

| DIALIGHT PART NO   | LED COLOR (nm)     |
|--------------------|--------------------|
| 598-8D10-102F,107F | RED (630)          |
| 598-8D20-102F,107F | RED ORANGE (615)   |
| 598-8D30-102F,107F | ORANGE (605)       |
| 598-8D40-102F,107F | YELLOW (590)       |
| 598-8D60-102F,107F | YELLOW GREEN (570) |
| 598-8D80-102F,107F | GREEN (525)        |
| 598-8D90-102F,107F | BLUE (470)         |



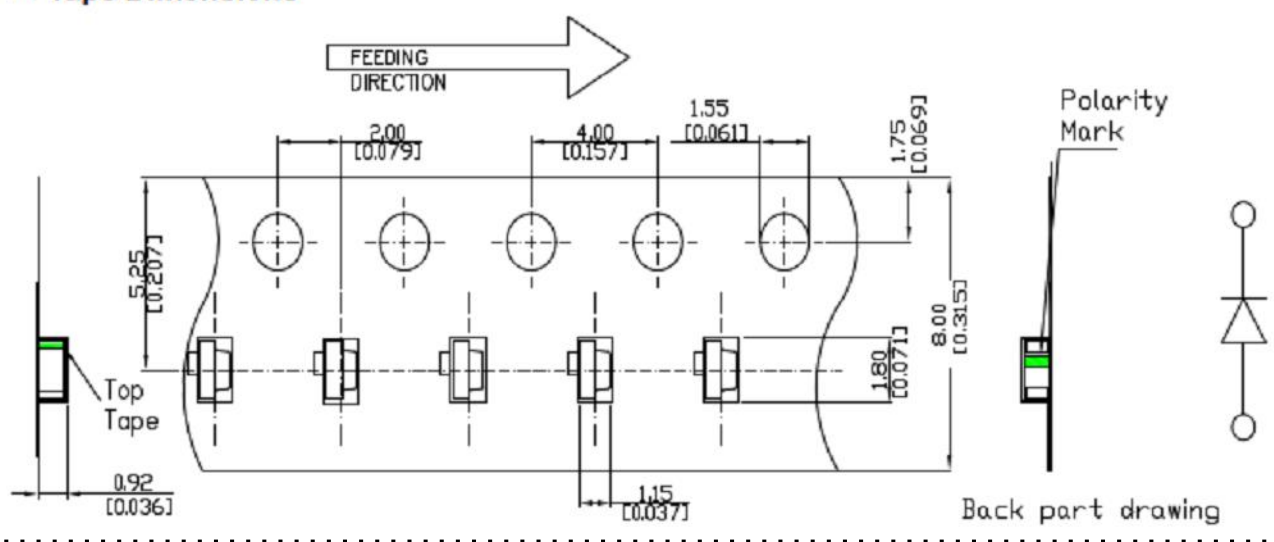
**ATTENTION:**  
OBSERVE PRECAUTIONS FOR  
HANDLING ELECTROSTATIC  
SENSITIVE DEVICES

| REV | REVISIONS  | DRN | APP | DATE     |
|-----|--|-----|-----|----------|
| A   | NEW RELEASE  | LD  | NO  | 9-24-19  |
| B   | CHANGED THE FOLLOWING DIMS:<br>.049 WAS 1.10 & .042 WAS 1.00,<br>ADDED TOP VIEW CATHODE MARK | LD  | NO  | 11-17-19 |

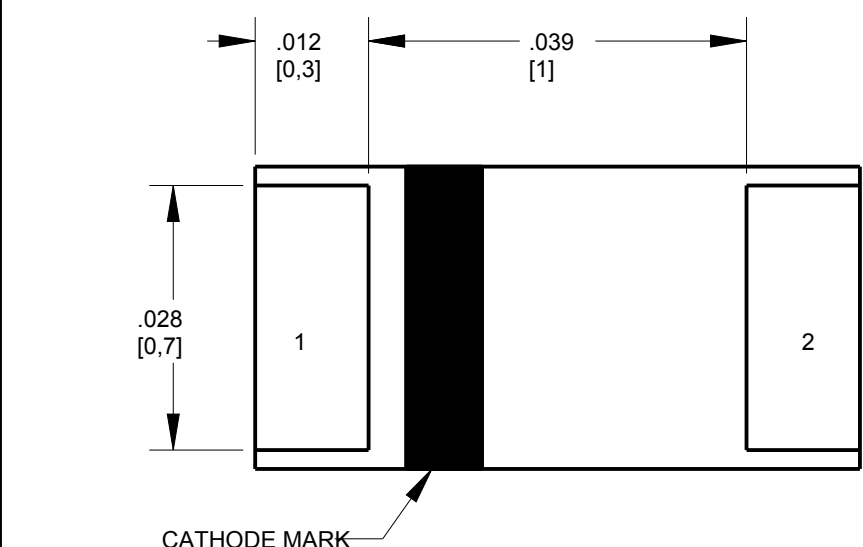
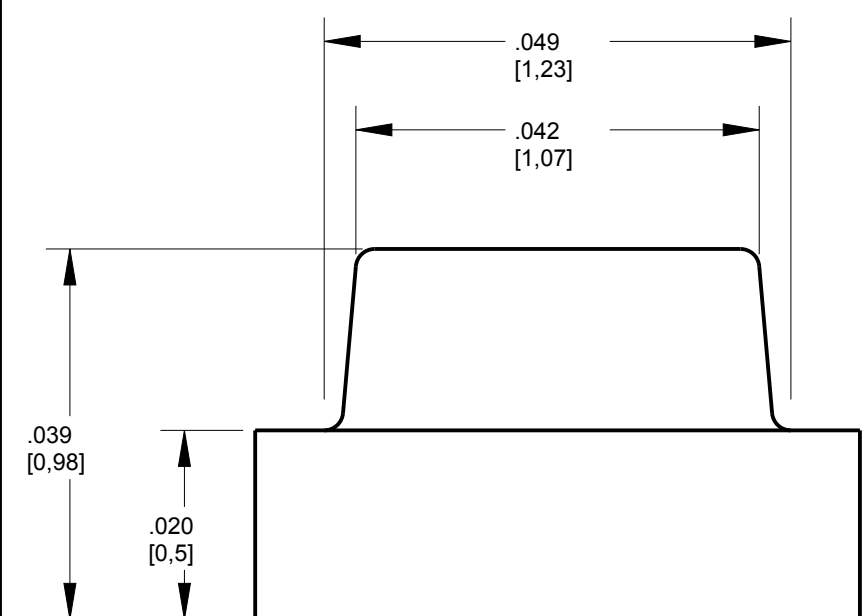
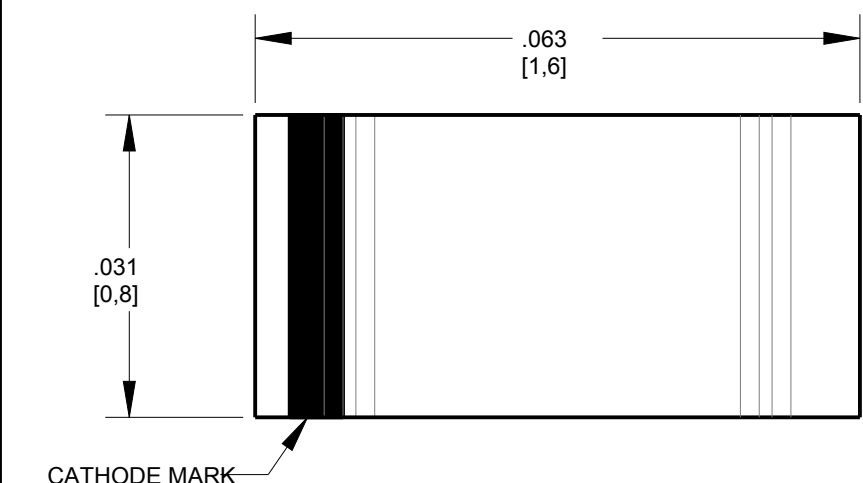
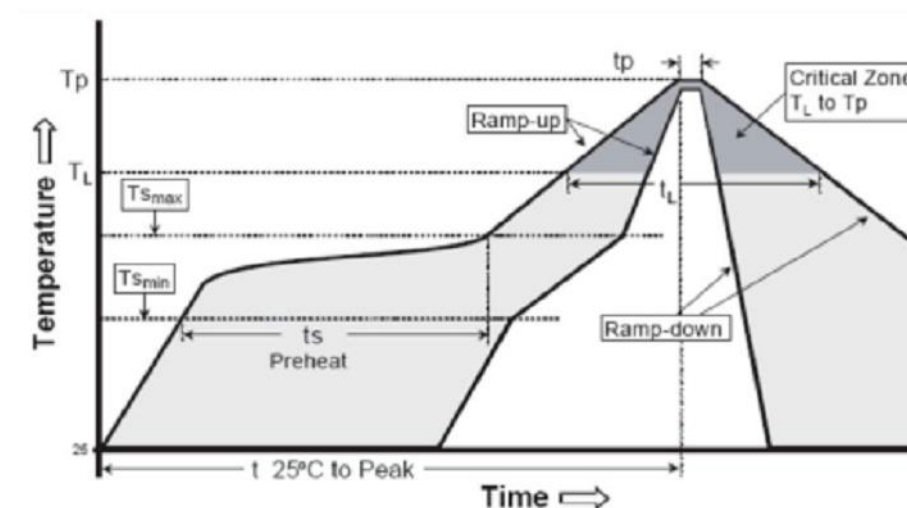
### TAPING SPECIFICATIONS

UNITS: mm  
TOLERANCE (UNLESS OTHERWISE SPECIFIED): ±0.2mm

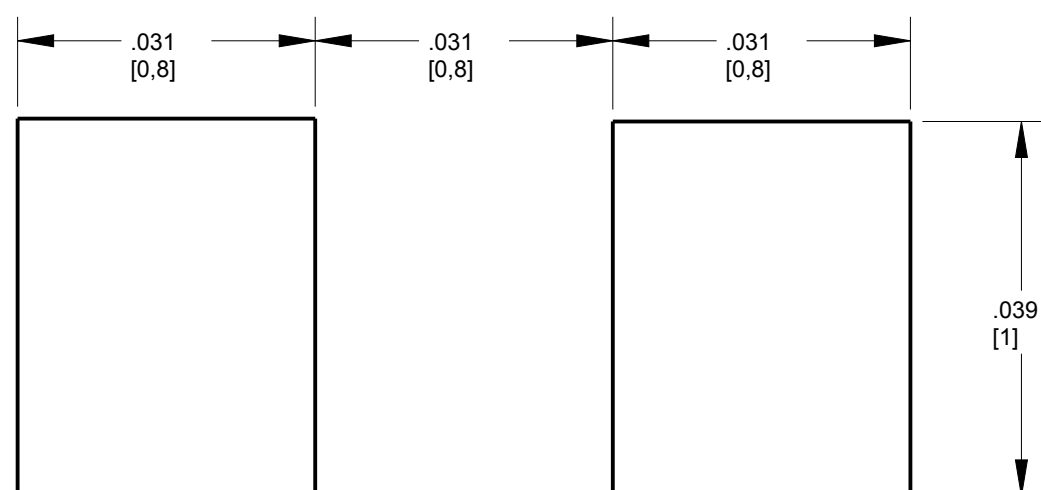
#### ■ Tape Dimensions



### RECOMMENDED RoHS SOLDER PROFILE



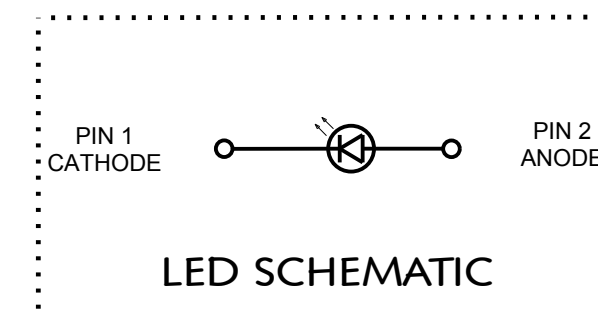
### RECOMMENDED PAD LAYOUT



| ELECTRICAL OPTICAL CHARACTERISTICS AT 25°C |                |                          |      |      |                          |      |      |                      |                               |                 |      |               |                           |
|--|----------------|--------------------------|------|------|--------------------------|------|------|----------------------|-------------------------------|-----------------|------|---------------|---------------------------|
| LED COLOR                                  | TEST CONDITION | LUMINOUS INTENSITY (mcd) |      |      | DOMINANT WAVELENGTH (nm) |      |      | REVERSE CURRENT (uA) | SPECTRAL LINE HALF-WIDTH (nm) | FORWARD VOLTAGE |      | VIEWING ANGLE | THERMAL RESISTANCE (°C/W) |
|  |                | MIN.                     | TYP. | MAX. | MIN.                     | TYP. | MAX. | MAX                  | TYP                           | TYP.            | MAX. | TYP           | MAX                       |
| RED  | 20             | 30                       | —    | 90   | 630                      | 635  | 640  | 10                   | 15                            | 1.8             | 2.4  | 140           | 450                       |
| RED ORANGE                                 |                | 150                      | 240  | 330  | 620                      | 625  | 630  |                      |                               | 1.8             | 2.4  |               |                           |
| ORANGE                                     |                | 90                       | 145  | 200  | 600                      | 605  | 610  |                      |                               | 1.8             | 2.4  |               |                           |
| YELLOW                                     |                | 120                      | 160  | 200  | 585                      | 590  | 595  |                      |                               | 1.8             | 2.4  |               |                           |
| YELLOW GREEN                               |                | 28                       | 54   | 80   | 565                      | 570  | 575  |                      |                               | 1.8             | 2.4  |               |                           |
| GREEN                                      |                | 70                       | 135  | 200  | 510                      | 525  | 535  |                      |                               | 2.8             | 3.5  |               |                           |
| BLUE                                       |                | 350                      | 440  | 530  | 460                      | 468  | 475  |                      |                               | 2.8             | 3.5  |               |                           |

| ABSOLUTE MAXIMUM RATINGS AT 25 °C |                        |                      |                           |                             |                            |                          |                          |                           |
|-----------------------------------|------------------------|----------------------|---------------------------|-----------------------------|----------------------------|--------------------------|--------------------------|---------------------------|
| LED COLOR                         | POWER DISSIPATION (mW) | FORWARD CURRENT (mA) | PEAK FORWARD CURRENT (mA) | ELECTROSTATIC DISCHARGE (V) | OPERATING TEMPERATURE (°C) | STORAGE TEMPERATURE (°C) | SOLDERING CONDITION (°C) | JUNCTION TEMPERATURE (°C) |
| RED                               | 72                     | 30                   | 60                        | 2000                        | -40 to +85                 | -40 to +100              | 260                      | 95                        |
| RED ORANGE                        |                        |                      |                           |                             |                            |                          |                          |                           |
| ORANGE                            |                        |                      |                           |                             |                            |                          |                          |                           |
| YELLOW                            |                        |                      |                           |                             |                            |                          |                          |                           |
| YELLOW GREEN                      | 105                    | 20                   | 1000                      |                             |                            |                          |                          |                           |
| GREEN                             |                        |                      |                           |                             |                            |                          |                          |                           |
| BLUE                              | 70                     |                      |                           |                             |                            |                          |                          |                           |

| MARK              | DEFINITION                                       | CONDITION      |
|-------------------|--|----------------|
| T <sub>smax</sub> | Maximum of pre-heating temperature               | 200 °C         |
| T <sub>smin</sub> | Minimum of pre-heating temperature               | 150 °C         |
| T <sub>s</sub>    | Time form T <sub>smin</sub> to T <sub>smax</sub> | 60-120 sec     |
| T <sub>L</sub>    | Reference temperature                            | 217 °C         |
| t <sub>L</sub>    | Retention time for T <sub>L</sub>                | within 60s     |
| T <sub>P</sub>    | Peak Temperature                                 | 260 °C         |
| t <sub>P</sub>    | Time for peak temperature                        | within 10s     |
| DTr/Dt            | Temperature rising rate                          | under 6 °C/sec |
| DTd/Dt            | Temperature decreasing rate                      | under 3 °C/sec |



#### NOTES:

- QUANTITY IS 4,000 PCS PER REEL.
- PIN NUMBERS ARE FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PART.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING AND STORAGE IN ACCORDANCE WITH IPC-A-610.
- THIS PRODUCT IS RoHS COMPLIANT. EACH BAG IS TO BE MARKED WITH RoHS COMPLIANT LABEL OR EQUIVALENT MARKINGS. LED MUST BE Pb FREE.

|   |                      |     |
|---|----------------------|-----|
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| DIALIGHT CORP. INTERNAL REFERENCE ONLY = 3D MODEL: 450021848X15-A-1   |                      |     |
| SCALE: 35.00  | DRAWING NUMBER       | REV |
| ALL DIMS IN: INCHES (MM)  | C18447               | B   |
| TOLERANCES: UNLESS OTHERWISE SPECIFIED  | TITLE: 0603 RT ANGLE |     |
| FRACTIONS: ±1/64  | MATERIAL:            |     |
| DECIMALS (.XX): ±0.1  | FINISH:              |     |
| DECIMALS (.XXX): ±0.05  | FSCM 83330           |     |
| DECIMALS (.XXXX): ±0.005  | SHEET 1 OF 1         |     |
| ANGLES: ±1°   | FAMILY TABLE:        |     |
|   |                      |     |
| 1501 ROUTE 34 SOUTH<br>FARMINGDALE, NJ 07727<br>(732) 919-3119<br>www.dialight.com  |                      |     |