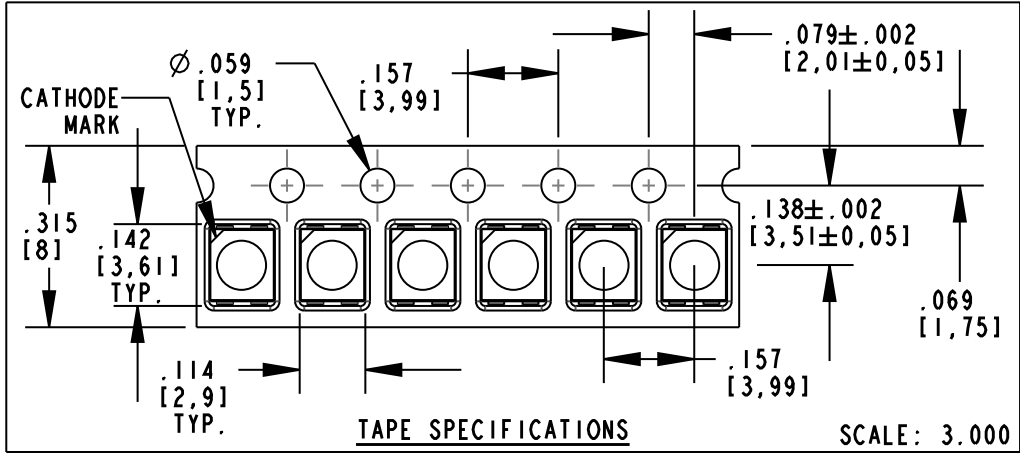


| DIALIGHT<br>PART NUMBER | PACKAGING    | LED COLOR   |
|-------------------------|--------------|-------------|
| 597-3029-202F           | SAMPLE STRIP | RED         |
| 597-3029-207F           | 7" REEL      |             |
| 597-3209-202F           | SAMPLE STRIP | ORANGE      |
| 597-3209-207F           | 7" REEL      |             |
| 597-3329-202F           | SAMPLE STRIP | InGaN GREEN |
| 597-3329-207F           | 7" REEL      |             |
| 597-3409-202F           | SAMPLE STRIP | YELLOW      |
| 597-3409-207F           | 7" REEL      |             |
| 597-3609-202F           | SAMPLE STRIP | BLUE        |
| 597-3609-207F           | 7" REEL      |             |
| 597-3909-202F           | SAMPLE STRIP | WHITE       |
| 597-3909-207F           | 7" REEL      |             |

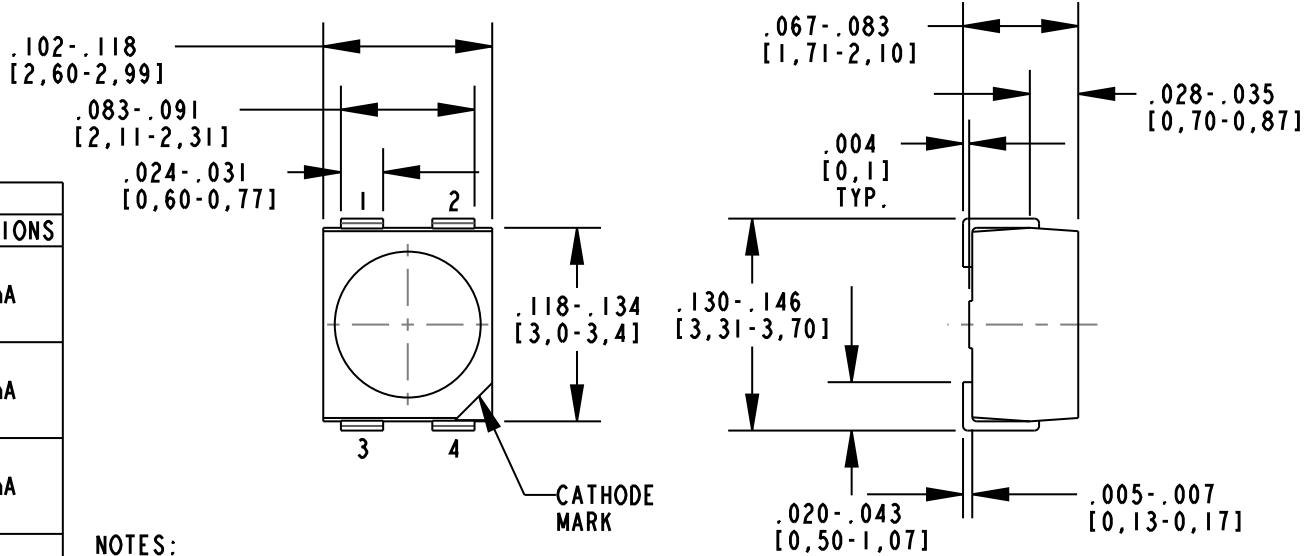
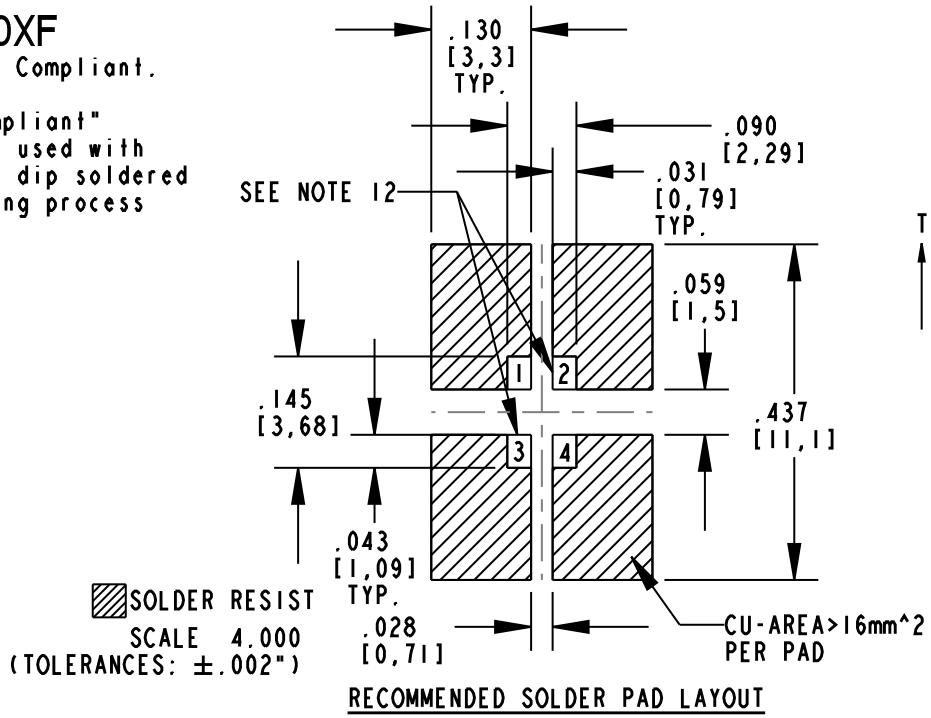
## RoHS COMPLIANT 597-3XX9-20XF

Part Numbers with the "F" suffix ending are RoHS Compliant.  
For example: 597-3029-202F  
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.



| OPERATING CHARACTERISTICS AT 25°C AMBIENT |             |             |      |      |         |                 |
|-------------------------------------------|-------------|-------------|------|------|---------|-----------------|
| LED CHARACTERISTICS                       | COLOR       | MIN.        | TYP. | MAX. | UNITS   | TEST CONDITIONS |
| LUMINOUS INTENSITY                        | RED         | 1120        | 1800 | 2800 | mcd     | If = 50 mA      |
|                                           | ORANGE      | 1400        | 2240 | 4500 |         |                 |
|                                           | YELLOW      | 1120        | 1800 | 2240 |         |                 |
|                                           | InGaN GREEN | 1120        | 1800 | 2240 |         | If = 30 mA      |
|                                           | BLUE        | 280         | 450  | 710  |         |                 |
|                                           | WHITE       | 1120        | 1600 | 2240 |         |                 |
| PEAK WAVELENGTH                           | RED         |             | 634  |      | nm      | If = 50 mA      |
|                                           | ORANGE      |             | 610  |      |         |                 |
|                                           | YELLOW      |             | 597  |      |         |                 |
|                                           | InGaN GREEN |             | 520  |      |         | If = 30 mA      |
|                                           | BLUE        |             | 464  |      |         |                 |
|                                           |             |             |      |      |         |                 |
| DOMINANT WAVELENGTH                       | RED         | 620         | 625  | 630  | nm      | If = 50 mA      |
|                                           | ORANGE      | 600         | 606  | 609  |         |                 |
|                                           | YELLOW      | 586         | 589  | 595  |         |                 |
|                                           | InGaN GREEN | 516         | 525  | 540  |         | If = 30 mA      |
|                                           | BLUE        | 463         | 469  | 475  |         |                 |
|                                           | WHITE       | SEE NOTE 10 |      |      |         |                 |
|                                           |             |             |      |      |         |                 |
| FORWARD VOLTAGE                           | RED         | 1.90        | 2.15 | 2.50 | V       | If = 50 mA      |
|                                           | ORANGE      | 1.90        | 2.15 | 2.50 |         |                 |
|                                           | YELLOW      | 2.05        | 2.15 | 2.65 |         |                 |
|                                           | InGaN GREEN | 2.90        | 3.40 | 3.80 |         | If = 30 mA      |
|                                           | BLUE        | 2.90        | 3.40 | 3.80 |         |                 |
|                                           | WHITE       | 2.90        | 3.30 | 3.80 |         |                 |
| VIEWING ANGLE                             | ALL         |             | 120  |      | DEGREES |                 |

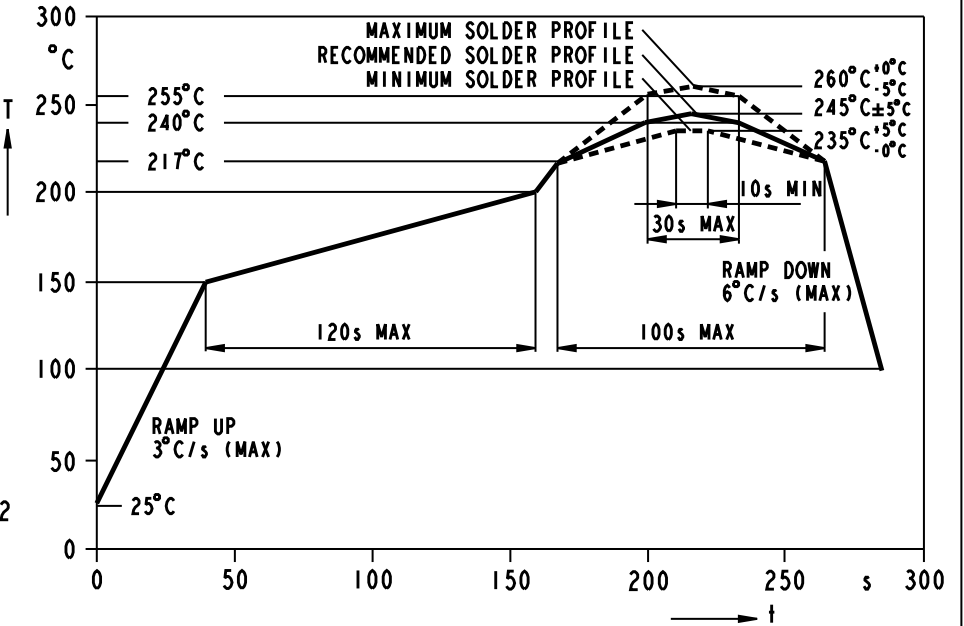
| ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT                                                                 |  | LED COLOR   |        |        |             |      |       | UNITS |
|----------------------------------------------------------------------------------------------------------|--|-------------|--------|--------|-------------|------|-------|-------|
|                                                                                                          |  | RED         | ORANGE | YELLOW | InGaN GREEN | BLUE | WHITE |       |
| CONTINUOUS FORWARD CURRENT                                                                               |  | 70          | 70     | 70     | 50          | 50   | 50    | mA    |
| PEAK FORWARD CURRENT ( $t \leq 10 \mu s$ , D=0.1 FOR RED, ORANGE, YELLOW; D=0.005 FOR InGaN GREEN, BLUE) |  | 100         | 100    | 100    | 400         | 300  | 300   | mA    |
| LINEAR DERATING FROM 70°C FOR RED, ORANGE, YELLOW; 60°C FOR InGaN GREEN, BLUE, WHITE                     |  | 1.16        | 1.16   | 1.16   | 0.80        | 0.80 | 0.80  | mA/°C |
| OPERATING TEMPERATURE                                                                                    |  | -40 TO +110 |        |        |             |      |       | °C    |
| STORAGE TEMPERATURE                                                                                      |  | -40 TO +110 |        |        |             |      |       | °C    |



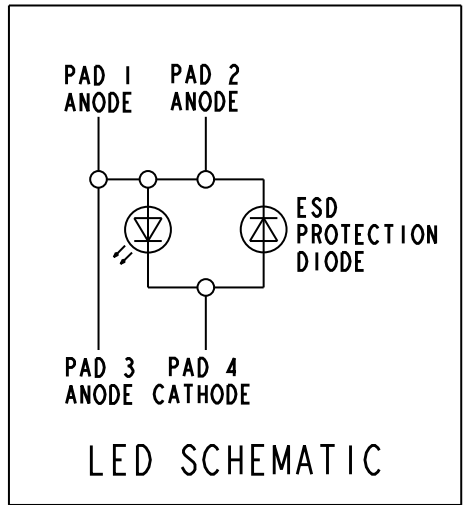
### NOTES:

- SOLDER ADHERANCE: EACH PAD PER MIL-STD-202E, METHOD 208C.
- SUFFIX -202F FOR 20-PCS ON A SAMPLE STRIP.
- SUFFIX -207F FOR 180mm DIA. REEL, 8mm WIDE TAPE, PACKAGED 2000 PCS PER REEL WITH A PITCH OF 4mm.
- TAPE AND REEL AS PER EIA STANDARD 481-1, WITH CATHODE TOWARD SPROCKET.
- LEDS NOT DESIGNED FOR REVERSE OPERATION.
- DIALIGHT PART NUMBER: 597-3XX9-20XF.
- TAPE AND REEL LEDS MAY REQUIRE RE-TAPING AFTER TWELVE MONTHS.
- PIN NUMBERS FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PART.
- DEVICES HAVE A MOISTURE SENSITIVITY LEVEL OF "2". CAUTION LABEL APPLIED AS PER JEDEC STD. 033.
- CHROMATICITY COORDINATES FOR WHITE LED AT If = 30 mA : X=0.30, Y=0.28.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING AND STORAGE IN ACCORDANCE WITH IPC-A-610.
- DO NOT USE PADS 2 & 3 FOR ELECTRICAL CONTACT.

| REV | ECN NO | REVISIONS   | DRN | CKD | APP | DATE   |
|-----|--------|-------------|-----|-----|-----|--------|
| A   |        | NEW RELEASE | AJF | KLJ | NO  | 5-2-11 |



### RECOMMENDED RoHS COMPLIANT REFLOW PROFILE



**ATTENTION:**  
OBSERVE PRECAUTIONS FOR  
HANDLING ELECTROSTATIC  
SENSITIVE DEVICES

|                                                                                                                                                                                                                               |                                                    |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------|
| 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: 8.000                                                                                                                                                                                                                  | DRAWING NUMBER                                     | REV           |
| ALL DIM'S IN: INCHES (MM)                                                                                                                                                                                                     | C-17824                                            | A             |
| TOLERANCES:<br>UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                     | TITLE                                              |               |
| FRACTIONS: $\pm 1/64$                                                                                                                                                                                                         | POWER PLCC-4 SMT LEDS                              |               |
| DECIMALS (.XX): $\pm .02$                                                                                                                                                                                                     | MATERIAL                                           |               |
| DECIMALS (.XXX): $\pm .004$                                                                                                                                                                                                   |                                                    |               |
| ANGLES: $\pm 3^\circ$                                                                                                                                                                                                         |                                                    |               |
| FINISH:                                                                                                                                                                                                                       |                                                    |               |
| FSCM 83330                                                                                                                                                                                                                    | Dialight 1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727 |               |
|                                                                                                                                                                                                                               | SHEET 1 OF 1                                       | FAMILY TABLE: |