

| ITEM | Q'TY | PART NUMBER | PART DESCRIPTION                           |
|------|------|-------------|--|
| 1    | 1    | 3XX-F       | T-1 (3mm) Flanged LED, See Pages 2 to 4    |
| 2    | 1    | ELM5XXX     | Extruded, Self-Retaining Narrow LED Spacer |

| REV. | DESCRIPTION                          | DATE     | APPROVED |
|------|--------------------------------------|----------|----------|
| D    | Update BOM and Top View of ELM       | 11/07/06 | M. C.    |
| E    | Added Low Current LEDs               | 01/04/07 | M. C.    |
| F    | Corrected LED Part Numbers on Page 3 | 03/12/07 | M. C.    |
| G    | Added 3SRC-F LED to Page 3           | 12/21/07 | M. C.    |
| H    | Removed Tolerance Note.              | 09/03/08 | M. C.    |
| J    | Added ELM5XXX3UYC Specs.             | 09/24/08 | M. C.    |
| K    | Added Bi-Color LED Polarity Diagram. | 03/29/10 | T. Y.    |
| L    | Added Tape & Reel Options.           | 06/07/11 | T. Y.    |
| M    | Tape & Reel Design Update.           | 11/21/11 | T. Y.    |
| N    | LED Offering List Update             | 07/27/12 | T. Y.    |



| BI-COLOR POLARITY |             |             |
|-------------------|-------------|-------------|
| LED P/N           | (1) Cathode | (2) Cathode |
| 3BC-F             | Green       | Red         |
| 3BC-Y/G-F         | Green       | Yellow      |
| 3BC-R/Y-F         | Yellow      | Red         |
| 3BC-A/G-F         | Green       | Amber       |



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

|   |                      |
|---|----------------------|
| REVERSE VOLTAGE _____                             | 5V                   |
| REVERSE CURRENT _____                             | 100µA                |
| 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><b>BIVAR</b> <sup>®</sup><br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808 FAX: (949) 951-3974 |                       |
| DECIMALS   | ANGULAR                  |   |                       |
| .X ±.1   | X° ± 1°                  | <br><b>TITLE:</b> EXTRUDED VERTICAL T-1 (3mm)<br>LED NARROW SPACER PROFILE ASSY                         |                       |
| .XX ±.02   |                          |   |                       |
| .XXX ±.010   |                          |   |                       |
| DESIGNED:<br><b>Minh Doan</b>                        | DATE:<br><b>07/27/12</b> | <b>PART NO:</b><br>ELM5XXX3XX   | REVISION:<br><b>N</b> |
| CHECKED:<br><b>T. Yin</b>                            | DATE:<br><b>07/27/12</b> | <b>CAGE CODE :</b> 32559  | <b>SHEET # 1 OF 5</b> |
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|------|--------------|------|----------|
| REV. | DESCRIPTION  | DATE | APPROVED |
|      | SEE SHEET#1. |      |          |

| LED Assy. No.  | Chip      |                  |               | Lens Appearance | Electro-Optical Data @ 20mA |        |     |          | Viewing Angle 2 θ ½ (Deg) | LED P/N   |     |
|----------------|-----------|------------------|---------------|-----------------|-----------------------------|--------|-----|----------|---------------------------|-----------|-----|
|                | Material  | Peak Wave Length | Emitted Color |                 | If (mA)                     | Vf (V) |     | Iv (mcd) |                           |           |     |
|                |           |                  |               |                 |                             | MAX    | TYP | MAX      |                           |           | TYP |
| ELM5XXX3BWC    | GaN/SiC   | 430              | BLUE          | WATER CLEAR     | 25                          | 4      | 4.5 | 15       | 20                        | 3BWC-F    |     |
| ELM5XXX3BWD    | GaN/SiC   | 430              | BLUE          | DIFFUSED        | 25                          | 4      | 4.5 | 10       | 35                        | 3BWD-F    |     |
| ELM5XXX3BWT    | GaN/SiC   | 430              | BLUE          | TINTED          | 25                          | 4      | 4.5 | 15       | 20                        | 3BWT-F    |     |
| ELM5XXX3GC     | GaP/GaP   | 568              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.8 | 40       | 20                        | 3GC-F     |     |
| ELM5XXX3GD     | GaP/GaP   | 568              | GREEN         | DIFFUSED        | 30                          | 2.1    | 2.8 | 25       | 35                        | 3GD-F     |     |
| ELM5XXX3GT     | GaP/GaP   | 568              | GREEN         | TINTED          | 30                          | 2.1    | 2.8 | 40       | 20                        | 3GT-F     |     |
| ELM5XXX3PGC    | GaP/GaP   | 555              | PURE GREEN    | WATER CLEAR     | 30                          | 2.2    | 2.8 | 10       | 20                        | 3PGC-F    |     |
| ELM5XXX3PGD    | GaP/GaP   | 555              | PURE GREEN    | DIFFUSED        | 30                          | 2.2    | 2.8 | 5        | 35                        | 3PGD-F    |     |
| ELM5XXX3PGT    | GaP/GaP   | 555              | PURE GREEN    | TINTED          | 30                          | 2.2    | 2.8 | 10       | 20                        | 3PGT-F    |     |
| ELM5XXX3YC     | GaAsP/GaP | 590              | YELLOW        | WATER CLEAR     | 30                          | 2      | 2.8 | 40       | 20                        | 3YC-F     |     |
| ELM5XXX3YD     | GaAsP/GaP | 590              | YELLOW        | DIFFUSED        | 30                          | 2      | 2.8 | 20       | 35                        | 3YD-F     |     |
| ELM5XXX3YT     | GaAsP/GaP | 590              | YELLOW        | TINTED          | 30                          | 2      | 2.8 | 40       | 20                        | 3YT-F     |     |
| ELM5XXX3AC     | GaAsP/GaP | 605              | AMBER         | WATER CLEAR     | 30                          | 2      | 2.8 | 40       | 20                        | 3AC-F     |     |
| ELM5XXX3AD     | GaAsP/GaP | 605              | AMBER         | DIFFUSED        | 30                          | 2      | 2.8 | 25       | 35                        | 3AD-F     |     |
| ELM5XXX3AT     | GaAsP/GaP | 605              | AMBER         | TINTED          | 30                          | 2      | 2.8 | 40       | 20                        | 3AT-F     |     |
| ELM5XXX3HC     | GaAsP/GaP | 625              | HE RED        | WATER CLEAR     | 30                          | 2      | 2.8 | 50       | 20                        | 3HC-F     |     |
| ELM5XXX3HD     | GaAsP/GaP | 625              | HE RED        | DIFFUSED        | 30                          | 2      | 2.8 | 30       | 35                        | 3HD-F     |     |
| ELM5XXX3HT     | GaAsP/GaP | 625              | HE RED        | TINTED          | 30                          | 2      | 2.8 | 50       | 20                        | 3HT-F     |     |
| ELM5XXX3RC     | GaP/GaP   | 700              | RED           | WATER CLEAR     | 20                          | 2.1    | 2.8 | 2.5      | 35                        | 3RC-F     |     |
| ELM5XXX3RD     | GaP/GaP   | 700              | RED           | DIFFUSED        | 20                          | 2.1    | 2.8 | 2        | 20                        | 3RD-F     |     |
| ELM5XXX3RT     | GaP/GaP   | 700              | RED           | TINTED          | 20                          | 2.1    | 2.8 | 2.5      | 20                        | 3RT-F     |     |
| ELM5XXX3BC-A/G | GaAsP/GaP | 605              | AMBER         | DIFFUSED        | 30                          | 2.0    | 2.8 | 6        | 45                        | 3BC-A/G-F |     |
|                | GaP/GaP   | 568              | GREEN         |                 | 30                          | 2.1    | 2.8 | 6        |                           |           |     |
| ELM5XXX3BC     | GaAsP/GaP | 625              | RED           | DIFFUSED        | 30                          | 2.0    | 2.8 | 6        | 45                        | 3BC-F     |     |
|                | GaP/GaP   | 568              | GREEN         |                 | 30                          | 2.1    | 2.8 | 6        |                           |           |     |
| ELM5XXX3BC-R/Y | GaAsP/GaP | 625              | RED           | DIFFUSED        | 30                          | 2.0    | 2.8 | 6        | 45                        | 3BC-R/Y-F |     |
|                | GaAsP/GaP | 590              | YELLOW        |                 | 30                          | 2.0    | 2.8 | 4        |                           |           |     |
| ELM5XXX3BC-Y/G | GaAsP/GaP | 590              | YELLOW        | DIFFUSED        | 30                          | 2.0    | 2.8 | 4        | 45                        | 3BC-Y/G-F |     |
|                | GaP/GaP   | 568              | GREEN         |                 | 30                          | 2.1    | 2.8 | 6        |                           |           |     |

|   |                          |   |                       |
|---|--------------------------|---|-----------------------|
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| ANGULAR<br>X° ± 5°  |                          |   |                       |
|  |                          | TITLE: EXTRUDED VERTICAL T-1 (3mm)<br>LED STANDARD PROFILE SPACER ASSY  |                       |
| DESIGNED:<br><b>Minh Doan</b>   | DATE:<br><b>07/27/12</b> | PART NO:<br><b>ELM5XXX3XX</b>   | REVISION:<br><b>N</b> |
| CHECKED:<br><b>T. Yin</b>   | DATE:<br><b>07/27/12</b> | CAGE CODE : <b>32559</b>  | SHEET # <b>2 OF 5</b> |
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|------|--------------|------|----------|
| REV. | DESCRIPTION  | DATE | APPROVED |
|      | SEE SHEET#1. |      |          |

| LED Assy. No. | Chip           |                  |               | Lens Appearance | Electro-Optical Data @ 20mA |        |     |          | Viewing Angle 2θ ½ (Deg) | LED P/N      |
|---------------|----------------|------------------|---------------|-----------------|-----------------------------|--------|-----|----------|--------------------------|--------------|
|               | Material       | Peak Wave Length | Emitted Color |                 | If (mA)                     | Vf (V) |     | Iv (mcd) |                          |              |
|               |                |                  |               |                 | MAX                         | TYP    | MAX | TYP      |                          |              |
| ELM5XXX3UBWC  | GaN/SiC        | 470              | BLUE          | WATER CLEAR     | 30                          | 4      | 4.5 | 400      | 30                       | 3UBWC-0.6K-F |
| ELM5XXX3SGC   | GaP/GaP        | 568              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.8 | 50       | 20                       | 3SGC-F       |
| ELM5XXX3SGD   | GaP/GaP        | 568              | GREEN         | DIFFUSED        | 30                          | 2.1    | 2.8 | 30       | 35                       | 3SGD-F       |
| ELM5XXX3SGT   | GaP/GaP        | 568              | GREEN         | TINTED          | 30                          | 2.1    | 2.8 | 50       | 20                       | 3SGT-F       |
| ELM5XXX3SYC   | GaAsP/GaP      | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.8 | 50       | 20                       | 3SYC-F       |
| ELM5XXX3SYD   | GaAsP/GaP      | 590              | YELLOW        | DIFFUSED        | 30                          | 2.0    | 2.8 | 30       | 35                       | 3SYD-F       |
| ELM5XXX3SYT   | GaAsP/GaP      | 590              | YELLOW        | TINTED          | 30                          | 2.0    | 2.8 | 50       | 20                       | 3SYT-F       |
| ELM5XXX3SAC   | AlGaInP        | 605              | AMBER         | WATER CLEAR     | 30                          | 1.8    | 2.4 | 300      | 20                       | 3SAC-F       |
| ELM5XXX3SAD   | AlGaInP        | 605              | AMBER         | DIFFUSED        | 30                          | 1.8    | 2.4 | 100      | 35                       | 3SAD-F       |
| ELM5XXX3SAT   | AlGaInP        | 605              | AMBER         | TINTED          | 30                          | 1.8    | 2.4 | 300      | 20                       | 3SAT-F       |
| ELM5XXX3SRC   | GaAlAs/GaAs    | 645              | SUPER RED     | WATER CLEAR     | 30                          | 1.7    | 2.4 | 60       | 20                       | 3SRC-F       |
| ELM5XXX3SRD   | GaAlAs/GaAs    | 645              | SUPER RED     | DIFFUSED        | 30                          | 1.7    | 2.4 | 40       | 35                       | 3SRD-F       |
| ELM5XXX3SRT   | GaAlAs/GaAs    | 645              | SUPER RED     | TINTED          | 30                          | 1.7    | 2.4 | 60       | 20                       | 3SRT-F       |
| ELM5XXX3UGC   | AlGaInP        | 570              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.4 | 200      | 20                       | 3UGC-F       |
| ELM5XXX3UGC   | AlGaInP        | 570              | GREEN         | WATER CLEAR     | 30                          | 2.1    | 2.4 | 300      | 35                       | 3UGC-F       |
| ELM5XXX3UYC   | AlGaInP        | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.4 | 300      | 20                       | 3UYC-F       |
| ELM5XXX3SUYC  | AlGaInP        | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.4 | 400      | 20                       | 3SUYC-F      |
| ELM5XXX3UUYC  | AlGaInP        | 590              | YELLOW        | WATER CLEAR     | 30                          | 2.0    | 2.4 | 600      | 35                       | 3UUYC-F      |
| ELM5XXX3UOC   | AlGaInP        | 625              | ORANGE        | WATER CLEAR     | 30                          | 1.8    | 2.4 | 300      | 20                       | 3UOC-F       |
| ELM5XXX3SUOC  | AlGaInP        | 625              | ORANGE        | WATER CLEAR     | 30                          | 1.8    | 2.4 | 400      | 20                       | 3SUOC-F      |
| ELM5XXX3URC   | GaAlAs/GaAs    | 645              | RED           | WATER CLEAR     | 30                          | 1.7    | 2.4 | 200      | 35                       | 3URC-F       |
| ELM5XXX3SURC  | AlGaInP        | 640              | RED           | WATER CLEAR     | 30                          | 1.8    | 2.4 | 200      | 20                       | 3SURC-F      |
| ELM5XXX3UWC   | InGaN/Sapphire | 6500K            | WHITE         | WATER CLEAR     | 30                          | 3.4    | 3.8 | 1000     | 35                       | 3UWC1.030C-F |

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| ANGULAR<br>X° ± 5°  |  |   |  |
| DESIGNED:<br><b>Minh Doan</b>   |  | DATE:<br><b>07/27/12</b>  | <br><b>TITLE:</b> EXTRUDED VERTICAL T-1 (3mm)<br>LED STANDARD PROFILE SPACER ASSY |
| CHECKED:<br><b>T. Yin</b>   |  | DATE:<br><b>07/27/12</b>  |  |
|   |  | <b>PART NO:</b> ELM5XXX3XX  | REVISION:<br><b>N</b>  |
|   |  | <b>CAGE CODE :</b> 32559  | <b>SHEET # 3 OF 5</b>  |
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| REV. | DESCRIPTION  | DATE | APPROVED |
|      | SEE SHEET#1. |      |          |

| LED Assy. No. | Chip        |                         |               | Lens Appearance | Absolute Max. Ratings |         |             | Electro-Optical Data @ 2mA |     |          | Viewing Angle 2θ½ (Deg) | LED P/N |
|---------------|-------------|-------------------------|---------------|-----------------|-----------------------|---------|-------------|----------------------------|-----|----------|-------------------------|---------|
|               | Material    | Peak Wave Length λp(nm) | Emitted Color |                 | Pd (mW)               | If (mA) | Peak If(mA) | Vf (V)                     |     | Iv (mcd) |                         |         |
|               |             |                         |               |                 |                       |         |             | TYP                        | MAX | TYP      |                         |         |
| ELM5XXX3BWDL  | GaN/siC     | 430                     | BLUE          | DIFFUSED        | 20                    | 7       | -           | 3.8                        | 4.2 | 2.5      | 35                      | 3BWDL-F |
| ELM5XXX3GDL   | GaP/GaP     | 568                     | GREEN         | DIFFUSED        | 10                    | 7       | -           | 2.1                        | 2.6 | 4.0      | 35                      | 3GDL-F  |
| ELM5XXX3PGDL  | GaP/GaP     | 555                     | PURE GREEN    | DIFFUSED        | 10                    | 7       | -           | 2.1                        | 2.6 | 0.2      | 35                      | 3PGDL-F |
| ELM5XXX3YDL   | GaAsP/GaP   | 590                     | YELLOW        | DIFFUSED        | 10                    | 7       | -           | 2.0                        | 2.6 | 2.0      | 35                      | 3YDL-F  |
| ELM5XXX3ADL   | GaAsP/GaP   | 605                     | AMBER         | DIFFUSED        | 10                    | 7       | -           | 2.0                        | 2.6 | 4.0      | 35                      | 3ADL-F  |
| ELM5XXX3HDL   | GaAsP/GaP   | 625                     | HE RED        | DIFFUSED        | 10                    | 7       | -           | 2.0                        | 2.6 | 2.5      | 35                      | 3HDL-F  |
| ELM5XXX3RDL   | GaP/GaP     | 700                     | RED           | DIFFUSED        | 10                    | 7       | -           | 2.1                        | 2.6 | 0.5      | 35                      | 3RDL-F  |
| ELM5XXX3SRDL  | GaAlAs/GaAs | 645                     | RED           | DIFFUSED        | 10                    | 7       | -           | 2.0                        | -   | 8.0      | 35                      | 3SRDL-F |

| Assembly P/N   | Peak Wave Length λp(nm) | Emitted Color | Lens Appearance | Electro-Optical Data |        |     |          | Viewing Angle 2θ½ (Deg) | LED P/N  |
|----------------|-------------------------|---------------|-----------------|----------------------|--------|-----|----------|-------------------------|----------|
|                |                         |               |                 | If (mA)              | Vf (V) |     | Iv (mcd) |                         |          |
|                |                         |               |                 |                      | MAX    | TYP | MAX      |                         |          |
| <b>5 Volt</b>  |                         |               |                 | <b>Data @ 5V</b>     |        |     |          |                         |          |
| ELM5XXX3BWD5V  | BLUE                    | 430           | DIFFUSED        | -                    | -      | 5   | 10       | 35                      | 3BWD5V-F |
| ELM5XXX3GC5V   | GREEN                   | 568           | WATER CLEAR     | -                    | -      | 5   | 40       | 20                      | 3GC5V-F  |
| ELM5XXX3GD5V   | GREEN                   | 568           | DIFFUSED        | -                    | -      | 5   | 25       | 35                      | 3GD5V-F  |
| ELM5XXX3GT5V   | GREEN                   | 568           | TINTED          | -                    | -      | 5   | 40       | 20                      | 3GT5V-F  |
| ELM5XXX3AD5V   | AMBER                   | 605           | DIFFUSED        | -                    | -      | 5   | 25       | 35                      | 3AD5V-F  |
| ELM5XXX3HD5V   | HE RED                  | 625           | DIFFUSED        | -                    | -      | 5   | 30       | 35                      | 3HD5V-F  |
| ELM5XXX3RD5V   | RED                     | 700           | DIFFUSED        | -                    | -      | 5   | 2        | 35                      | 3RD5V-F  |
| ELM5XXX3YD5V   | YELLOW                  | 590           | DIFFUSED        | -                    | -      | 5   | 20       | 35                      | 3YD5V-F  |
| <b>12 Volt</b> |                         |               |                 | <b>Data @ 12V</b>    |        |     |          |                         |          |
| ELM5XXX3GC12V  | GREEN                   | 568           | WATER CLEAR     | -                    | -      | 12  | 40       | 20                      | 3GC12V-F |
| ELM5XXX3GD12V  | GREEN                   | 568           | DIFFUSED        | -                    | -      | 12  | 25       | 35                      | 3GD12V-F |
| ELM5XXX3HC12V  | HE RED                  | 625           | WATER CLEAR     | -                    | -      | 12  | 50       | 20                      | 3HC12V-F |
| ELM5XXX3HD12V  | HE RED                  | 625           | DIFFUSED        | -                    | -      | 12  | 30       | 35                      | 3HD12V-F |
| ELM5XXX3RC12V  | RED                     | 700           | WATER CLEAR     | -                    | -      | 12  | 6        | 20                      | 3RC12V-F |
| ELM5XXX3RD12V  | RED                     | 700           | DIFFUSED        | -                    | -      | 12  | 2        | 35                      | 3RD12V-F |
| ELM5XXX3YC12V  | YELLOW                  | 590           | WATER CLEAR     | -                    | -      | 12  | 40       | 20                      | 3YC12V-F |
| ELM5XXX3YD12V  | YELLOW                  | 590           | DIFFUSED        | -                    | -      | 12  | 25       | 35                      | 3YD12V-F |

|   |  |   |   |
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| ANGULAR<br>X° ± 5°  |  |   |   |
| DESIGNED:<br><b>Minh Doan</b>   |  | DATE:<br><b>07/27/12</b>  | <b>TITLE:</b> EXTRUDED VERTICAL T-1 (3mm)<br>LED STANDARD PROFILE SPACER ASSY<br><br><b>PART NO:</b> ELM5XXX3XX<br><b>REVISION:</b> N |
| CHECKED:<br><b>T. Yin</b>   |  | DATE:<br><b>07/27/12</b>  |   |
|   |  | <b>CAGE CODE :</b> 32559  | <b>SHEET # 4 OF 5</b>   |
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## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

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