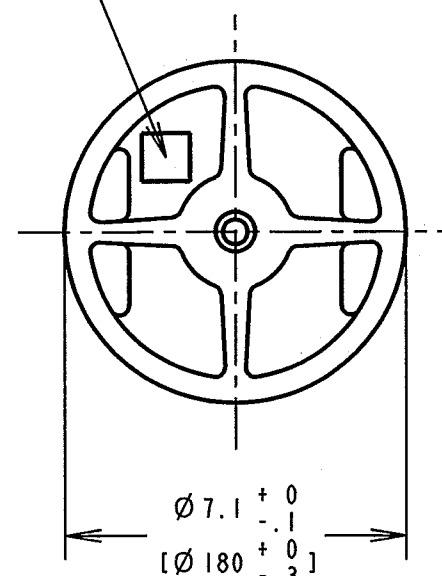
TAPE & REEL SPECIFICATION  
NO SCALE



(4000-PCS/REEL)

REEL SPECIFICATION  
NO SCALE

LABEL TO CONTAIN: DIALIGHT LOGO,  
DIALIGHT CATALOG PART NUMBER, QUANTITY,  
DATE OF MANUFACTURE, LOT NUMBER, RANK OF  
LUMINOUS INTENSITY, COUNTRY OF ORIGIN.



| ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT                        | BRIGHT RED  | BRIGHT ORANGE | BRIGHT YELLOW | RED         | ORANGE | GREEN | YELLOW-GREEN | UNITS |
|------------------------------------------------------------------|-------------|---------------|---------------|-------------|--------|-------|--------------|-------|
| POWER DISSIPATION                                                | 81          |               |               | 57.5        | 70     | 70    | 70           | mW    |
| FORWARD CURRENT                                                  | 30          |               |               | 25          |        |       |              | mA    |
| PEAK FORWARD CURRENT (≤ 1/20 DUTY CYCLE T <sub>w</sub> ≤ 1 msec) | 100         |               |               | 60          |        |       |              | mA    |
| REVERSE VOLTAGE                                                  | 5           |               |               | 4           |        |       |              | V     |
| OPERATING TEMPERATURE                                            | -40 TO +85  |               |               | -30 TO +85  |        |       |              | °C    |
| STORAGE TEMPERATURE                                              | -40 TO +100 |               |               | -40 TO +100 |        |       |              | °C    |

NOTES:

- SOLDER TERMINALS: GOLD (Au) PLATED, OVER NICKEL (Ni), COPPER (Cu) SUBSTRATE ON FR-4 LAMINATE
- SOLDER ADHERANCE: EACH PAD PER MIL-STD-202E, METHOD 208C.
- TAPE AND REEL AS PER EIA STANDARD 481-1, WITH CATHODE TOWARD SPROCKET.
- PARTS PACKAGED ON 180 mm DIA REEL, 8 mm TAPE, 4000/REEL (SEE SKETCH).
- TAPE AND REEL LEDS MAY REQUIRE RE-TAPING AFTER TWELVE MONTHS.
- DIALIGHT PART NUMBER: 597-5XXX-407F AND 597-XXXX-402F
- THIS PRODUCT IS Pb FREE. IT IS IN COMPLIANCE WITH THE EUROPEAN UNION'S ROHS DIRECTIVE. EACH BAG AND REEL IS MARKED WITH THE RoHS COMPLIANT LABEL P/N 9100-117-0852-99 OR EQUIVALENT
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDs). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND STORAGE IN ACCORDANCE WITH IPC-A-610.

|                                                                                                                                                                                                                               |                                                          |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------|
| THIS DRAWING AND THE CONTENTS HEREIN ARE CONFIDENTIAL AND THE SOLE PROPERTY OF DIALIGHT. REPRODUCTION OF THIS DRAWING OR CONSTRUCTION OF ANY PARTS WITHIN THIS DRAWING ARE FORBIDDEN WITHOUT THE WRITTEN CONSENT OF DIALIGHT. |                                                          |               |
| SCALE: DRAWING SCALE<br>ALL DIM'S IN: INCHES (MM)                                                                                                                                                                             | DRAWING NUMBER<br>C-16413                                | REV<br>G      |
| 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>SMT LED<br>RoHS COMPLIANT                       |               |
| FINISH:                                                                                                                                                                                                                       | MATERIAL                                                 |               |
| FSCM 83330                                                                                                                                                                                                                    | Dialight<br>1501 ROUTE 34 SOUTH<br>FARMINGDALE, NJ 07727 |               |
|                                                                                                                                                                                                                               | SHEET 1 OF 1                                             | FAMILY TABLE: |