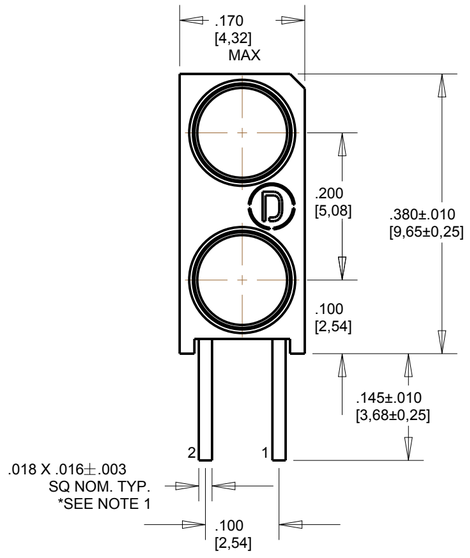
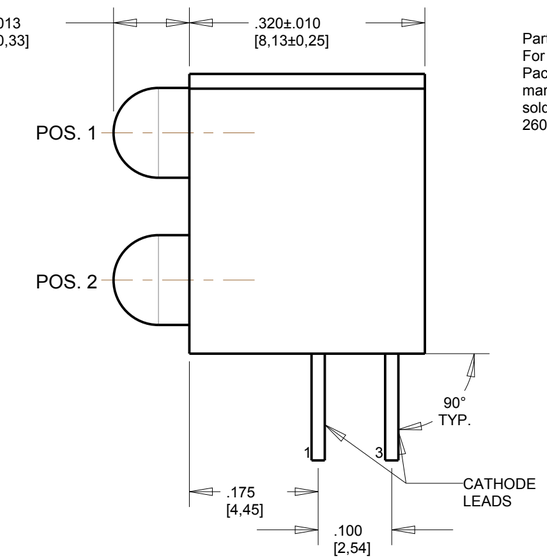
| ASSY. NO. (CAT. NO.) | LED COLOR POSITION 1 | LED COLOR POSITION 2 |
|---|---|---|
| 553-0101F | BLANK | RED |
| 553-0102F | BLANK | GREEN |
| 553-0103F | BLANK | YELLOW |
| 553-0107F | BLANK | ORANGE |
| 553-0108F | BLANK | BLUE |
| 553-0110F | RED | BLANK |
| 553-0111F | RED | RED |
| 553-0112F | 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 |

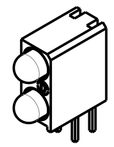



## RoHS COMPLIANT 553-0XXXF

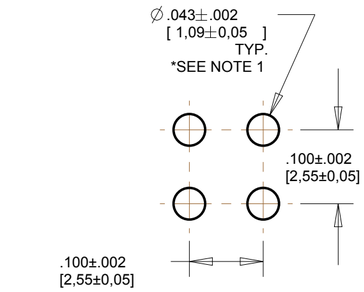
Part Numbers with the "F" suffix ending are RoHS Compliant.
For example: 553-0101F
Packaging is marked with "RoHS Compliant" label or equivalent markings. Parts can be wave soldered, dip soldered or hand soldered using typical lead-free soldering process with max 260°C temp. for 5 sec.

| BIN | | LIMITS (WHITE LED) (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 |

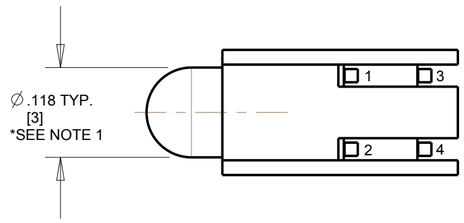


SCALE 2.000

| REV | 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 | NO | MES | 2-7-08 |
| G | ADDED P/Ns: 553-0107F, -0127F, -0171F, -0172F, & -0173F; ADDED ORANGE LED SPECS; UPDATED LED SPECS; ADDED DUAL DIMS; UPDATED TOLERANCES; ADDED NOTES 2 & 3; ADDED DOMINANT WAVELENGTH FOR 10 mA LEDs | JG | WFB | NO | 4-29-13 |
| H | ADDED TOLERANCES TO LEAD THICKNESS DIMENSIONS | MMB | WFB | NO | 6-21-13 |
| J | UPDATED LED SPECS FOR RED, GREEN AND YELLOW LED'S FOR P/N'S 553-01XXF | BP | — | NO | 8-22-16 |
| K | UPDATED LED SPECS FOR 553-01XXF, 553-02XXF & 553-03XXF | LD | — | NO | 6-25-19 |




RECOMMENDED HOLE PATTERN GAUGE




ATTENTION:
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

NOTES:

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

| 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 | $I_F$ = 10 mA |
| | YELLOW | 1.7 | 5.6 | — | | |
| | GREEN | 5.6 | 12.6 | 29 | | |
| | BLUE | 11 | 16 | 23 | | $I_F$ = 2 mA |
| | ORANGE | 3.4 | 7.0 | 10.8 | | $I_F$ = 10 mA |
| | WHITE | 400 | 1100 | 1900 | | $I_F$ = 20 mA |
| PEAK WAVELENGTH | RED | | 635 | | nm | |
| | YELLOW | | 588 | | | |
| | GREEN | | 565 | | | |
| | BLUE | | 468 | | | |
| | ORANGE | | 600 | | | |
| | WHITE | | | | | |
| DOMINANT WAVELENGTH | RED | 615 | 625 | 632 | nm | $I_F$ = 10 mA |
| | YELLOW | 585 | 590 | 595 | | |
| | GREEN | 564 | 568 | 573 | | |
| | BLUE | 460 | 467 | 475 | | |
| | ORANGE | 597 | 602 | 616 | | |
| | WHITE | | | | | |
| FORWARD VOLTAGE | RED | | 2.0 | 2.6 | V | $I_F$ = 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 | | |
| | WHITE | | 3.5 | 4.0 | | $I_F$ = 20 mA |
| REVERSE CURRENT | RED | | | 100 | μA | $V_R$ = 5V |
| | YELLOW | | | 100 | | |
| | GREEN | | | 100 | | |
| | BLUE | | | 10 | | |
| | ORANGE | | | 100 | | |
| | WHITE | | | 100 | | |
| VIEWING ANGLE | RED | | 60 | | DEGREE | |
| | YELLOW | | 60 | | | |
| | GREEN | | 60 | | | |
| | BLUE | | 100 | | | |
| | ORANGE | | 60 | | | |
| | WHITE | | 45 | | | |

| 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 | $V_F$ = 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 | $V_F$ = 5V |
| | YELLOW | | 10 | 20 | | |
| | GREEN | | 10 | 20 | | |
| REVERSE CURRENT | RED | | | 100 | μA | $V_R$ = 5V |
| | YELLOW | | | 100 | | |
| | GREEN | | | 100 | | |
| VIEWING ANGLE | ALL | | 60 | | DEGREE | |

| 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 | $I_F$ = 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 | $I_F$ = 2 mA |
| | YELLOW | | 1.8 | 2.2 | | |
| | GREEN | | 1.9 | 2.2 | | |
| REVERSE CURRENT | ALL | | | 10 | μA | $V_R$ = 5V |
| VIEWING ANGLE | ALL | | 60 | | DEGREE | |

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

| 553-02XXF ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT: 2 mA LOW CURRENT LEDs | COLOR RED | COLOR GREEN | COLOR YELLOW | UNITS |
|---|---|---|---|---|
| POWER DISSIPATION | 20 | | | mW |
| PEAK FORWARD CURRENT (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 (.063" [1.6mm] FROM BODY) FOR 5 SEC. | 260 | | | ° C |
| OPERATING TEMPERATURE | -55 TO +100 | | | ° C |
| STORAGE TEMPERATURE | -55 TO +100 | | | ° C |

| 553-01XXF ABSOLUTE MAXIMUM RATINGS AT 25° C AMBIENT | COLOR RED | COLOR YELLOW | COLOR GREEN | COLOR BLUE | COLOR ORANGE | COLOR WHITE | UNITS |
|---|---|---|---|---|---|---|---|
| POWER DISSIPATION | 100 | 60 | 120 | 120 | 135 | 120 | mW |
| PEAK FORWARD CURRENT (1/5 DUTY CYCLE, 1 ms PULSE WIDTH) (1/10, .1mS FOR BLUE) (t< 10 μs D=.005 FOR ORANGE) | 90 | 60 | 90 | 100 | 500 | 100 | mA |
| CONTINUOUS FORWARD CURRENT | 30 | 20 | 30 | 30 | 30 | 30 | mA |
| LINEAR DERATING FROM 50° C (30° C FOR BLUE, 30° C FOR WHITE) | 0.40 | 0.25 | 0.40 | .5 | 0.50 | .45 | mA/° C |
| REVERSE VOLTAGE | 5 | | | | | | V |
| LEAD SOLDERING TEMPERATURE (.063" [1.6mm] FROM BODY) FOR 5 SEC. | 260 | | | | | | ° C |
| OPERATING TEMPERATURE | -55 TO +100 | | | -40 TO +85 | -55 TO +100 | -40 TO +85 | ° C |
| STORAGE TEMPERATURE | -55 TO +100 | | | -55 TO +100 | -55 TO +100 | -40 TO +100 | ° C |

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SCALE: 6.000
ALL DIM'S IN: INCHES (MM)
TOLERANCES: UNLESS OTHERWISE SPECIFIED
FRACTIONS: ±1/64
DECIMALS (.XX): ±.02
DECIMALS (.XXX): ±.015
ANGLES: ±3°
FINISH
FSCM 83330

DRAWING NUMBER: C-17277
REV: K
TITLE: 3mm LED BI-LEVEL CBI RoHS COMPLIANT
MATERIAL

Dialight
1501 ROUTE 34 SOUTH
FARMINGDALE, NJ 07727
(732) 919-3119
www.dialight.com

SHEET 1 OF 1 FAMILY TABLES:

# OCEAN CHIPS
## Океан Электроники
### Поставка электронных компонентов

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

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FORSTAR®

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