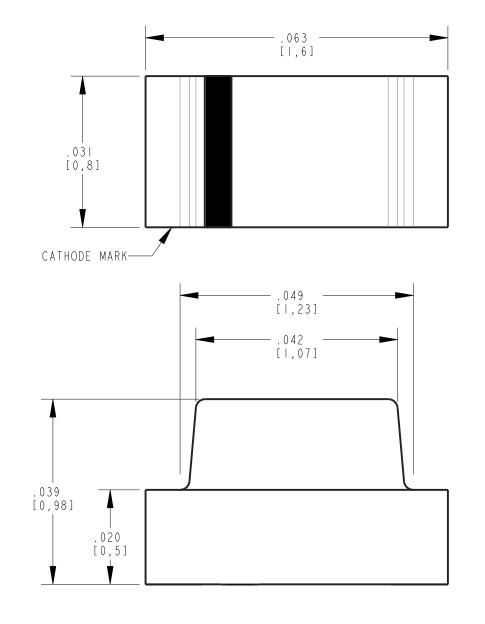
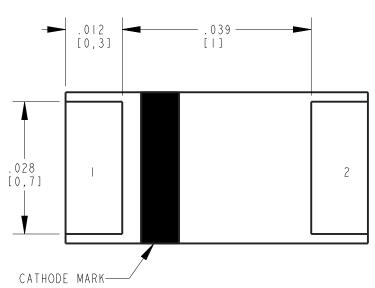
| DIALIGHT PART NO   | LED COLOR (nm)     |
|--------------------|--------------------|
| 598-8D10-102F,107F | RED (630)          |
| 598-8D20-102F,107F | RED ORANGE (625)   |
| 598-8D30-102F,107F | ORANGE (605)       |
| 598-8D40-102F,107F | YELLOW (590)       |
| 598-8D60-102F,107F | YELLOW GREEN (570) |
| 598-8D80-102F,107F | GREEN (525)        |
| 598-8D90-102F,107F | BLUE (470)         |
|                    |                    |

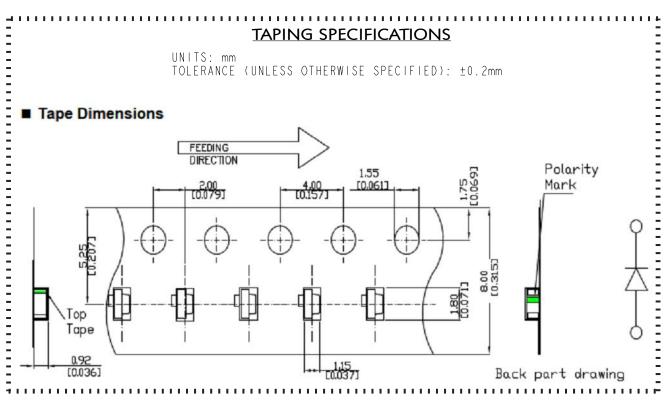




.047 [1,18]

# RECOMMENDED PAD LAYOUT .031 .031 .031 .031 .031 .031 ⊈ LED & PADLAYOUT [0,99] [0,5]



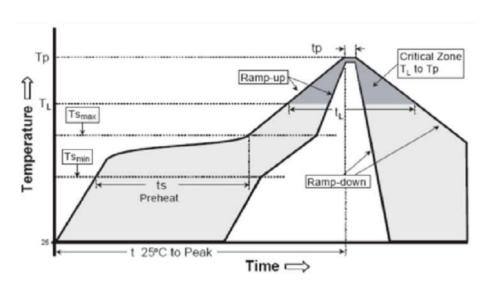


| ELECTRICAL OPTICAL CHARACTERISTICS AT 25°C |                     |      |                           |      |                                |      |                            |                                     |                              |      |  |  |     |
|--|---------------------|------|---------------------------|------|--------------------------------|------|----------------------------|-------------------------------------|------------------------------|------|--|--|-----|
| LED COLOR                                  | TEST<br>CONDITION   |      | UMINOU<br>NTENSI<br>(mcd) |      | DOMINANT<br>WAVELENGTH<br>(nm) |      | REVERSE<br>CURRENT<br>(uA) | SPECTRAL LINE<br>HALF-WIDTH<br>(nm) | FORWARD<br>VOLTAGE<br>IF=5mA |      | VIEWING<br>ANGLE<br>I <sub>F</sub> =20mA | THERMAL<br>RESISTANCE<br>IF = 20mA<br>(°C/W) |     |
|  | I <sub>F</sub> (mA) | MIN. | TYP.                      | MAX. | MIN                            | TYP. | MAX                        | MAX                                 | TYP                          | TYP. | MAX.                                     | TYP  | MAX |
| RED  |                     | 30   |                           | 90   | 630                            | 635  | 640                        |                                     |                              | 1.8  | 2.4                                      |  |     |
| RED ORANGE                                 |                     | 150  | 240                       | 330  | 620                            | 625  | 630                        |                                     |                              | 1.8  | 2.4                                      |  |     |
| ORANGE                                     |                     | 90   | 145                       | 200  | 600                            | 605  | 610                        |                                     |                              | 1.8  | 2.4                                      |  |     |
| YELLOW                                     | 20                  | 120  | 160                       | 200  | 585                            | 590  | 595                        | 10                                  | 15                           | 1.8  | 2.4                                      | 140  | 450 |
| 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                                      |  |     |

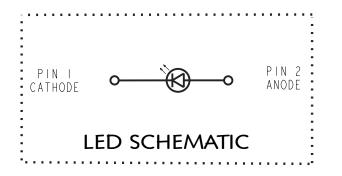
| ABSOLUTE MAXIMUM RATINGS AT 25°C |                             |                            |                                 |                                   |                                 |                               |                                |                                 |  |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

| REV | REVISIONS  | DRN | APP | DATE        |
|-----|--|-----|-----|-------------|
| А   | NEW RELEASE  | LD  | NO  | 9-24-19     |
| В   | CHANGED THE FOLLOWING DIMs:<br>.049 WAS 1.10 & .042 WAS 1.00,<br>ADDED TOP VIEW CATHODE MARK | LD  | NO  | -   7 -   9 |
| С   | CHANGED THE WAVELENGTH<br>OF 598-8D20-102F,107F<br>FROM 615nm TO 625nm                       | LD  | NO  | 2-12-21     |
| D   | REVISED PAD LAYOUT   | LD  | CS  | 5-24-23     |

#### RECOMMENDED ROHS SOLDER PROFILE



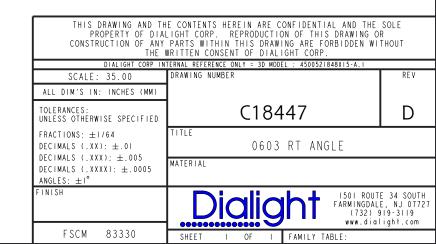
| MARK              | DEFINITION                         | CONDITION       |
|-------------------|------------------------------------|-----------------|
| TS <sub>max</sub> | Maximum of pre-heating temperature | 200 °C          |
| TS <sub>min</sub> | Minimum of pre-heating temperature | 150 °C          |
| Ts                | Time form Tsmin to Tsmax           | 60-120 sec      |
| TL                | Reference temperature              | 217 °C          |
| † <sub>L</sub>    | Retention time for TL              | within 60s      |
| T <sub>P</sub>    | Peak Temperature                   | 260 °C          |
| † <sub>P</sub>    | Time for peak temperature          | within IOs      |
| DTr/Dt            | Temperature rising rate            | under 6°C/sec   |
| DTd/D+            | Temperature decreasing rate        | under -3° C/sec |



#### NOTES:

- I. QUANTITY IS 4,000 PCS PER REEL.2. PIN NUMBERS ARE FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT
- 3. THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING AND STORAGE IN ACCORDANCE WITH IPC-A-610.

  4. THIS PRODUCT IS ROHS COMPLIANT. EACH BAG IS TO BE MARKED WITH ROHS COMPLIANT LABEL OR EQUIVALENT MARKINGS. LED MUST BE P6 FREE.





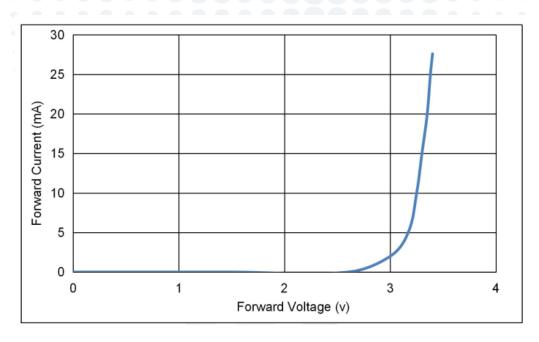


Fig 1-6 Forward Voltage Vs Forward Current

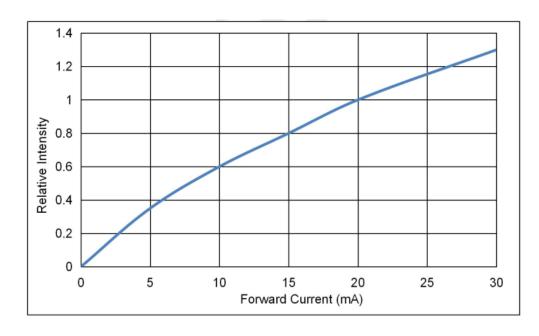


Fig 1-7 Forward Current Vs Relative Intensity



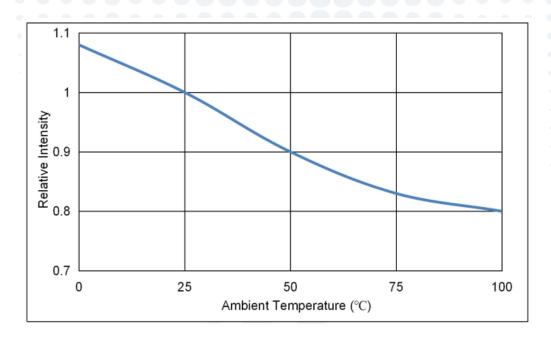


Fig 1-8 Pin Temperature Vs Relative Intensity

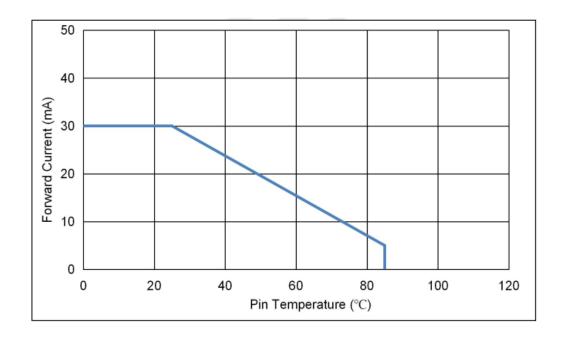


Fig 1-9 Pin Temperature Vs Forward Current



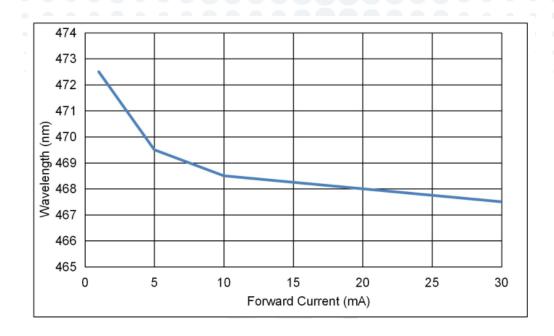


Fig 1-10 Forward Current Vs Dominate Wavelength (Ta=25℃)

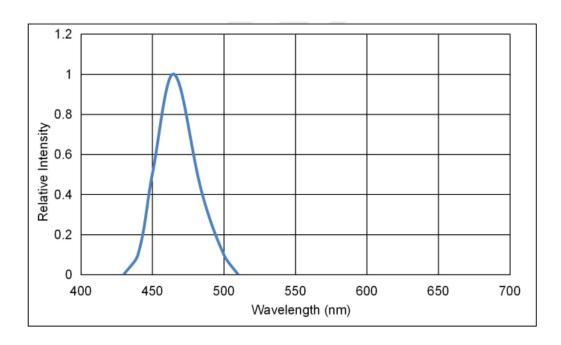


Fig 1-11 Relative Intensity Vs Wavelength (Ta=25°C)



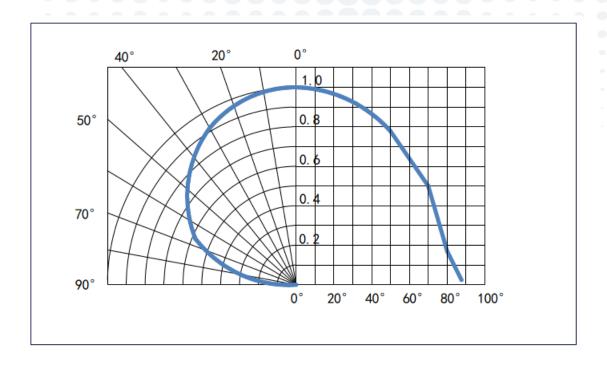


Fig 1-12 Diagram characteristics of radiation