

| ITEM | Q'TY | PART NUMBER | PART DESCRIPTION                        |
|------|------|-------------|---|
| 1    | 1    | 5XX-F       | T-1 ¼ (5mm) Flange LED, See sheet 2 & 3 |
| 2    | 1    | ELM8XXX     | Extruded, Self-Retaining LED Spacer     |

| REV. | DESCRIPTION                          | DATE     | APPROVED |
|------|--------------------------------------|----------|----------|
| B    | Updated Drawing to Show Flanged LED. | 10/17/06 | M. C.    |
| C    | Changed Spacer from ELM3 to ELM8.    | 01/17/07 | M. C.    |
| D    | Added -F to Sheets 2 and 3.          | 01/04/08 | M. C.    |
| E    | Removed Tolerance Note.              | 09/03/08 | M. C.    |
| F    | Added Bi-Color LEDs on Sheet 3       | 02/09/11 | T. Y.    |
| G    | Added Tape & Reel Options            | 06/07/11 | T. Y.    |
| H    | Tape & Reel Design Update            | 11/21/11 | T. Y.    |



| BI-COLOR POLARITY |             |             |
|-------------------|-------------|-------------|
| LED P/N           | (1) Cathode | (2) Cathode |
| 5BC-F             | Green       | Red         |
| 5BC-Y/G-F         | Green       | Yellow      |



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

REVERSE VOLTAGE \_\_\_\_\_ 5V  
 REVERSE CURRENT ( VR=5V) \_\_\_\_\_ 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 ) |                          | 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> Extruded Vertical T-1 ¼ (5mm)<br>LED Standard Spacer Profile Assy |                       |
| .XXX ± .010  |                          | <b>PART NO:</b> ELM3XXX5XX  |                       |
| DESIGNED:<br><b>Sonny Dam</b>                        | DATE:<br><b>05/05/06</b> | REVISION:<br><b>H</b>   |                       |
| CHECKED:<br><b>T. Yin</b>                            | DATE:<br><b>05/05/06</b> | <b>CAGE CODE :</b> 32559  | <b>SHEET # 1 OF 4</b> |
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|      |              |      |          |
|------|--------------|------|----------|
| REV. | DESCRIPTION  | DATE | APPROVED |
|      | See Sheet #1 |      |          |

| LED Part No. | Chip       |                                   |               | Lens Appearance | Absolute Maximum Ratings |         |         |              | Electro-Optical Data @ 20mA |      |          | Viewing Angle (Deg) |
|--------------|------------|-----------------------------------|---------------|-----------------|--------------------------|---------|---------|--------------|-----------------------------|------|----------|---------------------|
|              | Material   | Peak Wave Length $\lambda_p$ (nm) | Emitted Color |                 | $\Delta\lambda$ (nm)     | Pd (mW) | If (mA) | Peak If (mA) | Vf (V)                      |      | Iv (mcd) |                     |
|              |            |                                   |               |                 |                          |         |         |              | Typ.                        | Max. | Typ.     |                     |
| 5BWC-F       | GaN/SiC    | 430                               | BLUE          | WATER CLEAR     | 65                       | 150     | 25      | 70           | 4.0                         | 4.5  | 125      | 20                  |
| 5BWD-F       | GaN/SiC    | 430                               | BLUE          | DIFFUSED        | 65                       | 150     | 25      | 70           | 4.0                         | 4.5  | 30       | 45                  |
| 5BWT-F       | GaN/SiC    | 430                               | BLUE          | TINTED          | 65                       | 150     | 25      | 70           | 4.0                         | 4.5  | 125      | 20                  |
| 5PGC-F       | GaP/GaP    | 555                               | PURE GREEN    | WATER CLEAR     | 30                       | 80      | 30      | 150          | 2.2                         | 2.6  | 30       | 30                  |
| 5PGD-F       | GaP/GaP    | 555                               | PURE GREEN    | DIFFUSED        | 30                       | 80      | 30      | 150          | 2.2                         | 2.6  | 15       | 45                  |
| 5PGT-F       | GaP/GaP    | 555                               | PURE GREEN    | TINTED          | 30                       | 80      | 30      | 150          | 2.2                         | 2.6  | 30       | 30                  |
| 5GC-F        | GaP/GaP    | 565                               | GREEN         | WATER CLEAR     | 30                       | 80      | 30      | 150          | 2.2                         | 2.6  | 150      | 20                  |
| 5GD-F        | GaP/GaP    | 565                               | GREEN         | DIFFUSED        | 30                       | 80      | 30      | 150          | 2.2                         | 2.6  | 70       | 45                  |
| 5GT-F        | GaP/GaP    | 565                               | GREEN         | TINTED          | 30                       | 80      | 30      | 150          | 2.2                         | 2.6  | 150      | 20                  |
| 5YC-F        | GaAsP/GaP  | 585                               | YELLOW        | WATER CLEAR     | 35                       | 80      | 30      | 150          | 2.1                         | 2.6  | 140      | 20                  |
| 5YD-F        | GaAsP/GaP  | 585                               | YELLOW        | DIFFUSED        | 35                       | 80      | 30      | 150          | 2.1                         | 2.6  | 70       | 45                  |
| 5YT-F        | GaAsP/GaP  | 585                               | YELLOW        | TINTED          | 35                       | 80      | 30      | 150          | 2.1                         | 2.6  | 140      | 20                  |
| 5AC-F        | GaAsP/GaP  | 610                               | AMBER         | WATER CLEAR     | 35                       | 80      | 30      | 150          | 2.2                         | 2.6  | 70       | 20                  |
| 5AD-F        | GaAsP/GaP  | 610                               | AMBER         | DIFFUSED        | 35                       | 80      | 30      | 150          | 2.2                         | 2.6  | 45       | 45                  |
| 5AT-F        | GaAsP/GaP  | 610                               | AMBER         | TINTED          | 35                       | 80      | 30      | 150          | 2.2                         | 2.6  | 70       | 20                  |
| 5HC-F        | GaAsP/GaP  | 635                               | HE RED        | WATER CLEAR     | 45                       | 80      | 30      | 150          | 2.0                         | 2.6  | 150      | 20                  |
| 5HD-F        | GaAsP/GaP  | 635                               | HE RED        | DIFFUSED        | 45                       | 80      | 30      | 150          | 2.0                         | 2.6  | 80       | 45                  |
| 5HT-F        | GaAsP/GaP  | 653                               | HE RED        | TINTED          | 45                       | 80      | 30      | 150          | 2.0                         | 2.6  | 150      | 20                  |
| 5RC-F        | GaAsP/GaAs | 655                               | RED           | WATER CLEAR     | 40                       | 80      | 40      | 200          | 1.7                         | 2.0  | 15       | 20                  |
| 5RD-F        | GaAsP/GaAs | 655                               | RED           | DIFFUSED        | 40                       | 80      | 40      | 200          | 1.7                         | 2.0  | 5        | 45                  |
| 5RT-F        | GaAsP/GaAs | 655                               | RED           | TINTED          | 40                       | 80      | 40      | 200          | 1.7                         | 2.0  | 15       | 20                  |

|  |  |  |  |
|--|--|--|--|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br>10% All Values |  | <br><b>BIVAR</b> <sup>®</sup><br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808 FAX: (949) 951-3974 |  |
| ANGULAR<br>X° ± 1°   |  |  |  |
| DESIGNED:<br><b>Sonny Dam</b>  |  | DATE:<br><b>05/05/06</b>   |  <b>TITLE: Extruded Vertical T-1 3/4 (5mm)<br/>LED Standard Spacer Profile Assy</b> |
| CHECKED:<br><b>T. Yin</b>  |  | DATE:<br><b>05/05/06</b>   |  |
|  |  | <b>PART NO:</b><br><b>ELM3XXX5XX</b>   | <b>REVISION:</b><br><b>H</b>   |
|  |  | <b>CAGE CODE : 32559</b>   | <b>SHEET # 2 OF 4</b>  |
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| REV. | DESCRIPTION  | DATE | APPROVED |
|------|--------------|------|----------|
|      | See Sheet #1 |      |          |

| LED Part No. | Chip       |                                   |               | Lens Appearance | Absolute Maximum Ratings |         |         |              | Electro-Optical Data @ 2mA |      |          | Viewing Angle (Deg) |
|--------------|------------|-----------------------------------|---------------|-----------------|--------------------------|---------|---------|--------------|----------------------------|------|----------|---------------------|
|              | Material   | Peak Wave Length $\lambda_p$ (nm) | Emitted Color |                 | $\Delta\lambda$ (nm)     | Pd (mW) | If (mA) | Peak If (mA) | Vf (V)                     |      | Iv (mcd) |                     |
|              |            |                                   |               |                 |                          |         |         |              | Typ.                       | Max. | Typ.     |                     |
| 5BWDL-F      | GaN/SiC    | 430                               | BLUE          | DIFFUSED        | 65                       | 90      | 5       | -            | 3.5                        | 4.0  | 6.0      | 45                  |
| 5PGDL-F      | GaP/GaP    | 555                               | PURE GREEN    | DIFFUSED        | 25                       | 10      | 5       | -            | 1.9                        | 2.2  | 1.0      | 45                  |
| 5GDL-F       | GaP/GaP    | 565                               | GREEN         | DIFFUSED        | 30                       | 10      | 5       | -            | 1.9                        | 2.2  | 3.0      | 45                  |
| 5YDL-F       | GaAsP/GaP  | 585                               | YELLOW        | DIFFUSED        | 35                       | 10      | 5       | -            | 1.9                        | 2.2  | 3.0      | 45                  |
| 5ADL-F       | GaAsP/GaP  | 610                               | AMBER         | DIFFUSED        | 35                       | 10      | 5       | -            | 1.9                        | 2.2  | 6.0      | 45                  |
| 5HDL-F       | GaAsP/GaP  | 635                               | HE RED        | DIFFUSED        | 45                       | 10      | 5       | -            | 1.8                        | 2.2  | 3.0      | 45                  |
| 5RDL-F       | GaAsP/GaAs | 660                               | SUPER RED     | DIFFUSED        | 40                       | 10      | 5       | -            | 1.9                        | 2.2  | 15.0     | 45                  |

| LED Part No. | Chip      |                                   |               | Lens Appearance | Absolute Maximum Ratings |         |         |              | Electro-Optical Data @ 10mA |      |          | Viewing Angle (Deg) |
|--------------|-----------|-----------------------------------|---------------|-----------------|--------------------------|---------|---------|--------------|-----------------------------|------|----------|---------------------|
|              | Material  | Peak Wave Length $\lambda_p$ (nm) | Emitted Color |                 | $\Delta\lambda$ (nm)     | Pd (mW) | If (mA) | Peak If (mA) | Vf (V)                      |      | Iv (mcd) |                     |
|              |           |                                   |               |                 |                          |         |         |              | Typ.                        | Max. | Typ.     |                     |
| 5GD5V-F      | GaP/GaP   | 565                               | GREEN         | DIFFUSED        | -                        | -       | 8       | 12           | -                           | 5.0  | 25.0     | 45                  |
| 5YD5V-F      | GaAsP/GaP | 585                               | YELLOW        | DIFFUSED        | -                        | -       | 8       | 12           | -                           | 5.0  | 20.0     | 45                  |
| 5AD5V-F      | GaAsP/GaP | 610                               | AMBER         | DIFFUSED        | -                        | -       | 8       | 12           | -                           | 5.0  | 60.0     | 45                  |
| 5HD5V-F      | GaAsP/GaP | 635                               | HE RED        | DIFFUSED        | -                        | -       | 8       | 12           | -                           | 5.0  | 50.0     | 45                  |
| 5RD5V-F      | GaAsP/GaP | 655                               | RED           | DIFFUSED        | -                        | -       | 8       | 12           | -                           | 5.0  | 15.0     | 45                  |

| LED Part No. | Chip      |                                   |               | Lens Appearance | Absolute Maximum Ratings |         |         |              | Electro-Optical Data @ 10mA |      |          | Viewing Angle (Deg) |
|--------------|-----------|-----------------------------------|---------------|-----------------|--------------------------|---------|---------|--------------|-----------------------------|------|----------|---------------------|
|              | Material  | Peak Wave Length $\lambda_p$ (nm) | Emitted Color |                 | $\Delta\lambda$ (nm)     | Pd (mW) | If (mA) | Peak If (mA) | Vf (V)                      |      | Iv (mcd) |                     |
|              |           |                                   |               |                 |                          |         |         |              | Typ.                        | Max. | Typ.     |                     |
| 5BC-F        | GaAsP/GaP | 625                               | RED           | DIFFUSED        | -                        | 80      | 20      | 150          | 2.0                         | 2.8  | 8.0      | 45                  |
|              | GaP/GaP   | 568                               | GREEN         | DIFFUSED        | -                        | 80      | 20      | 150          | 2.1                         | 2.8  | 8.0      | 45                  |
| 5BC-Y/G-F    | GaAsP/GaP | 590                               | YELLOW        | DIFFUSED        | -                        | 85      | 20      | 150          | 2.0                         | 2.8  | 6.0      | 45                  |
|              | GaP/GaP   | 568                               | GREEN         | DIFFUSED        | -                        | 80      | 20      | 150          | 2.1                         | 2.8  | 8.0      | 45                  |

|   |                          |  |                       |
|---|--------------------------|--|-----------------------|
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| ANGULAR<br>X° ± 1°  |                          |  |                       |
|  |                          | <b>TITLE:</b> Extruded Vertical T-1¼ (5mm)<br>LED Standard Spacer Profile Assy   |                       |
| DESIGNED:<br><b>Sonny Dam</b>   | DATE:<br><b>05/05/06</b> | <b>PART NO:</b><br>ELM3XXX5XX  | REVISION:<br><b>H</b> |
| CHECKED:<br><b>T. Yin</b>   | DATE:<br><b>05/05/06</b> | <b>CAGE CODE :</b> 32559   | <b>SHEET #</b> 3 OF 4 |
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| REV. | DESCRIPTION  | DATE | APPROVED |
|------|--------------|------|----------|
|      | SEE SHEET #1 |      |          |
|      |              |      |          |
|      |              |      |          |
|      |              |      |          |
|      |              |      |          |



STANDARD PACKAGING TRAY



TAPE & REEL  
1,000 pcs / reel



AMMO PACK  
2,000 pcs / box

- NOTE:
1. STANDARD PART NUMBERS ARE PACKAGED IN LOOSE PIECES USING PACKAGING TRAYS
  2. ADD "T" SUFFIX TO PART NUMBER FOR TAPE AND REEL PACKAGING OPTION (1,000 PCS/REEL)
  3. ADD "A" SUFFIX TO PART NUMBER FOR AMMO PACK OPTION (2,000 PCS/BOX)
  4. TAPE AND REEL PACKAGING COMPLY TO EIA-468-C

| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED ) |                          | REVISION:  |                       |
|--|--------------------------|--|-----------------------|
| DECIMALS   | ANGULAR                  | <b>BIVAR</b> ®   |                       |
| .X ± .1  | X° ± 1°                  | 4 THOMAS, IRVINE, CA. 92618  |                       |
| .XX ± .02  |                          | TEL: (949) 951-8808 FAX: (949) 951-3974  |                       |
| .XXX ± .010  |                          | <b>TITLE:</b> Extruded Vertical T1 3/4 (5mm)<br>LED Standard Spacer Profile Assy |                       |
| DESIGNED:<br><b>Sonny Dam</b>                        | DATE:<br><b>05/05/06</b> | <b>PART NO:</b><br>ELM3XXX5XX  | <b>REVISION:</b><br>H |
| CHECKED:<br><b>T. Yin</b>                            | DATE:<br><b>05/05/06</b> | <b>CAGE CODE :</b> 32559   | <b>SHEET # 4 OF 4</b> |
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## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

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

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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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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

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