

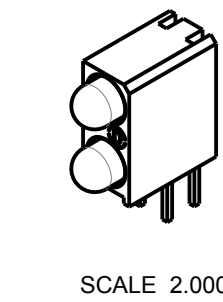
| ASSY. NO.<br>(CAT. NO.) | LED COLOR  |            |
|-------------------------|------------|------------|
|                         | POSITION 1 | POSITION 2 |
| 553-0101F               | BLANK      | RED        |
| 553-0102F               | BLANK      | GREEN      |
| 553-0103F               | BLANK      | 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     |
| 553-0127F               | GREEN      | ORANGE     |
| 553-0128F               | GREEN      | BLUE       |
| 553-0130F               | YELLOW     | BLANK      |
| 553-0131F               | YELLOW     | RED        |
| 553-0132F               | YELLOW     | GREEN      |
| 553-0133F               | YELLOW     | YELLOW     |
| 553-0171F               | ORANGE     | RED        |
| 553-0172F               | ORANGE     | GREEN      |
| 553-0173F               | ORANGE     | YELLOW     |
| 553-0177F               | ORANGE     | ORANGE     |
| 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     |



**RoHS COMPLIANT 553-0XXXF**

Part Numbers with the "F" suffix ending are RoHS Compliant.  
For example: 553-0101F  
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.

| BIN | LIMITS (WHITE LED)<br>(CHROMATICITY COORDINATES) |       |       |       |       |
|-----|--------------------------------------------------|-------|-------|-------|-------|
|     |                                                  |       |       |       |       |
| A3  | X                                                | 0.270 | 0.270 | 0.250 | 0.250 |
|     | Y                                                | 0.275 | 0.325 | 0.300 | 0.250 |
| A4  | X                                                | 0.270 | 0.250 | 0.250 | 0.270 |
|     | Y                                                | 0.275 | 0.250 | 0.200 | 0.225 |
| B3  | X                                                | 0.290 | 0.290 | 0.270 | 0.270 |
|     | Y                                                | 0.300 | 0.350 | 0.325 | 0.275 |
| B4  | X                                                | 0.290 | 0.270 | 0.270 | 0.290 |
|     | Y                                                | 0.300 | 0.275 | 0.225 | 0.250 |
| C3  | X                                                | 0.310 | 0.310 | 0.290 | 0.290 |
|     | Y                                                | 0.325 | 0.375 | 0.350 | 0.300 |
| C4  | X                                                | 0.310 | 0.290 | 0.290 | 0.310 |
|     | Y                                                | 0.325 | 0.300 | 0.250 | 0.275 |
| D3  | X                                                | 0.330 | 0.330 | 0.310 | 0.310 |
|     | Y                                                | 0.350 | 0.400 | 0.375 | 0.325 |
| D4  | X                                                | 0.330 | 0.310 | 0.310 | 0.330 |
|     | Y                                                | 0.350 | 0.325 | 0.275 | 0.300 |



SCALE 2.000



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

NOTES:

- (FOR ORANGE: LEADS .018 SQ. NOM.), LED BODY Ø.115±.010 AND THE PC BOARD TOLERANCE ON LEAD THICKNESS TO BE ±.003.
- LED LEAD DIMENSIONS SHOWN ARE MEASURED AT HOUSING EXIT.
- LEADS TO FIT INTO HOLES SPACED AS PER PATTERN.
- PIN NUMBERS FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PART.
- DIALIGHT PART NUMBERS: 553-0XXXF.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND STORAGE IN ACCORDANCE WITH IPC-A-610.



| 553-02XXF                                                         |        |      |      |      |        |                       |
|-------------------------------------------------------------------|--------|------|------|------|--------|-----------------------|
| OPERATING CHARACTERISTICS AT 25° C AMBIENT: 2 mA LOW CURRENT LEDs |        |      |      |      |        |                       |
| LED CHARACTERISTICS                                               | COLOR  | MIN. | TYP. | MAX. | UNITS  | TEST CONDITIONS       |
| LUMINOUS INTENSITY                                                | RED    | 0.75 | 2.5  |      | mcd    | I <sub>F</sub> = 2 mA |
|                                                                   | YELLOW | 0.4  | 4.5  |      |        |                       |
|                                                                   | GREEN  | 0.4  | 1.1  |      |        |                       |
| PEAK WAVELENGTH                                                   | RED    |      | 635  |      | nm     |                       |
|                                                                   | YELLOW |      | 585  |      |        |                       |
|                                                                   | GREEN  |      | 565  |      |        |                       |
| FORWARD VOLTAGE                                                   | RED    | 1.7  | 2.2  |      | V      | I <sub>F</sub> = 2 mA |
|                                                                   | YELLOW | 1.8  | 2.2  |      |        |                       |
|                                                                   | GREEN  | 1.9  | 2.2  |      |        |                       |
| REVERSE CURRENT                                                   | ALL    |      |      | 10   | μA     | V <sub>R</sub> = 5V   |
| VIEWING ANGLE                                                     | ALL    |      | 60   |      | DEGREE |                       |

| 553-02XXF                                                           |  |             |              |
|---------------------------------------------------------------------|--|-------------|--------------|
| ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT:<br>2 mA LOW CURRENT LEDs |  | COLOR       | UNITS        |
|                                                                     |  | RED         | GREEN YELLOW |
| POWER DISSIPATION                                                   |  | 20          | mW           |
| PEAK FORWARD CURRENT<br>(1/10 DUTY CYCLE, 0.1ms PULSE WIDTH)        |  | 500         | mA           |
| CONTINUOUS FORWARD CURRENT                                          |  | 7           | mA           |
| LINEAR DERATING FROM 95° C                                          |  | 0.7         | mA/° C       |
| REVERSE VOLTAGE                                                     |  | 5           | V            |
| LEAD SOLDERING TEMPERATURE<br>(.063" [1.6mm] FROM BODY) FOR 5 SEC.  |  | 260         | ° C          |
| OPERATING TEMPERATURE                                               |  | -55 TO +100 | ° C          |
| STORAGE TEMPERATURE                                                 |  | -55 TO +100 | ° C          |

| 553-01XXF                                              |        |      |      |      |        |                        |
|--------------------------------------------------------|--------|------|------|------|--------|------------------------|
| OPERATING CHARACTERISTICS AT 25° C AMBIENT: 10 mA LEDs |        |      |      |      |        |                        |
| LED CHARACTERISTICS                                    | COLOR  | MIN. | TYP. | MAX. | UNITS  | TEST CONDITIONS        |
| LUMINOUS INTENSITY                                     | RED    | 2.5  | 8.7  | 18   | mcd    | I <sub>F</sub> = 10 mA |
|                                                        | YELLOW | 1.7  | 5.6  | —    |        | I <sub>F</sub> = 2 mA  |
|                                                        | GREEN  | 5.6  | 12.6 | 29   |        | I <sub>F</sub> = 10 mA |
|                                                        | BLUE   | 11   | 16   | 23   |        | I <sub>F</sub> = 20 mA |
|                                                        | ORANGE | 3.4  | 7.0  | 10.8 |        | I <sub>F</sub> = 20 mA |
| PEAK WAVELENGTH                                        | RED    |      | 635  |      | nm     |                        |
|                                                        | YELLOW |      | 588  |      |        |                        |
|                                                        | GREEN  |      | 565  |      |        |                        |
|                                                        | BLUE   |      | 468  |      |        |                        |
|                                                        | ORANGE |      | 600  |      |        |                        |
| DOMINANT WAVELENGTH                                    | RED    | 615  | 625  | 632  | nm     | I <sub>F</sub> = 10 mA |
|                                                        | YELLOW | 585  | 590  | 595  |        |                        |
|                                                        | GREEN  | 564  | 568  | 573  |        |                        |
|                                                        | BLUE   | 460  | 467  | 475  |        |                        |
|                                                        | ORANGE | 597  | 602  | 616  |        |                        |
| FORWARD VOLTAGE                                        | RED    |      | 2.0  | 2.6  | V      | I <sub>F</sub> = 10 mA |
|                                                        | YELLOW |      | 2.1  | 2.6  |        |                        |
|                                                        | GREEN  |      | 2.1  | 2.6  |        |                        |
|                                                        | BLUE   | 2.0  | 2.7  | 4.1  |        |                        |
|                                                        | ORANGE | 1.5  | 1.9  | 3.5  |        |                        |
| REVERSE CURRENT                                        | WHITE  |      | 3.5  | 4.0  | μA     | I <sub>F</sub> = 20 mA |
|                                                        | RED    |      |      | 100  |        | V <sub>R</sub> = 5V    |
|                                                        | YELLOW |      |      | 100  |        |                        |
|                                                        | GREEN  |      |      | 100  |        |                        |
|                                                        | BLUE   |      |      | 10   |        |                        |
| VIEWING ANGLE                                          | ORANGE |      |      | 100  | DEGREE |                        |
|                                                        | WHITE  |      |      | 100  |        |                        |
|                                                        | RED    |      | 60   |      |        |                        |
|                                                        | YELLOW |      | 60   |      |        |                        |
|                                                        | GREEN  |      | 60   |      |        |                        |
| VIEWING ANGLE                                          | BLUE   |      | 100  |      | DEGREE |                        |
|                                                        | ORANGE |      | 60   |      |        |                        |
|                                                        | WHITE  |      | 45   |      |        |                        |

| 553-01XXF                                                                                                      |  |  |  |             |             |             |        |
|----------------------------------------------------------------------------------------------------------------|--|--|--|-------------|-------------|-------------|--------|
| ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT                                                                      |  |  |  | COLOR       |             |             | UNITS  |
|                                                                                                                |  |  |  | RED         | YELLOW      | GREEN       |        |
| POWER DISSIPATION                                                                                              |  |  |  | 100         | 60          | 120         | mW     |
| PEAK FORWARD CURRENT (1/5 DUTY CYCLE, 1 ms PULSE WIDTH)<br>(1/10, .1ms FOR BLUE) (t< 10 μs D= .005 FOR ORANGE) |  |  |  | 90          | 60          | 90          | mA     |
| CONTINUOUS FORWARD CURRENT                                                                                     |  |  |  | 30          | 20          | 30          | mA     |
| LINEAR DERATING FROM 50° C (30° C FOR BLUE, 30° C FOR WHITE)                                                   |  |  |  | 0.40        | 0.25        | 0.40        | mA/° C |
| REVERSE VOLTAGE                                                                                                |  |  |  |             |             |             | V      |
| LEAD SOLDERING TEMPERATURE (.063" [1.6mm] FROM BODY) FOR 5 SEC.                                                |  |  |  |             |             |             | ° C    |
| OPERATING TEMPERATURE                                                                                          |  |  |  | -55 TO +100 | -40 TO +85  | -55 TO +100 | ° C    |
| STORAGE TEMPERATURE                                                                                            |  |  |  | -55 TO +100 | -55 TO +100 | -55 TO +100 | ° C    |

| 553-03XXF                                                              |        |      |      |      |        |                     |
|------------------------------------------------------------------------|--------|------|------|------|--------|---------------------|
| OPERATING CHARACTERISTICS AT 25° C AMBIENT: 5 V INTEGRAL RESISTOR LEDs |        |      |      |      |        |                     |
| LED CHARACTERISTICS                                                    | COLOR  | MIN. | TYP. | MAX. | UNITS  | TEST CONDITIONS     |
| LUMINOUS INTENSITY                                                     | RED    | 8.7  | 29.0 |      | mcd    | V <sub>F</sub> = 5V |
|                                                                        | YELLOW | 3.7  | 12.6 |      |        |                     |
|                                                                        | GREEN  | 5.6  | 19.0 |      |        |                     |
| PEAK WAVELENGTH                                                        | RED    |      | 635  |      | nm     |                     |
|                                                                        | YELLOW |      | 585  |      |        |                     |
|                                                                        | GREEN  |      | 565  |      |        |                     |
| FORWARD CURRENT                                                        | RED    | 10   | 20   |      | mA     | V <sub>F</sub> = 5V |
|                                                                        | YELLOW | 10   | 20   |      |        |                     |
|                                                                        | GREEN  | 10   | 20   |      |        |                     |
| REVERSE CURRENT                                                        | RED    |      | 100  |      | μA     | V <sub>R</sub> = 5V |
|                                                                        | YELLOW |      | 100  |      |        |                     |
|                                                                        | GREEN  |      | 100  |      |        |                     |
| VIEWING ANGLE                                                          | ALL    |      | 60   |      | DEGREE |                     |

| 553-03XXF                                                               |  |  |             |              |
|-------------------------------------------------------------------------|--|--|-------------|--------------|
| ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT<br>5 V INTEGRAL RESISTOR LEDs |  |  | COLOR       | UNITS        |
|                                                                         |  |  | RED         | GREEN YELLOW |
| CONTINUOUS FORWARD VOLTAGE                                              |  |  | 7.5         | V            |
| REVERSE VOLTAGE                                                         |  |  | 5           | V            |
| LINEAR DERATING FROM 50° C                                              |  |  | 0.071       | V/° C        |
| LEAD SOLDERING TEMPERATURE<br>(.063" [1.6mm] FROM BODY) FOR 5 SEC.      |  |  | 260         | ° C          |
| OPERATING TEMPERATURE                                                   |  |  | -40 TO +85  | ° C          |
| STORAGE TEMPERATURE                                                     |  |  | -55 TO +100 | ° C          |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------|
| SCALE: 6.000                                                                                                                                                                                                                                     | DRAWING NUMBER                         | REV            |
| ALL DIM'S IN: INCHES (MM)                                                                                                                                                                                                                        | C-17277                                | K              |
| TOLERANCES:<br>UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                                        | TITLE                                  |                |
| FRACTIONS: ± 1/64<br>DECIMALS (.XX): ± .02<br>DECIMALS (.XXX): ± .015                                                                                                                                                                            | 3mm LED BI-LEVEL CBI<br>RoHS COMPLIANT |                |
| ANGLES: ± 3°                                                                                                                                                                                                                                     | MATERIAL                               |                |
| FINISH                                                                                                                                                                                                                                           |                                        |                |
| FSCM 83330                                                                                                                                                                                                                                       |                                        |                |
|                                                                                                                                                                                                                                                  | SHEET 1 OF 1                           | FAMILY TABLES: |

**Dialight**

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