

| ASSY. NO.<br>(CAT. NO.) | LED COLOR  |            | NOTES |
|-------------------------|------------|------------|-------|
|                         | POSITION 1 | POSITION 2 |       |
| 553-0101F               | BLANK      | RED        |       |
| 553-0102F               | BLANK      | GREEN      |       |
| 553-0103F               | BLANK      | YELLOW     |       |
| 553-0107F               | BLANK      | ORANGE     |       |
| 553-0108F               | BLANK      | BLUE       | **    |
| 553-0110F               | RED        | BLANK      |       |
| 553-0111F               | RED        | RED        |       |
| 553-0112F               | RED        | GREEN      |       |
| 553-0113F               | RED        | YELLOW     |       |
| 553-0118F               | RED        | BLUE       | **    |
| 553-0120F               | GREEN      | BLANK      |       |
| 553-0121F               | GREEN      | RED        |       |
| 553-0122F               | GREEN      | GREEN      |       |
| 553-0123F               | GREEN      | YELLOW     |       |
| 553-0128F               | GREEN      | BLUE       | **    |
| 553-0130F               | YELLOW     | BLANK      |       |
| 553-0131F               | YELLOW     | RED        |       |
| 553-0132F               | YELLOW     | GREEN      |       |
| 553-0133F               | YELLOW     | YELLOW     |       |
| 553-0181F               | BLUE       | RED        |       |
| 553-0182F               | BLUE       | GREEN      | **    |
| 553-0188F               | BLUE       | BLUE       | **    |
| 553-0199F               | WHITE      | WHITE      | */**  |
| 553-0201F               | BLANK      | RED        | *     |
| 553-0202F               | BLANK      | GREEN      | *     |
| 553-0203F               | BLANK      | YELLOW     | *     |
| 553-0210F               | RED        | BLANK      | *     |
| 553-0211F               | RED        | RED        | *     |
| 553-0212F               | RED        | GREEN      | *     |
| 553-0213F               | RED        | YELLOW     | *     |
| 553-0220F               | GREEN      | BLANK      | *     |
| 553-0221F               | GREEN      | RED        | *     |
| 553-0222F               | GREEN      | GREEN      | *     |
| 553-0223F               | GREEN      | YELLOW     | *     |
| 553-0230F               | YELLOW     | BLANK      | *     |
| 553-0231F               | YELLOW     | RED        | *     |
| 553-0232F               | YELLOW     | GREEN      | *     |
| 553-0233F               | YELLOW     | YELLOW     | *     |
| 553-0301F               | BLANK      | RED        | *     |
| 553-0302F               | BLANK      | GREEN      | *     |
| 553-0303F               | BLANK      | YELLOW     | *     |
| 553-0310F               | RED        | BLANK      | *     |
| 553-0311F               | RED        | RED        | *     |
| 553-0312F               | RED        | GREEN      | *     |
| 553-0313F               | RED        | YELLOW     | *     |
| 553-0320F               | GREEN      | BLANK      | *     |
| 553-0321F               | GREEN      | RED        | *     |
| 553-0322F               | GREEN      | GREEN      | *     |
| 553-0323F               | GREEN      | YELLOW     | *     |
| 553-0331F               | YELLOW     | RED        | *     |
| 553-0332F               | YELLOW     | GREEN      | *     |
| 553-0333F               | YELLOW     | YELLOW     | *     |

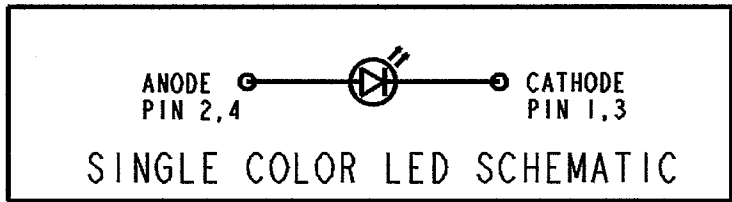
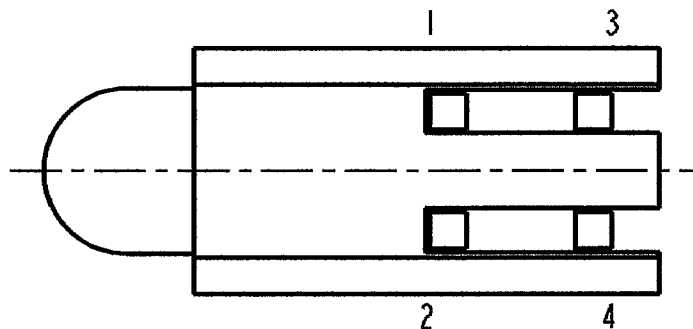
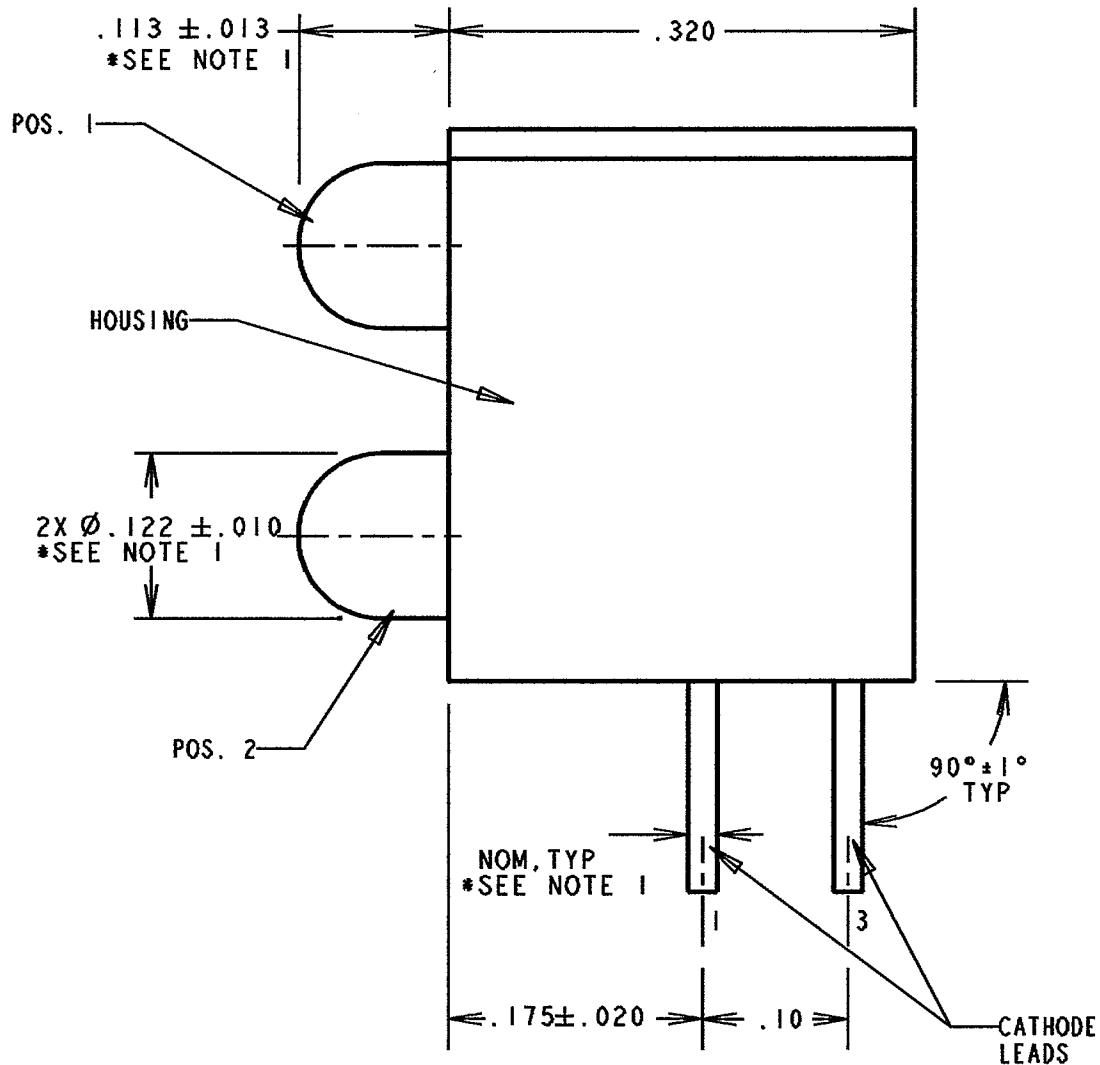
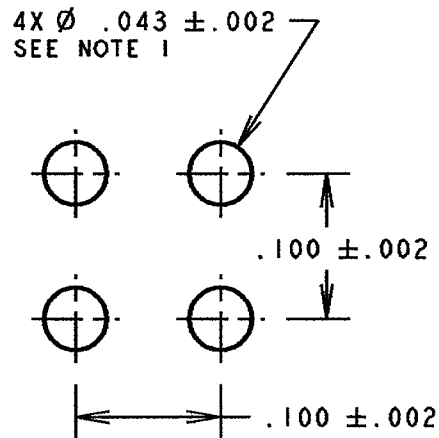
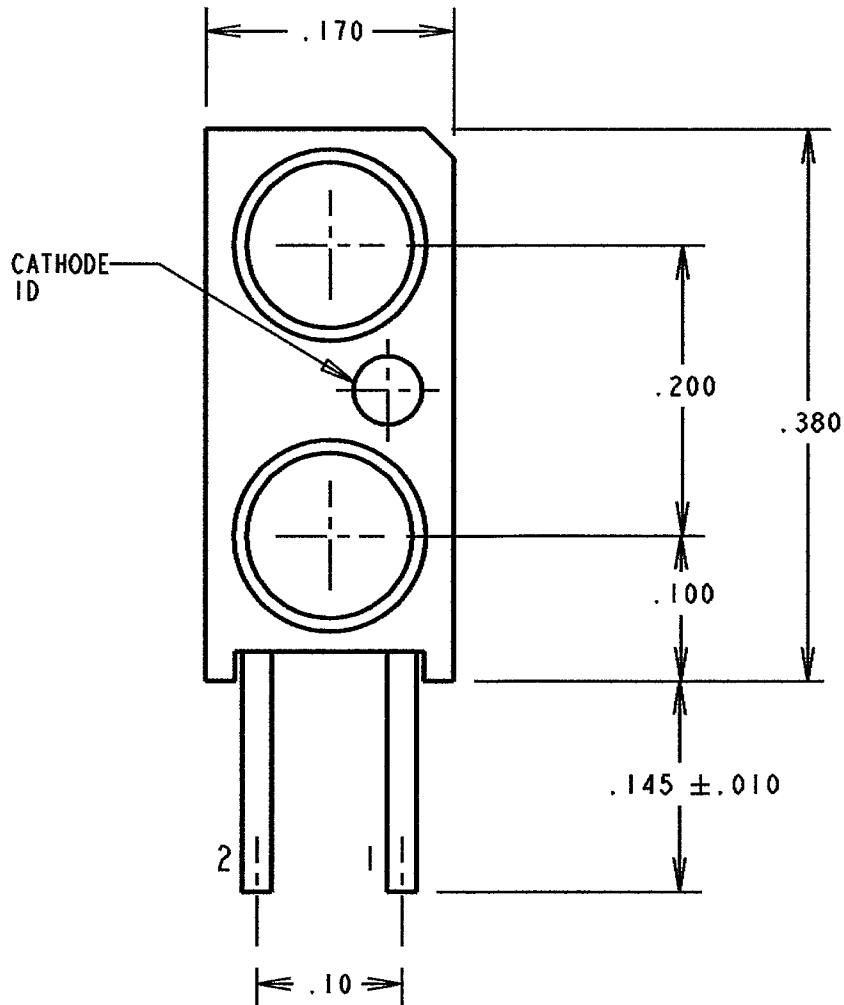
| 20mA WHITE LED<br>OPERATING CHARACTERISTICS AT T <sub>A</sub> = 25°C |                    |      |     |      |                      |
|----------------------------------------------------------------------|--------------------|------|-----|------|----------------------|
| SYMBOL                                                               | PARAMETER          | MIN  | TYP | MAX  | UNITS                |
| V <sub>F</sub>                                                       | FORWARD VOLTAGE    |      | 3.2 | 3.7  | V                    |
| I <sub>R</sub>                                                       |                    | 10   |     |      | uA                   |
| I <sub>V</sub>                                                       | LUMINOUS INTENSITY | 1150 |     | 2500 | mc d                 |
|                                                                      |                    |      |     |      | I <sub>F</sub> =20mA |

| BIN | LIMITS (WHITE LED)<br>(CHROMATICITY COORDINATES) |       |       |       |   |
|-----|--------------------------------------------------|-------|-------|-------|---|
|     | X                                                | Y     | Z     | U     | V |
| 1   | 0.330                                            | 0.330 | 0.356 | 0.361 |   |
|     | 0.360                                            | 0.318 | 0.351 | 0.385 |   |
| 2   | 0.287                                            | 0.296 | 0.330 | 0.330 |   |
|     | 0.295                                            | 0.276 | 0.318 | 0.339 |   |
| 3   | 0.264                                            | 0.280 | 0.296 | 0.283 |   |
|     | 0.267                                            | 0.248 | 0.276 | 0.305 |   |
| 4   | 0.283                                            | 0.287 | 0.330 | 0.330 |   |
|     | 0.305                                            | 0.295 | 0.339 | 0.360 |   |

| 10 ma LED.<br>OPERATING CHARACTERISTICS AT T <sub>A</sub> = 25°C |                    |        |     |      |     |       |
|------------------------------------------------------------------|--------------------|--------|-----|------|-----|-------|
| SYMBOL                                                           | PARAMETER          | COLOR  | MIN | TYP  | MAX | UNITS |
| V <sub>F</sub>                                                   | FORWARD VOLTAGE    | RED    |     | 2.0  | 3.0 | V     |
|                                                                  |                    | YELLOW |     | 2.1  | 3.0 |       |
|                                                                  |                    | GREEN  |     | 2.1  | 3.0 |       |
|                                                                  |                    | BLUE   |     | 3.5  | 4.2 |       |
| V <sub>R</sub>                                                   |                    | ALL    | 3   |      |     | V     |
| λ <sub>PK</sub>                                                  | PEAK WAVELENGTH    | RED    |     | 650  |     | nm    |
|                                                                  |                    | YELLOW |     | 585  |     |       |
|                                                                  |                    | GREEN  |     | 563  |     |       |
|                                                                  |                    | BLUE   |     | 428  |     |       |
| I <sub>V</sub>                                                   | LUMINOUS INTENSITY | RED    | 3.6 | 10.0 |     | mc d  |
|                                                                  |                    | YELLOW | 2.2 | 6.3  |     |       |
|                                                                  |                    | GREEN  | 5.6 | 16.0 |     |       |
|                                                                  |                    | BLUE   | 6.3 |      | 20  |       |

| 2 ma LOW CURRENT LED.<br>OPERATING CHARACTERISTICS AT T <sub>A</sub> = 25°C |                    |        |     |     |     |       |
|-----------------------------------------------------------------------------|--------------------|--------|-----|-----|-----|-------|
| SYMBOL                                                                      | PARAMETER          | COLOR  | MIN | TYP | MAX | UNITS |
| V <sub>F</sub>                                                              | FORWARD VOLTAGE    | RED    |     | 1.7 | 2.2 | V     |
|                                                                             |                    | YELLOW |     | 1.8 | 2.7 |       |
|                                                                             |                    | GREEN  |     | 1.9 | 2.2 |       |
|                                                                             |                    | ALL    | 5   |     |     |       |
| V <sub>R</sub>                                                              |                    | ALL    | 5   |     |     | V     |
| λ <sub>PK</sub>                                                             | PEAK WAVELENGTH    | RED    |     | 635 |     | nm    |
|                                                                             |                    | YELLOW |     | 583 |     |       |
|                                                                             |                    | GREEN  |     | 565 |     |       |
|                                                                             |                    | ALL    |     |     |     |       |
| I <sub>V</sub>                                                              | LUMINOUS INTENSITY | RED    | 1.0 | 1.6 |     | mc d  |
|                                                                             |                    | YELLOW | 1.0 | 1.6 |     |       |
|                                                                             |                    | GREEN  | 1.0 | 1.6 |     |       |
|                                                                             |                    | ALL    |     |     |     |       |

| 5 V., INTEGRAL RESISTOR LED<br>OPERATING CHARACTERISTICS AT T <sub>A</sub> = 25°C |                    |        |     |      |     |       |
|-----------------------------------------------------------------------------------|--------------------|--------|-----|------|-----|-------|
| SYMBOL                                                                            | PARAMETER          | COLOR  | MIN | TYP  | MAX | UNITS |
| V <sub>F</sub>                                                                    | FORWARD VOLTAGE    | RED    |     | 10   | 20  | mA    |
|                                                                                   |                    | YELLOW |     | 10   | 20  |       |
|                                                                                   |                    | GREEN  |     | 10   | 20  |       |
|                                                                                   |                    | ALL    | 5   |      |     |       |
| V <sub>R</sub>                                                                    |                    | ALL    | 5   |      |     | V     |
| λ <sub>PK</sub>                                                                   | PEAK WAVELENGTH    | RED    |     | 635  |     | nm    |
|                                                                                   |                    | YELLOW |     | 585  |     |       |
|                                                                                   |                    | GREEN  |     | 565  |     |       |
|                                                                                   |                    | ALL    |     |      |     |       |
| I <sub>V</sub>                                                                    | LUMINOUS INTENSITY | RED    | 8.7 | 29   |     | mc d  |
|                                                                                   |                    | YELLOW | 3.7 | 12.6 |     |       |
|                                                                                   |                    | GREEN  | 5.6 | 19   |     |       |
|                                                                                   |                    | ALL    |     |      |     |       |



| REV | ECN NO | REVISIONS                                               | DRN | CKD  | APP  | DATE     |
|-----|--------|---------------------------------------------------------|-----|------|------|----------|
| A   | —      | NEW RELEASE                                             | TWC | MES  | N.O. | 8-5-05   |
| B   | —      | ADDED P/N 553-0181F                                     | SM  | N.O. | MES  | 11-13-06 |
| C   | —      | CHANGED IN SIDE VIEW POS 3 TO POS 2                     | SM  | N.O. | MES  | 11-17-06 |
| D   | —      | ADDED P/N 553-0199F & NOTE 4                            | SM  | N.O. | MES  | 5-1-07   |
| E   | —      | OPERATING CHARACTERISTICS TABLE CORRECTED FOR WHITE LED | SM  | N.O. | MES  | 5-22-07  |
| F   | —      | UPDATED WHITE LED SPECS                                 | KLJ | N.B. | 7/20 | 2-7-08   |

NOTE:

- \*DENOTES PARTS WITH LED PROTRUSION OF .103 ± .013, WITH LEADS .018 SQ.NOM., LED BODY Ø.115 ± .010 AND THE PC BOARD RECOMMENDED HOLE SIZE IS Ø.040 ± .002.
- DIALIGHT PART NUMBER: 553-0XXXX
- PIN NUMBER FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PARTS.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING AND STORAGE IN ACCORDANCE WITH IPC-A-610.



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

#### RoHS Compliant 553-0xxxF Thru hole Bi-level CBI

Part Numbers with the "F" suffix ending are RoHS Compliant.  
Example: 553-0101F, 553-0333F  
The bag packaging is marked with "RoHS Compliant" label or equivalent markings.  
Parts can be wave soldered, dip soldered or hand soldered using typical lead-free soldering process with max 260°C temp. for 5 sec.

|                                                                                                                                                                                                                                        |                                              |                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| THIS DRAWING AND THE CONTENTS HEREIN ARE CONFIDENTIAL AND<br>THE SOLE PROPERTY OF DIALIGHT. REPRODUCTION OF THIS DRAWING<br>OR CONSTRUCTION OF ANY PARTS WITHIN THIS DRAWING ARE<br>FORBIDDEN WITHOUT THE WRITTEN CONSENT OF DIALIGHT. |                                              |                                              |
| SCALE: DRAWING SCALE<br>ALL DIM'S IN: INCHES (MM)                                                                                                                                                                                      | DRAWING NUMBER<br>C-17277                    | REV<br>F                                     |
| TOLERANCES:<br>UNLESS OTHERWISE SPECIFIED<br>FRACTIONS: ±1/64<br>DECIMALS (.XX): ±.02<br>DECIMALS (.XXX): ±.015<br>DECIMALS (.XXXX): ±.0005<br>ANGLES: ±1°                                                                             | TITLE 3mm LED BI-LEVEL CBI<br>RoHS COMPLIANT |                                              |
| FINISH:                                                                                                                                                                                                                                | MATERIAL                                     |                                              |
| FSCM 83330                                                                                                                                                                                                                             | Dialight<br>*****                            | 1501 ROUTE 34 SOUTH<br>FARMINGDALE, NJ 07727 |
| SHEET 1 OF 1                                                                                                                                                                                                                           |                                              | FAMILY TABLES:                               |