



# Customer Product/Process Change Notification

PCN # OES15040601\_55X\_561

Issued Date: 4/6/2015

Issued By: Patrick Farrell

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Change affects whole product family?  No

**Part #'s affected (See attached if entire product family is affected)**

5219724F, 5593201001F, 5593201003F, 5593201007F, 5593201023F, 5593201027F, 550-3104F, 5503104004F, 5503105003F, 5503105004F, 550-3107F, 5503107002F, 5503107004F, 5503107010F, 5503108F, 5503110F, 5520742F, 5520744F, 5520744010F, 5520794810F, 5613101050F, 5613101060F, 5613101070F, 5613101080F, 5613101090F, 5613101100F, 559-0001-820F

**Description of Change:**

New AlInGaP die used in LEDs instead of GaAsP/GaP. New parts will be brighter (comparison table below). New LEDs are form, fit, function replacements

**Reason for Change:**

LEDs Die AlInGaP is getting brighter due to the demand for higher brightness LED technology

**Properties of Old vs. Changed Product:**

See attached Comparison Specs.

**Disposition of Old Product:**

Sell until inventory is depleted

Expected Implementation Date:

Customer Feedback Expected by:

**Additional Comments: (Include Potential Risks if Appropriate)**

**Supporting Qualification Data:**

**Approved By:**

(Minimum of three approvals are required.)

Vice President of Operations: \_\_\_\_\_

Vice President of Sales OED/Signals: \_\_\_\_\_

Product Manager: Shaun Koehler

Director of Customer Service: Kathy Smith

Director of Quality: Rich Liskoff

| LED COMPARISON TABLE:  |                               |     |     |     | NEW AlInGaP Replacement LED   |     |     |     |
|--|-------------------------------|-----|-----|-----|---|-----|-----|-----|
| <b>521-9724F EOL LED</b>   |                               |     |     |     |   |     |     |     |
| <b>5MM Y/G Bi Color 2 LEADED LED WHITE EPOXY</b>   |                               |     |     |     | <b>559-3201-001,F-003F,-007F,-023F,-027F,550-3104F,550-3104-004F</b>  |     |     |     |
| <b>DIFFUSED</b>  |                               |     |     |     | <b>550-3105F,-003F,-004F,550-3107F,-002F,-004F,-010F,550-3108F,550-3110F,552-0742F,552-0744F,-010F,-0794-810F,561-3101-050F,-060F,-070F,-080F,090F,-100F, 559-0001-820F</b> |     |     |     |
| <b>OPERATING CHARACTERISTICS @ 25° AMBIENT</b>   |                               |     |     |     | <b>OPERATING CHARACTERISTICS @ 25° AMBIENT</b>  |     |     |     |
|  | If                            | MIN | TYP | MAX | If  | MIN | TYP | MAX |
| LUMINOUS INTENSITY (mcd) Yellow  | 20                            | 2.5 | 8.7 |     | 20  | 11  | 30  | 50  |
| LUMINOUS INTENSITY (mcd) Green   | 20                            | 2.5 | 8.7 |     | 20  | 18  | 50  | 85  |
| FORWARD VOLTAGE (V) YELLOW   | 20                            |     | 2.1 | 2.8 | 20  | 1.6 | 2.1 | 2.6 |
| FORWARD VOLTAGE (V) GREEN  | 20                            |     | 2.1 | 2.8 | 20  | 1.6 | 2.1 | 2.6 |
| PEAK WAVELENGTH (nm) YELLOW  |                               |     | 585 |     |   |     | 591 |     |
| PEAK WAVELENGTH (nm) GREEN   |                               |     | 565 |     |   |     | 573 |     |
| DOMINANT WAVELENGTH (nm) YELLOW  |                               |     |     |     |   | 586 | 589 | 593 |
| DOMINANT WAVELENGTH (nm) GREEN   |                               |     |     |     |   | 567 | 571 | 574 |
| VIEWING ANGLE 2θ1/2 (deg)  | 50                            |     |     |     | 50  |     |     |     |
| <b>ABSOLUTE MAXIMUM RATINGS @ TA=25° C</b>   |                               |     |     |     | <b>ABSOLUTE MAXIMUM RATINGS @ TA=25° C</b>  |     |     |     |
| POWER DISSIPATION (mW)   | 100 yellow,60 green           |     |     |     | 52  |     |     |     |
| Transient pulsed CURRENT(mA) 10micro sec pulse   | 120 yellow,80 green           |     |     |     | 60  |     |     |     |
| CONTINUOUS FORWARD CURRENT (mA)  | 20 yellow, 30 green           |     |     |     | 20  |     |     |     |
| DERATING LINERALLY FROM (mA/C°)  | (50°) 0.25 yellow; 0.40 green |     |     |     | (50°) 0.4   |     |     |     |
| REVERSE CURRENT  | 5v Ir =100 micro amp          |     |     |     | 5V Ir=100 micro amps SEE NOTE   |     |     |     |
| OPERATING TEMP. RANGE (C°)   | -55 TO +100                   |     |     |     | -40 to +100   |     |     |     |
| STORAGE TEMP. RANGE (C°)   | -55 TO +100                   |     |     |     | -40 to +100   |     |     |     |
| LEAD SOLDERING TEMP. (C°) 1/16th from base   | 260C FOR 5 SECONDS            |     |     |     | 260C FOR 5 SECONDS  |     |     |     |
| <b>PHYSICAL DIMENSIONS</b>   |                               |     |     |     | <b>PHYSICAL DIMENSIONS</b>  |     |     |     |
| LED EMITTING COLOR   | YELLOW                        |     |     |     | YELLOW  |     |     |     |
| LED EMITTING COLOR   | GREEN                         |     |     |     | GREEN   |     |     |     |
| LED EPOXY COLOR  | WHITE DIFFUSED                |     |     |     | WHITE DIFFUSED  |     |     |     |
| LED LEADS  | Pb FREE RoHS                  |     |     |     | Pb FREE RoHS  |     |     |     |
| LED DIE TECHNOLOGY   | GaAsP/GaP                     |     |     |     | AlInGaP   |     |     |     |
| NOTES:   |                               |     |     |     |   |     |     |     |
| REVERSE VOLTAGE Vr Condition is applied for IR test only. The device is not designed for REVERSE OPERATION |                               |     |     |     |   |     |     |     |