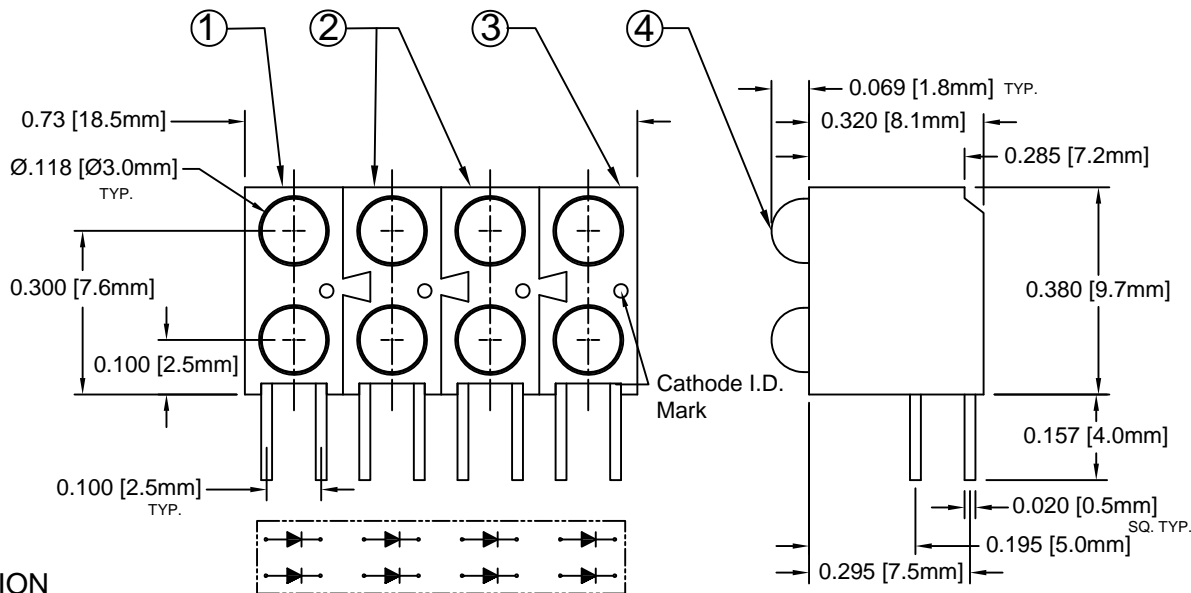
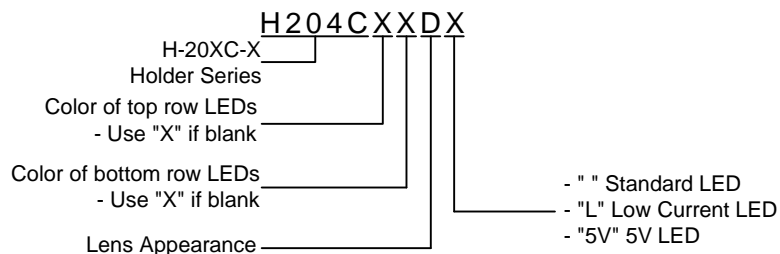


| ITEM | Q'TY | PART NUMBER | PART DESCRIPTION  |
|------|------|-------------|---|
| 1    | 1    | H-202C      | T-1 (3mm) Bi-Level LED Holder, 90° Mount, Interlock Lt. End |
| 2    | 2    | H-200C      | T-1 (3mm) Bi-Level LED Holder, 90° Mount, Interlock Center  |
| 3    | 1    | H-203C      | T-1 (3mm) Bi-Level LED Holder, 90° Mount, Interlock Rt. End |
| 4    | 8    | 3XX-S       | T-1 (3mm) N-Flange Shouldered LED, See Page 2               |

| REV. | DESCRIPTION                      | DATE     | APPROVED |
|------|----------------------------------|----------|----------|
| A    | Engineering Update w/o Changes   | 03/05/04 | M. C.    |
| B    | LED Package Change to 3XX-S LEDs | 12/14/07 | M. C.    |
| C    | Added P/N Designation Note       | 11/06/08 | T. Y.    |
| D    | LED Update                       | 07/23/09 | T. Y.    |
| E    | Engineering Update w/o Changes   | 06/21/16 | J. C.    |

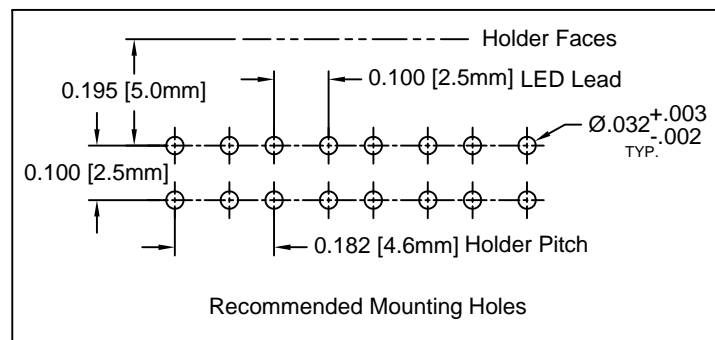


NOTE: P/N DESIGNATION



-If LEDs are the same, use e.g. H204CGD

All Green LEDs





## ABSOLUTE MAXIMUM RATINGS (Ta=25° C)

|   |                      |
|---|----------------------|
| REVERSE VOLTAGE                             | 5V                   |
| REVERSE CURRENT                             | 100uA                |
| OPERATING TEMPERATURE RANGE                 | -25° C - 85° C       |
| STORAGE TEMPERATURE                         | -30° C - 100° C      |
| LEAD SOLDERING TEMPERATURE(1/16" FROM BODY) | 260° C FOR 5 SECONDS |

| STANDARD TOLERANCE (UNLESS OTHERWISE SPECIFIED) |                | BIVAR®  |  |
|---|----------------|---|--|
| DECIMALS  | ANGULAR        | 4 THOMAS, IRVINE, CA. 92618                             |  |
| .X ± .1   | X° ± 1°        | TEL: (949) 951-8808 FAX: (949) 951-3974                 |  |
| .XX ± .02                                       |                | <b>TITLE:</b> T-1 (3MM) 90° BI-LEVEL QUAD-STATION ARRAY |  |
| .XXX ± .010                                     |                | <b>PART NO:</b> H204CXX                                 |  |
| DESIGNED: T. Yin                                | DATE: 03/05/04 | REVISION: E   |  |
| CHECKED: D. Green                               | DATE: 03/05/04 | <b>CAGE CODE :</b> 32559 <b>SHEET #</b> 1 OF 2          |  |
| CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING. |                |   |  |

|      |              |      |          |
|------|--------------|------|----------|
| REV. | DESCRIPTION  | DATE | APPROVED |
|      | SEE SHEET #1 |      |          |

| LED Assy. No.      | Peak Wave Length<br>$\lambda_p$ (nm) | Emitted Color | Lens Appearance | Electro-Optical Data |           |     |             | Viewing Angle<br>$2\theta \frac{1}{2}$<br>(Deg) | LED P/N |
|--------------------|--------------------------------------|---------------|-----------------|----------------------|-----------|-----|-------------|---|---------|
|                    |                                      |               |                 | If<br>(mA)           | Vf<br>(V) |     | Iv<br>(mcd) |   |         |
|                    |                                      |               |                 | TYP                  | TYP       | MAX | TYP         |   |         |
| <b>STANDARD</b>    |                                      |               |                 | <b>Data @ 20mA</b>   |           |     |             |   |         |
| H204CBWD           | 430                                  | BLUE          | DIFFUSED        | 20                   | 4.0       | 4.5 | 10          | 40  | 3BWD-S  |
| H204CGD            | 568                                  | GREEN         | DIFFUSED        | 20                   | 2.1       | 2.8 | 25          | 40  | 3GD-S   |
| H204CYD            | 590                                  | YELLOW        | DIFFUSED        | 20                   | 2.0       | 2.8 | 20          | 40  | 3YD-S   |
| H204CHD            | 625                                  | HE RED        | DIFFUSED        | 20                   | 2.0       | 2.8 | 30          | 40  | 3HD-S   |
| H204CRD            | 700                                  | RED           | DIFFUSED        | 20                   | 2.1       | 2.8 | 2           | 40  | 3RD-S   |
| H204CSR            | 645                                  | SUPER RED     | DIFFUSED        | 20                   | 1.7       | 2.4 | 40          | 40  | 3SRD-S  |
| <b>LOW CURRENT</b> |                                      |               |                 | <b>Data @ 2mA</b>    |           |     |             |   |         |
| H204CGDL           | 568                                  | GREEN         | DIFFUSED        | 2                    | 2.1       | 2.6 | 2           | 40  | 3GDL-S  |
| H204CYDL           | 590                                  | YELLOW        | DIFFUSED        | 2                    | 2.0       | 2.6 | 2           | 40  | 3YDL-S  |
| H204CHDL           | 625                                  | HE RED        | DIFFUSED        | 2                    | 2.0       | 2.6 | 3           | 40  | 3HDL-S  |
| <b>5 VOLT</b>      |                                      |               |                 | <b>Data @ 5V</b>     |           |     |             |   |         |
| H204CGD5V          | 568                                  | GREEN         | DIFFUSED        | -                    | -         | 5.0 | 25          | 40  | 3GD5V-S |
| H204CYD5V          | 590                                  | YELLOW        | DIFFUSED        | -                    | -         | 5.0 | 20          | 40  | 3YD5V-S |
| H204CHD5V          | 625                                  | HE RED        | DIFFUSED        | -                    | -         | 5.0 | 30          | 40  | 3HD5V-S |

|  |                          |   |  |  |
|--|--------------------------|---|--|--|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br>$\pm 10\%$ ALL VALUES    ANGULAR |                          | <br><b>BIVAR</b> <sup>®</sup><br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808    FAX: (949) 951-3974 |  |  |
|     |                          |   |  | <b>TITLE:</b> T-1 (3MM) 90° BI-LEVEL<br>QUAD-STATION ARRAY |
| DESIGNED:<br><b>T. Yin</b>   | DATE:<br><b>03/05/04</b> | <b>PART NO:</b> H204CXX   |  | REVISION:<br><b>E</b>                                      |
| CHECKED:<br><b>D. Green</b>  | DATE:<br><b>03/05/04</b> | <b>CAGE CODE : 32559</b>  |  | <b>SHEET # 2 OF 2</b>                                      |
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