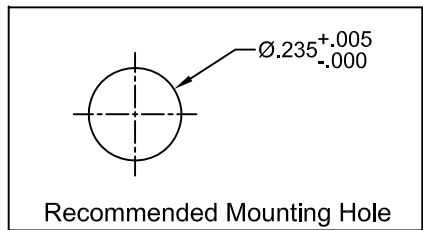
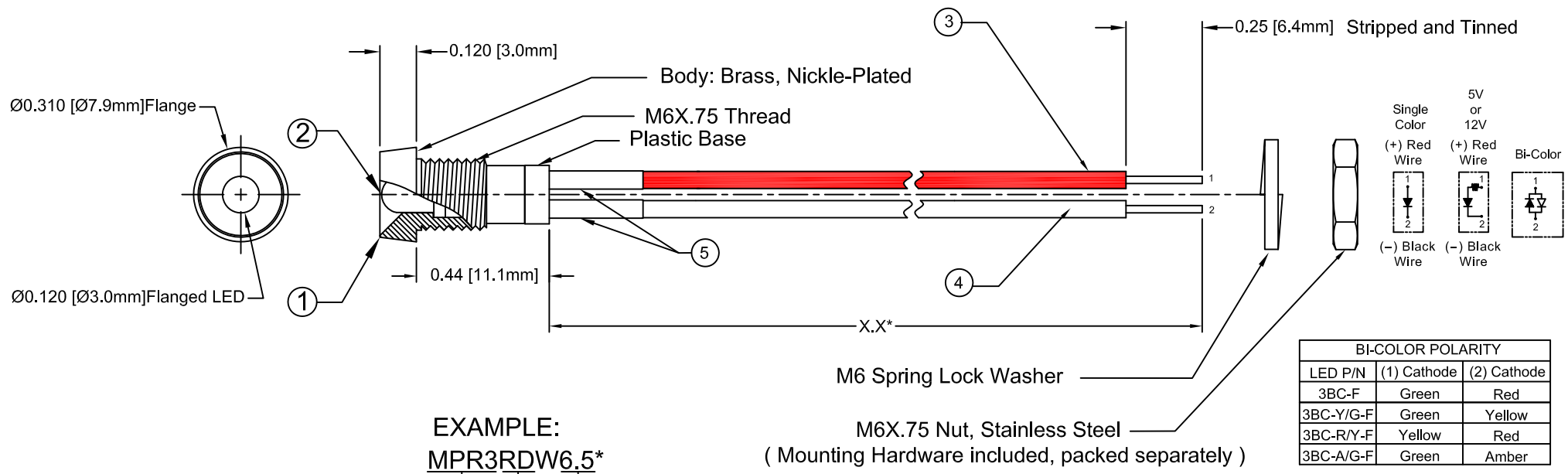




| ITEM | Q'TY | PART NUMBER | PART DESCRIPTION |
|------|------|-------------|--|
| 1 | 1 | MPR3 | Chrome Panel Mount Holder, 3mm |
| 2 | 1 | 3XXX-F | T-1 (3mm) Flanged LED, See Following Pages |
| 3 | 1 | BWS24AWG-RD | 24AWG Wire Lead U.L. 1007, Red |
| 4 | 1 | BWS24AWG-BK | 24AWG Wire Lead U.L. 1007, Black |
| 5 | 2 | BST200-BK | Shrink Tubing, Black, .5" Cut Length |

| REV. | DESCRIPTION | DATE | APPROVED |
|------|---------------------------------|----------|----------|
| A | Engineering Release. | 07/27/07 | M. C. |
| B | Shrink Tubing Length Update. | 03/23/09 | T. Y. |
| C | Updated LED offering | 05/03/12 | T. Y. |
| D | Updated Bi-Color Polarity Table | 12/18/12 | T. Y. |
| E | Updated Typo On Page 4 | 06/12/14 | J. C. |




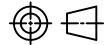
ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

| | |
|--|---------------------|
| 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 |

| | | | |
|---|-----------------|---|--|
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| DECIMALS | ANGULAR | | |
| .X ±.1 | X° ± 1° | | |
| .XX ±.02 | |  TITLE: STD METAL PANEL MOUNT INDICATORS W/ WIRES | |
| .XXX ±.010 | | | |
| DESIGNED: | DATE: | PART NO: MPR3XXWX.X CAGE CODE : 32559 SHEET # 1 OF 4 | |
| Dan Beckman | 07/27/07 | | |
| CHECKED: | DATE: | REVISION: E CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING. | |
| T. Yin | 07/27/07 | | |


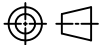
| | | | |
|------|--------------|------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| | SEE SHEET#1. | | |

| 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 | | |
| MPR3BWCWX.X | GaN/SiC | 430 | BLUE | WATER CLEAR | 25 | 4 | 4.5 | 15 | 20 | 3BWC-F |
| MPR3BWDWX.X | GaN/SiC | 430 | BLUE | DIFFUSED | 25 | 4 | 4.5 | 10 | 35 | 3BWD-F |
| MPR3BWTWX.X | GaN/SiC | 430 | BLUE | TINTED | 25 | 4 | 4.5 | 15 | 20 | 3BWT-F |
| MPR3GCWX.X | GaP/GaP | 568 | GREEN | WATER CLEAR | 30 | 2.1 | 2.8 | 40 | 20 | 3GC-F |
| MPR3GDWX.X | GaP/GaP | 568 | GREEN | DIFFUSED | 30 | 2.1 | 2.8 | 25 | 35 | 3GD-F |
| MPR3GTWX.X | GaP/GaP | 568 | GREEN | TINTED | 30 | 2.1 | 2.8 | 40 | 20 | 3GT-F |
| MPR3PGCWX.X | GaP/GaP | 555 | PURE GREEN | WATER CLEAR | 30 | 2.2 | 2.8 | 10 | 20 | 3PGC-F |
| MPR3PGDWX.X | GaP/GaP | 555 | PURE GREEN | DIFFUSED | 30 | 2.2 | 2.8 | 5 | 35 | 3PGD-F |
| MPR3PGTWX.X | GaP/GaP | 555 | PURE GREEN | TINTED | 30 | 2.2 | 2.8 | 10 | 20 | 3PGT-F |
| MPR3YCWX.X | GaAsP/GaP | 590 | YELLOW | WATER CLEAR | 30 | 2 | 2.8 | 40 | 20 | 3YC-F |
| MPR3YDWX.X | GaAsP/GaP | 590 | YELLOW | DIFFUSED | 30 | 2 | 2.8 | 20 | 35 | 3YD-F |
| MPR3YTWX.X | GaAsP/GaP | 590 | YELLOW | TINTED | 30 | 2 | 2.8 | 40 | 20 | 3YT-F |
| MPR3ACWX.X | GaAsP/GaP | 605 | AMBER | WATER CLEAR | 30 | 2 | 2.8 | 40 | 20 | 3AC-F |
| MPR3ADWX.X | GaAsP/GaP | 605 | AMBER | DIFFUSED | 30 | 2 | 2.8 | 25 | 35 | 3AD-F |
| MPR3ATWX.X | GaAsP/GaP | 605 | AMBER | TINTED | 30 | 2 | 2.8 | 40 | 20 | 3AT-F |
| MPR3HCWX.X | GaAsP/GaP | 625 | HE RED | WATER CLEAR | 30 | 2 | 2.8 | 50 | 20 | 3HC-F |
| MPR3HDWX.X | GaAsP/GaP | 625 | HE RED | DIFFUSED | 30 | 2 | 2.8 | 30 | 35 | 3HD-F |
| MPR3HTWX.X | GaAsP/GaP | 625 | HE RED | TINTED | 30 | 2 | 2.8 | 50 | 20 | 3HT-F |
| MPR3RCWX.X | GaP/GaP | 700 | RED | WATER CLEAR | 20 | 2.1 | 2.8 | 2.5 | 35 | 3RC-F |
| MPR3RDWX.X | GaP/GaP | 700 | RED | DIFFUSED | 20 | 2.1 | 2.8 | 2 | 20 | 3RD-F |
| MPR3RTWX.X | GaP/GaP | 700 | RED | TINTED | 20 | 2.1 | 2.8 | 2.5 | 20 | 3RT-F |
| MPR3BCWX.X-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 | | |
| MPR3BCWX.X | GaAsP/GaP | 625 | RED | DIFFUSED | 30 | 2.0 | 2.8 | 6 | 45 | 3BC-F |
| | GaP/GaP | 568 | GREEN | | 30 | 2.1 | 2.8 | 6 | | |
| MPR3BCWX.X-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 | | |
| MPR3BCWX.X-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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|  | | | |
| DESIGNED: Dan Beckman | DATE: 07/27/07 | PART NO: MPR3XXWX.X | REVISION: E |
| CHECKED: T. Yin | DATE: 07/27/07 | | CAGE CODE : 32559 SHEET # 2 OF 4 <small>CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING.</small> |

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


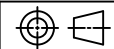
| LED Assy. No. | Chip | | | Lens Appearance | Electro-Optical Data @ 20mA | | | | Viewing Angle 2 θ ½ (Deg) | LED P/N |
|---------------|----------------|------------------|---------------|-----------------|-----------------------------|--------|-----|----------|---------------------------|--------------|
| | Material | Peak Wave Length | Emitted Color | | If (mA) | Vf (V) | | Iv (mcd) | | |
| | | | | | MAX | TYP | MAX | TYP | | |
| MPR3UBWCWX.X | GaN/SiC | 470 | BLUE | WATER CLEAR | 30 | 4 | 4.5 | 400 | 30 | 3UBWC-0.6K-F |
| MPR3SGCWX.X | GaP/GaP | 568 | GREEN | WATER CLEAR | 30 | 2.1 | 2.8 | 50 | 20 | 3SGC-F |
| MPR3SGDWX.X | GaP/GaP | 568 | GREEN | DIFFUSED | 30 | 2.1 | 2.8 | 30 | 35 | 3SGD-F |
| MPR3SGTWX.X | GaP/GaP | 568 | GREEN | TINTED | 30 | 2.1 | 2.8 | 50 | 20 | 3SGT-F |
| MPR3SYCWX.X | GaAsP/GaP | 590 | YELLOW | WATER CLEAR | 30 | 2.0 | 2.8 | 50 | 20 | 3SYC-F |
| MPR3SYDWX.X | GaAsP/GaP | 590 | YELLOW | DIFFUSED | 30 | 2.0 | 2.8 | 30 | 35 | 3SYD-F |
| MPR3SYTWX.X | GaAsP/GaP | 590 | YELLOW | TINTED | 30 | 2.0 | 2.8 | 50 | 20 | 3SYT-F |
| MPR3SACWX.X | AlGaInP | 605 | AMBER | WATER CLEAR | 30 | 1.8 | 2.4 | 300 | 20 | 3SAC-F |
| MPR3SADWX.X | AlGaInP | 605 | AMBER | DIFFUSED | 30 | 1.8 | 2.4 | 100 | 35 | 3SAD-F |
| MPR3SATWX.X | AlGaInP | 605 | AMBER | TINTED | 30 | 1.8 | 2.4 | 300 | 20 | 3SAT-F |
| MPR3SRCWX.X | GaAlAs/GaAs | 645 | SUPER RED | WATER CLEAR | 30 | 1.7 | 2.4 | 60 | 20 | 3SRC-F |
| MPR3SRDWX.X | GaAlAs/GaAs | 645 | SUPER RED | DIFFUSED | 30 | 1.7 | 2.4 | 40 | 35 | 3SRD-F |
| MPR3SRTWX.X | GaAlAs/GaAs | 645 | SUPER RED | TINTED | 30 | 1.7 | 2.4 | 60 | 20 | 3SRT-F |
| MPR3UGCWX.X | AlGaInP | 570 | GREEN | WATER CLEAR | 30 | 2.1 | 2.4 | 200 | 20 | 3UGC-F |
| MPR3SUGCWX.X | AlGaInP | 570 | GREEN | WATER CLEAR | 30 | 2.1 | 2.4 | 300 | 35 | 3SUGC-F |
| MPR3UYCWX.X | AlGaInP | 590 | YELLOW | WATER CLEAR | 30 | 2.0 | 2.4 | 300 | 20 | 3UYC-F |
| MPR3SUycWX.X | AlGaInP | 590 | YELLOW | WATER CLEAR | 30 | 2.0 | 2.4 | 400 | 20 | 3SUyc-F |
| MPR3UUycWX.X | AlGaInP | 590 | YELLOW | WATER CLEAR | 30 | 2.0 | 2.4 | 600 | 35 | 3UUyc-F |
| MPR3UOCWX.X | AlGaInP | 625 | ORANGE | WATER CLEAR | 30 | 1.8 | 2.4 | 300 | 20 | 3UOC-F |
| MPR3SUOCWX.X | AlGaInP | 625 | ORANGE | WATER CLEAR | 30 | 1.8 | 2.4 | 400 | 20 | 3SUOC-F |
| MPR3URCWX.X | GaAlAs/GaAs | 645 | RED | WATER CLEAR | 30 | 1.7 | 2.4 | 200 | 35 | 3URC-F |
| MPR3SURCWX.X | AlGaInP | 640 | RED | WATER CLEAR | 30 | 1.8 | 2.4 | 200 | 20 | 3SURC-F |
| MPR3UWCWX.X | InGaN/Sapphire | 6500K | WHITE | WATER CLEAR | 30 | 3.4 | 3.8 | 1000 | 35 | 3UWC1.035C-F |

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|  | | | |
| DESIGNED: Dan Beckman | DATE: 07/27/07 | PART NO: MPR3XXWX.X | REVISION: E |
| CHECKED: T. Yin | DATE: 07/27/07 | CAGE CODE : 32559 | SHEET # 3 OF 4 |
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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 2 θ ½ (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 | | |
| MPR3BWDLWX.X | GaN/siC | 430 | BLUE | DIFFUSED | 20 | 7 | - | 3.8 | 4.2 | 2.5 | 35 | 3BWDL-F |
| MPR3GDLWX.X | GaP/GaP | 568 | GREEN | DIFFUSED | 10 | 7 | - | 2.1 | 2.6 | 4.0 | 35 | 3GDL-F |
| MPR3PGDLWX.X | GaP/GaP | 555 | PURE GREEN | DIFFUSED | 10 | 7 | - | 2.1 | 2.6 | 0.2 | 35 | 3PGDL-F |
| MPR3YDLWX.X | GaAsP/GaP | 590 | YELLOW | DIFFUSED | 10 | 7 | - | 2.0 | 2.6 | 2.0 | 35 | 3YDL-F |
| MPR3ADLWX.X | GaAsP/GaP | 605 | AMBER | DIFFUSED | 10 | 7 | - | 2.0 | 2.6 | 4.0 | 35 | 3ADL-F |
| MPR3HDLWX.X | GaAsP/GaP | 625 | HE RED | DIFFUSED | 10 | 7 | - | 2.0 | 2.6 | 2.5 | 35 | 3HDL-F |
| MPR3RDLWX.X | GaP/GaP | 700 | RED | DIFFUSED | 10 | 7 | - | 2.1 | 2.6 | 0.5 | 35 | 3RDL-F |
| MPR3SRDLWX.X | 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 2 θ ½ (Deg) | LED P/N |
|----------------|----------------------------|---------------|-----------------|----------------------|-----------|-----|-------------|---------------------------------|----------|
| | | | | If (mA) | Vf (V) | | Iv (mcd) | | |
| | | | | MAX | TYP | MAX | TYP | | |
| 5 Volt | | | | Data @ 5V | | | | | |
| MPR3BWD5VWX.X | BLUE | 430 | DIFFUSED | - | - | 5 | 10 | 35 | 3BWD5V-F |
| MPR3GC5VWX.X | GREEN | 568 | WATER CLEAR | - | - | 5 | 40 | 20 | 3GC5V-F |
| MPR3GD5VWX.X | GREEN | 568 | DIFFUSED | - | - | 5 | 25 | 35 | 3GD5V-F |
| MPR3GT5VWX.X | GREEN | 568 | TINTED | - | - | 5 | 40 | 20 | 3GT5V-F |
| MPR3AD5VWX.X | AMBER | 605 | DIFFUSED | - | - | 5 | 25 | 35 | 3AD5V-F |
| MPR3HD5VWX.X | HE RED | 625 | DIFFUSED | - | - | 5 | 30 | 35 | 3HD5V-F |
| MPR3RD5VWX.X | RED | 700 | DIFFUSED | - | - | 5 | 2 | 35 | 3RD5V-F |
| MPR3YD5VWX.X | YELLOW | 590 | DIFFUSED | - | - | 5 | 20 | 35 | 3YD5V-F |
| 12 Volt | | | | Data @ 12V | | | | | |
| MPR3GC12VWX.X | GREEN | 568 | WATER CLEAR | - | - | 12 | 40 | 20 | 3GC12V-F |
| MPR3GD12VWX.X | GREEN | 568 | DIFFUSED | - | - | 12 | 25 | 35 | 3GD12V-F |
| MPR3HC12VWX.X | HE RED | 625 | WATER CLEAR | - | - | 12 | 50 | 20 | 3HC12V-F |
| MPR3HD12VWX.X | HE RED | 625 | DIFFUSED | - | - | 12 | 30 | 35 | 3HD12V-F |
| MPR3RC12VWX.X | RED | 700 | WATER CLEAR | - | - | 12 | 6 | 20 | 3RC12V-F |
| MPR3RD12VWX.X | RED | 700 | DIFFUSED | - | - | 12 | 2 | 35 | 3RD12V-F |
| MPR3YC12VWX.X | YELLOW | 590 | WATER CLEAR | - | - | 12 | 40 | 20 | 3YC12V-F |
| MPR3YD12VWX.X | YELLOW | 590 | DIFFUSED | - | - | 12 | 25 | 35 | 3YD12V-F |

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|  | | | |
| DESIGNED: Dan Beckman | DATE: 07/27/07 | PART NO: MPR3XXWX.X | REVISION: E |
| CHECKED: T. Yin | DATE: 07/27/07 | CAGE CODE : 32559 | SHEET # 4 OF 4 |
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