

The technical drawing consists of two parts. The top part is a side view of a carrier tape with dimensions: .157 [4.0], .079 [2.0], .0591 + .0039 [1.5 + .10] - .0000, .069 [1.75], 1.032 [26.20], 2.205 ± .011 [56.0 ± 0.3], 2.063 [52.40], .787 [20.0], and 0.0591 + .0039 [1.5 + .10] - .0000. An arrow indicates the 'Direction of feed'. The bottom part is a detailed view of the tape layout, showing an 'ALUMINUM BARRIER BAG' and a 'MOISTURE SENSITIVITY LEVEL LABEL' (LEVEL 2). It also shows three positions for LEDs: 'POSITION 1 TOP LED COLOR DOT', 'POSITION 2 MIDDLE LED COLOR DOT', and 'POSITION 3 BOTTOM LED COLOR DOT'. A 'RoHS COMPLIANT' label is shown with a crossed-out Pb symbol. A 'PART NO.' and 'QTY.' label is shown with a 'BOM' (Bill of Materials) label. A 'CAUTION' label is shown with the text: 'The bag contains MOISTURE SENSITIVE OPTO SEMICONDUCTORS'. The label also contains a list of instructions: 1. Shelf life in sealed bag: 24 months at <40°C and <90% relative humidity (RH). 2. After bag is opened, devices that will be subjected to infrared reflow, vapor-phase reflow, or equivalent processing must be: a) Rinsed within 1 hour of factory conditions at 20-25°C/60% RH, b) stored at < 30 ± RH. 3. Devices require baking, before mounting, if: a) Humidity Indicator Card (HIC) is = 300 when read at 23°C ± 5°C, or b) 24 or 20 or 15 and met. 4. If baking is required, devices may be baked for 48 hours at 60°C ± 5°C and < 5% RH. Seal date see bar code label. Date and time opened: \_\_\_\_\_.

RoHS COMPLIANT LABEL  
SEE NOTE 6

P/N LABEL (P/N PER "BOM")

- \* 5 PCS. SAMPLE STRIP ON 56MM WIDE CARRIER TAPE
- \* STRIP PLACED IN ALUMINUM BARRIER BAG.
- \* LABEL TO INCLUDE P/N, QTY. PER BAG, MFG DATE, LED LOT NO., LED COLOR, LED BIN INTENSITY FOR BOTH LED'S

- 1- PRODUCT P/N WITH "F" SUFFIX ENDING IS RoHS COMPLIANT.  
LED LEADS ARE PLATED TIN (Sn), NICKEL (Ni) UNDERPLATE  
ON COPPER (Cu) LEADS.
- 2- STORAGE OF TAPED PARTS SHALL NOT EXCEED TWELVE (12)  
MONTHS AFTER WHICH RE-PACKAGING IS REQUIRED.
- 3- FRONT AND REAR TERMINALS [OF EACH LED] OF THE  
ASSEMBLY TO BE WITHIN .005 COPLANARITY.
- 4- MOISTURE SENSITIVITY LEVEL  
A LABEL WILL BE PLACED ON THE BAG -  
CHECK CHART FOR PROPER LEVEL
- 5- \*\*\* CAUTION \*\*\*  
FOR PRODUCTS THAT ARE ESD SENSITIVE OBSERVE  
PRECAUTIONS IN HANDLING ELECTROSTATIC SENSITIVE  
DEVICES. FOR EYE SAFETY DO NOT STARE DIRECTLY INTO  
THE LIGHT BEAM OF THESE LED DEVICES AT CLOSE RANGE.
- 6- THIS PRODUCT IS RoHS COMPLIANT. EACH BAG IS MARKED  
WITH RoHS COMPLIANT LABEL (P/N PER BOM) OR  
EQUIVALENT MARKINGS. LED MUST BE Pb FREE (RoHS COMPLIANT).
- 7- DIALIGHT PART NUMBERS:  
593-XXXXXX-002F-1 PC PACKED IN A SAMPLE STRIP OF (5 PCS/STRIP)  
593-XXXXXX-013F-1 PC PACKED IN A FULL 13" REEL (150 PCS/REEL)



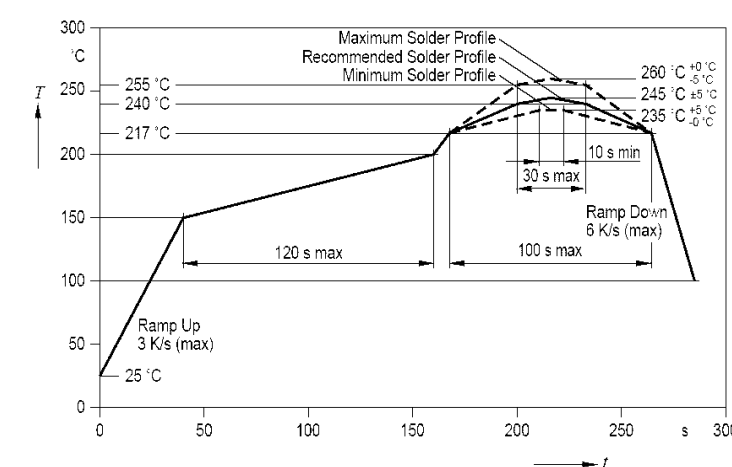
**ATTENTION:**  
OBSERVE PRECAUTIONS FOR  
HANDLING ELECTROSTATIC  
SENSITIVE DEVICES

The diagram shows a circular vacuum sealed bag with various components inside. Labels point to specific features:

- POSITION 1 TOP LED COLOR DOT**: Points to a small circle at the top left.
- POSITION 2 MIDDLE LED COLOR DOT**: Points to a small circle in the middle left.
- POSITION 3 BOTTOM LED COLOR DOT**: Points to a small circle at the bottom left.
- CARRIER**: Points to a carrier tape at the top right.
- REEL 13"**: Points to the circular bag.
- LABEL**: Points to a rectangular label at the bottom center.

Inside the bag, there are several components: a fan-shaped LED array at the top, a small circular component in the center, and two elongated, ribbed components on the left and right sides.

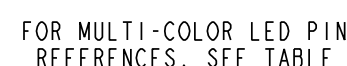
- \* 13" REEL PER EIA STANDARD 481-2 ON 56MM WIDE CARRIER TAPE
- \* QUANTITY = 150 Pcs/REEL IN VACUUM SEALED BAG
- \* LABEL AND COLOR DOTS ON REEL AND ON BAG
- \* LABEL TO INCLUDE P/N, QTY. PER BAG, MFG DATE  
LED LOT No, LED COLOR, LED BIN INTENSITY FOR ALL LED'S  
CORNER OF LABEL ON REEL INDICATES MOISTURE SENSITIVITY LEVEL  
ALUMINUM BARRIER BAG INCLUDES MSL LABEL



HOUSING SURFACE PERMITTED  
TO BE .007 [0,17] MAX ABOVE  
SURFACE "A" LED LEADS

HOUSING SURFACE PERMITTED  
- TO BE .004 [0,1] MAX BELOW  
SURFACE "A" LED LEADS

DETAIL A  
SCALE 10.000

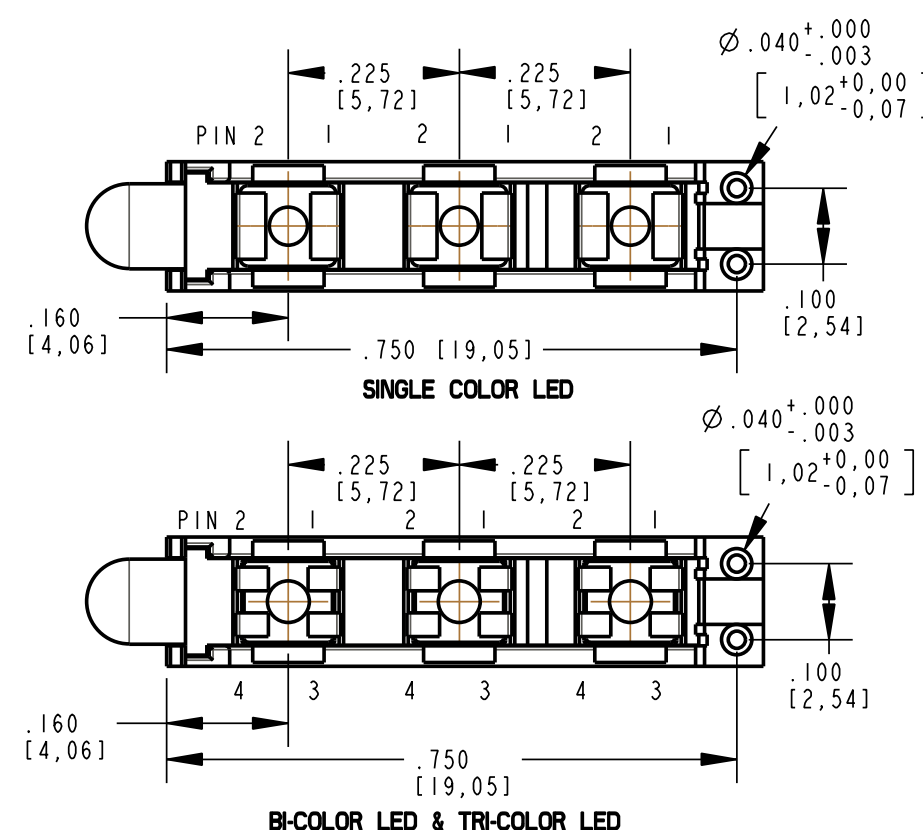
[illegible]

PIN 1 = CATHODE  
PIN 2 = ANODE

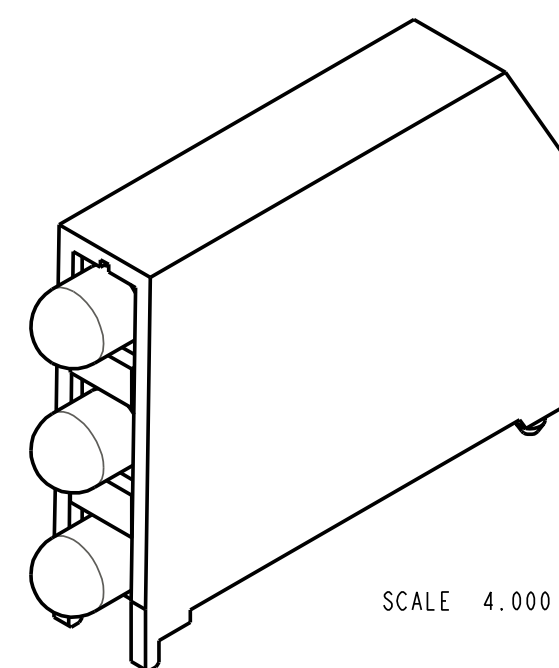
Technical drawing of a cathode lead (angled) showing dimensions and callouts. The drawing includes the following dimensions and features:

- Top horizontal dimension: .785 [19,94]
- Left vertical dimension: .105 [2,67]
- Left vertical dimension: .100 REF [2,54]
- Left vertical dimension: .040 [1,02]
- Bottom horizontal dimension: .025 [0,64]
- Bottom horizontal dimension: .738 [18,73]
- Right vertical dimension: .594 [15,07]
- Bottom right vertical dimension: .040 [1,02]
- Callout: CATHODE LEAD (ANGLED) S
- Callout: SEE DETAIL A

SEE DETAIL A-



BI-COLOR LED &amp; TRI-COLOR LED



SCALE 4 000

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|                                           |  |                                                                                                                                    |  |     |  |
|-------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------|--|-----|--|
| SCALE: 1.000                              |  | DRAWING NUMBER                                                                                                                     |  | REV |  |
| ALL DIM'S IN: INCHES (MM)                 |  | C-17270                                                                                                                            |  | B   |  |
| TOLERANCES:<br>UNLESS OTHERWISE SPECIFIED |  | TITLE                                                                                                                              |  |     |  |
| FRACTIONS: ±1/64                          |  | TRI-LEVEL PRISM                                                                                                                    |  |     |  |
| DECIMALS (.)XX: ±.01                      |  | MATERIAL                                                                                                                           |  |     |  |
| DECIMALS (.XXX): ±.005                    |  | RoHS COMPLIANT                                                                                                                     |  |     |  |
| DECIMALS (XXXX): ±.0005                   |  |                                                                                                                                    |  |     |  |
| ANGLES: ±1°                               |  |                                                                                                                                    |  |     |  |
| FINISH:                                   |  |  1501 ROUTE 34 SOUTH<br>FARMINGDALE, NJ 07727 |  |     |  |
| FSCM 833330                               |  | SHEET 1 OF 2 FAMILY TABLE:                                                                                                         |  |     |  |

|                                    |                      |                      |                      |                   |                         | MULTI-COLOR LED<br>PIN REFERENCES |                 |                  |                   | LUMINOUS<br>INTENSITY<br>I <sub>v</sub> (mcd) @ I <sub>f</sub> = 20mA<br>TYP. |          |          | DOMINANT<br>WAVELENGTH<br>λ (nm) TYP. |                   |                   | FORWARD<br>VOLTAGE<br>V <sub>F</sub> TYP. |                    |                    |
|------------------------------------|----------------------|----------------------|----------------------|-------------------|-------------------------|-----------------------------------|-----------------|------------------|-------------------|-------------------------------------------------------------------------------|----------|----------|---------------------------------------|-------------------|-------------------|-------------------------------------------|--------------------|--------------------|
| PART NUMBER                        | POSITION 1           | POSITION 2           | POSITION 3           | MOISTURE<br>LEVEL | PAD LAYOUT<br>REFERENCE | PIN 1                             | PIN 2           | PIN 3            | PIN 4             | POS<br>1                                                                      | POS<br>2 | POS<br>3 | POS<br>1                              | POS<br>2          | POS<br>3          | POS<br>1                                  | POS<br>2           | POS<br>3           |
| 593-202020-002F<br>593-202020-013F | RED                  | RED                  | RED                  | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 6                                                                             | 6        | 6        | 628                                   | 628               | 628               | 2.0                                       | 2.0                | 2.0                |
| 593-202024-002F<br>593-202024-013F | RED                  | RED                  | YELLOW               | 2                 | FIG. 2                  | NOT APPLICABLE                    |                 |                  |                   | 6                                                                             | 6        | 11       | 628                                   | 628               | 587               | 2.0                                       | 2.0                | 2.0                |
| 593-212121-002F<br>593-212121-013F | AlGaAs RED           | AlGaAs RED           | AlGaAs RED           | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 29                                                                            | 29       | 29       | 645                                   | 645               | 645               | 1.75                                      | 1.75               | 1.75               |
| 593-212130-002F<br>593-212130-013F | AlGaAs RED           | AlGaAs RED           | SUPER RED<br>GREEN   | 2                 | FIG. 1<br>& FIG. 2      | RED<br>CATHODE                    | RED<br>ANODE    | GREEN<br>ANODE   | GREEN<br>CATHODE  | 29                                                                            | 29       | 7<br>10  | 645                                   | 645               | 628<br>570        | 1.75                                      | 1.75               | 2.0                |
| 593-222221-002F<br>593-222221-013F | GREEN                | GREEN                | AlGaAs RED           | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 16                                                                            | 16       | 29       | 570                                   | 570               | 645               | 2.0                                       | 2.0                | 1.75               |
| 593-222222-002F<br>593-222222-013F | GREEN                | GREEN                | GREEN                | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 16                                                                            | 16       | 16       | 570                                   | 570               | 570               | 2.0                                       | 2.0                | 2.0                |
| 593-232323-002F<br>593-232323-013F | GREEN                | GREEN                | GREEN                | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 11                                                                            | 11       | 11       | 570                                   | 570               | 570               | 2.0                                       | 2.0                | 2.0                |
| 593-242424-002F<br>593-242424-013F | YELLOW               | YELLOW               | YELLOW               | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 11                                                                            | 11       | 11       | 587                                   | 587               | 587               | 2.0                                       | 2.0                | 2.0                |
| 593-262626-002F<br>593-262626-013F | BLUE                 | BLUE                 | BLUE                 | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 7                                                                             | 7        | 7        | 465                                   | 465               | 465               | 3.5                                       | 3.5                | 3.5                |
| 593-272129-002F<br>593-272129-013F | AlInGaP YELLOW       | AlGaAs RED           | InGaN GREEN          | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 80                                                                            | 29       | TBD      | 587                                   | 645               | 525               | 2.0                                       | 1.75               | 3.7                |
| 593-272727-002F<br>593-272727-013F | AlInGaP YELLOW       | AlInGaP YELLOW       | AlInGaP YELLOW       | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 80                                                                            | 80       | 80       | 587                                   | 587               | 587               | 2.0                                       | 2.0                | 2.0                |
| 593-282828-002F<br>593-282828-013F | WHITE                | WHITE                | WHITE                | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | 85                                                                            | 85       | 85       | X=0.33<br>Y=0.33                      | X=0.33<br>Y=0.33  | X=0.33<br>Y=0.33  | 3.5                                       | 3.5                | 3.5                |
| 593-292929-002F<br>593-292929-013F | InGaN GREEN          | InGaN GREEN          | InGaN GREEN          | 2                 | FIG. 1                  | NOT APPLICABLE                    |                 |                  |                   | TBD                                                                           | TBD      | TBD      | 525                                   | 525               | 525               | 3.7                                       | 3.7                | 3.7                |
| 593-303030-002F<br>593-303030-013F | SUPER RED<br>GREEN   | SUPER RED<br>GREEN   | SUPER RED<br>GREEN   | 2                 | FIG. 2                  | RED<br>CATHODE                    | RED<br>ANODE    | GREEN<br>ANODE   | GREEN<br>CATHODE  | 7<br>10                                                                       | 7<br>10  | 7<br>10  | 628<br>570                            | 628<br>570        | 628<br>570        | 2.0                                       | 2.0                | 2.0                |
| 593-313131-002F<br>593-313131-013F | YELLOW<br>GREEN      | YELLOW<br>GREEN      | YELLOW<br>GREEN      | 2                 | FIG. 2                  | YELLOW<br>CATHODE                 | YELLOW<br>ANODE | GREEN<br>ANODE   | GREEN<br>CATHODE  | 6<br>10                                                                       | 6<br>10  | 6<br>10  | 590<br>570                            | 590<br>570        | 590<br>570        | 2.0                                       | 2.0                | 2.0                |
| 593-323232-002F<br>593-323232-013F | SUPER-RED<br>YELLOW  | SUPER-RED<br>YELLOW  | SUPER-RED<br>YELLOW  | 2                 | FIG. 2                  | RED<br>CATHODE                    | RED<br>ANODE    | YELLOW<br>ANODE  | YELLOW<br>CATHODE | 9<br>6                                                                        | 9<br>6   | 9<br>6   | 628<br>590                            | 628<br>590        | 628<br>590        | 2.0                                       | 2.0                | 2.0                |
| 593-353535-002F<br>593-353535-013F | BLUE<br>GREEN<br>RED | BLUE<br>GREEN<br>RED | BLUE<br>GREEN<br>RED | 2                 | FIG. 2                  | RED<br>CATHODE                    | COMMON<br>ANODE | GREEN<br>CATHODE | BLUE<br>CATHODE   | TBD                                                                           | TBD      | TBD      | 466<br>570<br>645                     | 466<br>570<br>645 | 466<br>570<br>645 | 3.5<br>2.0<br>1.75                        | 3.5<br>2.0<br>1.75 | 3.5<br>2.0<br>1.75 |

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| SCALE: 3.000                                                                                                                                                                                                                  | DRAWING NUMBER                                        | REV           |
| ALL DIM'S IN: INCHES (MM)                                                                                                                                                                                                     | C-17270                                               | B             |
| TOLERANCES:<br>UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                     | TITLE TRI-LEVEL PRISM                                 |               |
| FRACTIONS: ±1/64<br>DECIMALS (.XX): ±.01<br>DECIMALS (.XXX): ±.005<br>DECIMALS (.XXXX): ±.0005<br>ANGLES: ±1°                                                                                                                 | MATERIAL ROHS COMPLIANT                               |               |
| FINISH:<br>-                                                                                                                                                                                                                  | Dialight 1501 ROUTE 34 SOUTH<br>FARMINGDALE, NJ 07727 |               |
| FSCM 83330                                                                                                                                                                                                                    | SHEET 2 OF 2                                          | FAMILY TABLE: |