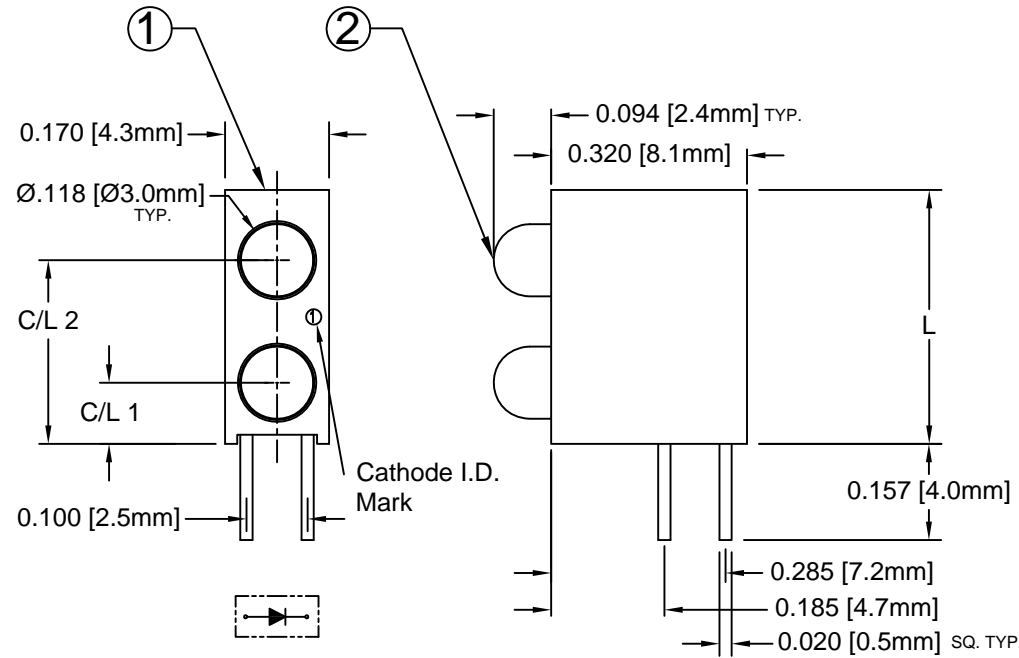
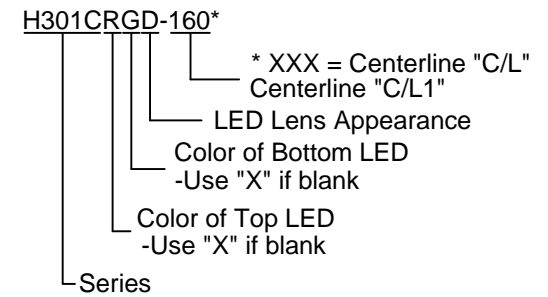


| ITEM | Q'TY | PART NUMBER  | PART DESCRIPTION                                   |
|------|------|--------------|--|
| 1    | 1    | H-301C-1-XXX | T-1 (3mm) Bi-Level LED Holder, 90° Mount, Var. C/L |
| 2    | 2    | 3XX-S        | T-1 (3mm) N-Flange Shouldered LED, See Page 2      |

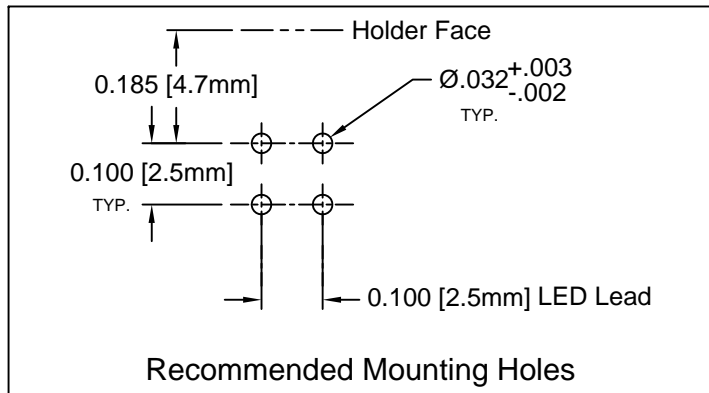
| REV. | DESCRIPTION                      | DATE     | APPROVED |
|------|----------------------------------|----------|----------|
| A    | Engineering Update w/o Changes   | 03/10/04 | M. C.    |
| B    | LED Package Change to 3XX-S LEDs | 12/14/07 | M. C.    |
| C    | Added H301CSRC-XXX Spec          | 03/04/08 | M. C.    |
| D    | Added P/N Designation Note       | 08/19/09 | T. Y.    |
| E    | Engineering Update w/o Changes   | 06/24/16 | J. C.    |



**PART NUMBER DESIGNATION**



-If all LEDs are the same, use e.g. H301CRD-100  
 -All Red LEDs



| Available Centerlines |            |            |             |
|-----------------------|------------|------------|-------------|
| XXX                   | C/L 1      | C/L 2      | L           |
| 100                   | .100 (2.5) | .300 (7.6) | .415 (10.6) |
| 120                   | .120 (3.0) | .320 (8.1) | .435 (11.0) |
| 140                   | .140 (3.6) | .340 (8.6) | .455 (11.6) |
| 160                   | .160 (4.1) | .360 (9.1) | .475 (12.1) |
| 180                   | .180 (4.6) | .380 (9.7) | .495 (12.6) |



**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<br>(UNLESS OTHERWISE SPECIFIED)<br>DECIMALS      ANGULAR<br>.X    ± .1      X° ± 1°<br>.XX   ± .02<br>.XXX ± .010 |                          | <b>BIVAR</b> ®<br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808    FAX: (949) 951-3974 |                       |
|  |                          | TITLE: T-1 (3MM) 90° BI-LEVEL VAR. C/L LED ASSY   |                       |
| DESIGNED:<br><b>T. Yin</b>   | DATE:<br><b>03/10/04</b> | PART NO:<br><b>H301CXX-XXX</b>  | REVISION:<br><b>E</b> |
| CHECKED:<br><b>D. Green</b>  | DATE:<br><b>03/10/04</b> | CAGE CODE : 32559   | SHEET # 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>$2\theta_{1/2}$<br>(Deg) | LED P/N |
|--------------------|--------------------------------------|---------------|-----------------|------------------------|-----------------------|-----|-------------------------|---|---------|
|                    |                                      |               |                 | I <sub>f</sub><br>(mA) | V <sub>f</sub><br>(V) |     | I <sub>v</sub><br>(mcd) |   |         |
|                    |                                      |               |                 | TYP                    | TYP                   | MAX | TYP                     |   |         |
| <b>STANDARD</b>    |                                      |               |                 | <b>Data @ 20mA</b>     |                       |     |                         |   |         |
| H301CBWD-XXX       | 430                                  | BLUE          | DIFFUSED        | 20                     | 4.0                   | 4.5 | 10                      | 40  | 3BWD-S  |
| H301CGD-XXX        | 568                                  | GREEN         | DIFFUSED        | 20                     | 2.1                   | 2.8 | 25                      | 40  | 3GD-S   |
| H301CSGC-XXX       | 568                                  | SUPER GREEN   | WATER CLEAR     | 20                     | 2.1                   | 2.8 | 50                      | 30  | 3SGC-S  |
| H301CSGD-XXX       | 568                                  | SUPER GREEN   | DIFFUSED        | 20                     | 2.1                   | 2.8 | 30                      | 40  | 3SGD-S  |
| H301CSGT-XXX       | 568                                  | SUPER GREEN   | TINTED          | 20                     | 2.1                   | 2.8 | 50                      | 30  | 3SGT-S  |
| H301CYD-XXX        | 590                                  | YELLOW        | DIFFUSED        | 20                     | 2.0                   | 2.8 | 20                      | 40  | 3YD-S   |
| H301CHD-XXX        | 625                                  | HE RED        | DIFFUSED        | 20                     | 2.0                   | 2.8 | 30                      | 40  | 3HD-S   |
| H301CRD-XXX        | 700                                  | RED           | DIFFUSED        | 20                     | 2.1                   | 2.8 | 2                       | 40  | 3RD-S   |
| H301CSR-XXX        | 645                                  | SUPER RED     | DIFFUSED        | 20                     | 1.7                   | 2.4 | 40                      | 40  | 3SRD-S  |
| H301CSRC-XXX       | 645                                  | SUPER RED     | WATER CLEAR     | 20                     | 1.7                   | 2.4 | 60                      | 30  | 3SRC-S  |
| <b>LOW CURRENT</b> |                                      |               |                 | <b>Data @ 2mA</b>      |                       |     |                         |   |         |
| H301CGDL-XXX       | 568                                  | GREEN         | DIFFUSED        | 2                      | 2.1                   | 2.6 | 2                       | 40  | 3GDL-S  |
| H301CYDL-XXX       | 590                                  | YELLOW        | DIFFUSED        | 2                      | 2.0                   | 2.6 | 2                       | 40  | 3YDL-S  |
| H301CHDL-XXX       | 625                                  | HE RED        | DIFFUSED        | 2                      | 2.0                   | 2.6 | 3                       | 40  | 3HDL-S  |
| <b>5 VOLT</b>      |                                      |               |                 | <b>Data @ 5V</b>       |                       |     |                         |   |         |
| H301CGD5V-XXX      | 568                                  | GREEN         | DIFFUSED        | 8                      | -                     | 5.0 | 25                      | 40  | 3GD5V-S |
| H301CYD5V-XXX      | 590                                  | YELLOW        | DIFFUSED        | 8                      | -                     | 5.0 | 20                      | 40  | 3YD5V-S |
| H301CHD5V-XXX      | 625                                  | HE RED        | DIFFUSED        | 8                      | -                     | 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 |                                     |
|   |                          |   |                                     |
| DESIGNED:<br><b>T. Yin</b>   | DATE:<br><b>03/10/04</b> | TITLE:<br>T-1 (3MM) 90° BI-LEVEL<br>VAR. C/L LED ASSY   | REVISION:<br><b>E</b>               |
| CHECKED:<br><b>D. Green</b>  | DATE:<br><b>03/10/04</b> | PART NO:<br><b>H301CXX-XXX</b>  | CAGE CODE : 32559    SHEET # 2 OF 2 |
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