



Customer Product/Process Change Notification

PCN # OES16021801_5XX

Issued Date: 2/10/2016

Issued By: Nick Oesterheld

Author: Nick Oesterheld

Change affects whole product family? No

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

See attached List of Products Affected 551 Series,553 Series,558 Series,562 Series,568 Series,569 series

Description of Change:

LED Epoxy Body length will be changing from .122" Dia.x .185" to .118" Dia. x .175". Intensity and Wavelength will change slightly - refer to attached comparison sheets for specifications. THIS APPLIES TO 3mm RED Diffused, GREEN Diffused AND YELLOW Diffused.

Reason for Change:

Change due to low usage.

Properties of Old vs. Changed Product:

See attached Comparison sheets for old specifications versed new specifications. The new spec products will have a marking symbol on each of the innermost bag packaging.

Disposition of Old Product:

Use until depleted.

Expected Implementation Date: 1-Sep-16

Last Time Order Date: 1-Jul-16

Customer Feedback Expected by: March 1,2016

Additional Comments: (Include Potential Risks if Appropriate)

None

Supporting Qualification Data:

Available upon request.

Approved By:

(Minimum of three approvals are required.)

Vice President of Operations: Matt Boudiette

Vice President of Sales OED/Signals: _____

Director of Customer Service: Kathy Smith

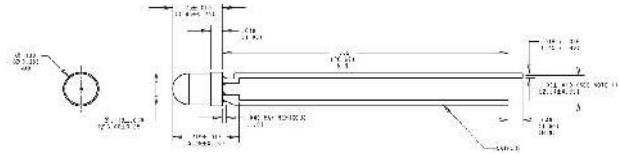
Vice President of Marketing: _____

Director of Quality: Rich Liskoff

LIST OF AFFECTED PART NUMBERS:

RED LED	RED LED	RED LED	GREEN LED	GREEN LED	GREEN LED	GREEN LED	GREEN LED	YELLOW LED	YELLOW LED	YELLOW LED
521-9427F replaced by 521-9216F			521-9408F replaced by 521-9210F					521-9428F replaced by 521-9211F		
	553 SERIES	558 SERIES	551 SERIES	553 SERIES	553 SERIES	558 SERIES		553 SERIES	558 SERIES	
551 SERIES	5530006810F	5580101001F	551 SERIES	5530001807F	5530123006F	5580201001F	551 SERIES	5530006810F	5580301001F	
5510001899F	5530012807F	5580101003F	5510001900F	5530006810F	5530123010F	5580201003F	5510001901F	5530012807F	5580301003F	
5510003805F	5530101010F	5580101007F	5510003805F	5530012807F	5530123300F	5580201007F	5510003805F	5530103300F	5580301007F	
5510003812F	5530101802F	5580101023F	5510003812F	5530102002F	5530123310F	5580201027F	5510003812F	5530103802F	5580301023F	
5510003816F	5530101805F	5580101027F	5510003816F	5530102004F	5530123802F	5580201808F	5510003816F	5530103804F	5580301027F	
5510003819F	5530101F	5580101806F	5510003819F	5530102300F	5530123804F	5580201810F	5510003819F	5530103F	5580301805F	
5510003831F	5530110010F	5580101813F	5510003820F	5530102802F	5530123806F	5580201811F	5510003820F	5530113300F	5580301808F	
5510004830F	5530110802F	5580101814F	5510004830F	5530102807F	5530123808F	5580201812F	5510004830F	5530113802F	5580301809F	
5510004831F	5530110F	5580101815F	5510004831F	5530102F	5530123809F	5580201814F	5510004832F	5530113F	5580301809F	
5510004832F	5530111003F	5580101817F	5510004833F	5530103804F	5530123F	5580201816F	5510004833F	5530123004F	5580301809F	
5510004833F	5530111004F	5580101819F	5510004834F	5530112002F	5530127300F	5580201817F	5510004835F	5530123006F	5580301809F	
5510004834F	5530111005F	5580101819F	5510004835F	5530112004F	5530127F	5580201818F	5510004837F	5530123010F	5580301809F	
5510004838F	5530111006F	5620006803F	5510004837F	5530112006F	5530128801F	5620006803F	5510004838F	5530123300F	5580301809F	
5510004839F	5530111010F	5680004816F	5510004838F	5530112010F	5530128F	5620006803F	5510004839F	5530123310F	5580301809F	
5510207811F	5530111300F	5680004816F	5510207811F	5510203F	5530112202F	5530132006F	5530123802F	5510303F	5580301809F	
5510403F	5530111306F	5680004817F	5510204804F	5510204F	5530112204F	5530132010F	5680004815F	5510304F	5580301809F	
5510404803F	5530111310F	5680004821F	5510204804F	5510204F	5530112206F	5530132300F	5680004816F	5510306003F	5580301809F	
5510404F	5530111804F	5680004822F	5510206003F	5510206003F	5530112212F	5530132306F	5680004817F	5510307003F	5580301809F	
5510405822F	5530111807F	5680004824F	5510207003F	5510207003F	5530112216F	5530132803F	5680004818F	5510307004F	5580301809F	
5510406003F	5530111F	5690111802F	5510207004F	5510207004F	5530112300F	5530132809F	5680004819F	5510307010F	5580301809F	
5510407003F	5530112002F	5690111802F	5510207010F	5510207010F	5530112306F	5530132811F	5680004823F	5510307100F	5580301809F	
5510407004F	5530112004F	5690121802F	5510207014F	5510207014F	5530112802F	5530132F	5680004825F	5510307801F	5580301809F	
5510407010F	5530112006F	5690132805F	5510207100F	5510207100F	5530112807F	5530172300F	5690112802F	5510307802F	5580301809F	
5510407100F	5530112010F		5510207802F	5510207802F	5530112810F	5530172F	5690112802F	5510307803F	5580301809F	
5510407803F	5530112202F		5510207804F	5510207804F	5530112F	5530182F	5690121802F	5510307809F	5580301809F	
5510407809F	5530112204F		5510207809F	5510207809F	5530120803F	5530700845F	5690132804F	5510307812F	5580301809F	
5510407811F	5530112206F		5510207811F	5510207811F	5530120F	5530712821F	5690132805F	5510307F	5580301809F	
5510407813F	5530112212F		5510207815F	5510207815F	5530121300F	5530721822F	5690132806F	5510309010F	5580301809F	
5510407818F	5530112216F		5510207818F	5510207818F	5530121803F			5510309807F	5580301809F	
5510407F	5530112300F		5510207F	5510207F	5530121F			5510309F	5580301809F	
5510409010F	5530112306F		5510209010F	5510209010F	5530122002F			5510311F	5580301809F	
5510409808F	5530112802F		5510209806F	5510209806F	5530122003F			5510312802F	5580301809F	
5510409F	5530112807F		5510209F	5510209F	5530122004F			5510312F	5580301809F	
5510411F	5530112810F		5510211F	5510211F	5530122005F				5580301809F	
5510412803F	5530112F		5510212801F	5510212801F	5530122006F				5580301809F	
5510412F	5530113300F		5510212F	5510212F	5530122010F				5580301809F	
	5530113802F		5510407809F	5510407809F	5530122014F				5580301809F	
	5530113F				5530122103F				5580301809F	
	5530117300F				5530122300F				5580301809F	
	5530118F				5530122303F				5580301809F	
	5530121300F				5530122306F				5580301809F	
	5530121803F				5530122804F				5580301809F	
	5530121F				5530122809F				5580301809F	
	5530131010F				5530122810F				5580301809F	
	5530131300F				5530122811F				5580301809F	
	5530131310F				5530122812F				5580301809F	
	5530131802F				5530122815F				5580301809F	
	5530131F				5530122817F				5580301809F	
	5530171F				5530122818F				5580301809F	
	5530181F				5530122F				5580301809F	
	5530711823F				5530123004F				5580301809F	

NOTE: LIGHT BLUE PART NUMBERS INDICATE STANDARD PRODUCTS.



LED COMPARISON TABLE:
For RED, GREEN and YELLOW 3mm DIFF LEDs
and NEW REPLACEMENT LED PARTS

		521-9427F RED 3MM DIFFUSED LED OBSOLETE PART SPECS			
		OPERATING CHARACTERISTICS @ 25° AMBIENT			
	If	MIN	TYP	MAX	
LUMINOUS INTENSITY (mcd) RED	10	5.6	16		
FORWARD VOLTAGE (V) RED	10		2	3	
PEAK WAVELENGTH (nm) RED	10		650		
DOMINANT WAVELENGTH (nm) RED		625	630	635	
VIEWING ANGLE 2-1/2 (deg)			45		
REVERSE VOLTAGE			3V		
		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
POWER DISSIPATION (mW)			60		
PEAK PULSE FORWARD CURRENT(mA)			60		
CONTINUOUS FORWARD CURRENT (mA)			20		
DERATING LINERALLY FROM (mA/C°)			(40°) 0.33		
REVERSE VOLTAGE (IR=100 µA)			3		
OPERATING TEMP. RANGE (C°)			-25 TO + 85		
STORAGE TEMP. RANGE (C°)			-30 TO +100		
LEAD SOLDERING TEMP. (C°) 1.6mm from Body			260C FOR 5 SECONDS		
		PHYSICAL DIMENSIONS			
THRU HOLE LED 3MM		.122" (3.1mm) Dia x .185"(4.70mm) EPOXY BODY			
LED EMITTING COLOR		RED			
LED EPOXY COLOR		DIFFUSED RED			
LED LEADS		Pb FREE RoHS			
LED DIE TECHNOLOGY		GaAsP on GaP			

		521-9216F RED 3MM DIFFUSED REPLACEMENT LED PART SPECS			
		OPERATING CHARACTERISTICS @ 25° AMBIENT			
	If	MIN	TYP	MAX	
LUMINOUS INTENSITY (mcd) RED	10	2.5	8.7	18	
FORWARD VOLTAGE (V) RED	10		2	2.6	
PEAK WAVELENGTH (nm) RED		615	635		
DOMINANT WAVELENGTH (nm) RED		625	60	632	
VIEWING ANGLE 2-1/2 (deg)			60		
REVERSE VOLTAGE			5V		
		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
POWER DISSIPATION (mW)			100		
PEAK PULSE FORWARD CURRENT(mA)			90		
CONTINUOUS FORWARD CURRENT (mA)			30		
DERATING LINERALLY FROM (mA/C°)			(50°) 0.4		
REVERSE VOLTAGE (IR=100 µA)			5		
OPERATING TEMP. RANGE (C°)			-55 to +100		
STORAGE TEMP. RANGE (C°)			-55 to + 100		
LEAD SOLDERING TEMP. (C°) 1.6mm from Body			260C FOR 5 SECONDS		
		PHYSICAL DIMENSIONS			
THRU HOLE LED 3MM		.118" (3.0mm) Dia x .175"(4.45mm) LG EPOXY BODY			
LED EMITTING COLOR		RED			
LED EPOXY COLOR		DIFFUSED RED			
LED LEADS		Pb FREE RoHS			
LED DIE TECHNOLOGY		AlInGaP RED			

LED COMPARISON TABLE:
For GREEN 3mm DIFF LEDs
and NEW REPLACEMENT LED PARTS

		521-9408F GREEN 3MM DIFFUSED LED CURRENT PART SPECS			
		OPERATING CHARACTERISTICS @ 25° AMBIENT			
	If	MIN	TYP	MAX	
LUMINOUS INTENSITY (mcd) GREEN	10	5.6	16	28	
FORWARD VOLTAGE (V) GREEN	10		2.1	3	
PEAK WAVELENGTH (nm) GREEN			563		
DOMINANT WAVELENGTH (nm) GREEN		567	572	577	
VIEWING ANGLE 2-1/2 (deg)			45		
REVERSE VOLTAGE			3V		
		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
POWER DISSIPATION (mW)			75		
PEAK PULSE FORWARD CURRENT(mA)			60		
CONTINUOUS FORWARD CURRENT (mA)			25		
DERATING LINERALLY FROM (mA/C°)			(40°) 0.39		
REVERSE VOLTAGE (IR=100 µA)			3		
OPERATING TEMP. RANGE (C°)			-25 TO + 85		
STORAGE TEMP. RANGE (C°)			-30 TO +100		
LEAD Reflow SOLDERING TEMP. (C°)			260C FOR 5 SECONDS		
		PHYSICAL DIMENSIONS			
THRU HOLE LED 3MM		.122" (3.1mm) Dia x .185"(4.70mm) EPOXY BODY			
LED EMITTING COLOR		GREEN			
LED EPOXY COLOR		DIFFUSED GREEN			
LED LEADS		Pb FREE RoHS			
LED DIE TECHNOLOGY		GaP			

		521-9210F GREEN 3MM DIFFUSED REPLACEMENT LED PART SPECS			
		OPERATING CHARACTERISTICS @ 25° AMBIENT			
	If	MIN	TYP	MAX	
LUMINOUS INTENSITY (mcd) GREEN	10	5.6	12.6	29	
FORWARD VOLTAGE (V) GREEN	10	1.5	2.1	2.6	
PEAK WAVELENGTH (nm) GREEN			565		
DOMINANT WAVELENGTH (nm) GREEN		564	568	573	
VIEWING ANGLE 2-1/2 (deg)			60		
REVERSE VOLTAGE			5V		
		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
POWER DISSIPATION (mW)			120		
PEAK PULSE FORWARD CURRENT(mA)			90		
CONTINUOUS FORWARD CURRENT (mA)			30		
DERATING LINERALLY FROM (mA/C°)			(50°) 0.4		
REVERSE VOLTAGE (IR=100 µA)			5		
OPERATING TEMP. RANGE (C°)			-55 to +100		
STORAGE TEMP. RANGE (C°)			-55 to + 100		
LEAD SOLDERING TEMP. (C°) 1.6mm from Body			260C FOR 5 SECONDS		
		PHYSICAL DIMENSIONS			
THRU HOLE LED 3MM		.118" (3.0mm) Dia x .175"(4.45mm) LG EPOXY BODY			
LED EMITTING COLOR		GREEN			
LED EPOXY COLOR		DIFFUSED GREEN			
LED LEADS		Pb FREE RoHS			
LED DIE TECHNOLOGY		AlInGaP GREEN			

LED COMPARISON TABLE:
For YELLOW 3mm DIFF LEDs
and NEW REPLACEMENT LED PARTS

		521-9428F YELLOW 3MM DIFFUSED LED CURRENT PART SPECS			
		OPERATING CHARACTERISTICS @ 25° AMBIENT			
	If	MIN	TYP	MAX	
LUMINOUS INTENSITY (mcd) YELLOW	10	5.6	16	28	
FORWARD VOLTAGE (V) YELLOW	10		2.1	3	
PEAK WAVELENGTH (nm) YELLOW			585		
DOMINANT WAVELENGTH (nm) YELLOW		582	587	592	
VIEWING ANGLE 2-1/2 (deg)			45		
REVERSE VOLTAGE			3V		
		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
POWER DISSIPATION (mW)			60		
PEAK PULSE FORWARD CURRENT(mA)			60		
CONTINUOUS FORWARD CURRENT (mA)			20		
DERATING LINERALLY FROM (mA/C°)			(40°) 0.33		
REVERSE VOLTAGE (IR=100 µA)			3		
OPERATING TEMP. RANGE (C°)			-25 TO + 85		
STORAGE TEMP. RANGE (C°)			-30 TO +100		
LEAD Reflow SOLDERING TEMP. (C°)			260C FOR 5 SECONDS		
		PHYSICAL DIMENSIONS			
THRU HOLE LED 3MM		.122" (3.1mm) Dia x .185"(4.70mm) EPOXY BODY			
LED EMITTING COLOR		YELLOW			
LED EPOXY COLOR		DIFFUSED YELLOW			
LED LEADS		Pb FREE RoHS			
LED DIE TECHNOLOGY		GaAsP on GaP Yellow			

		521-9211F YELLOW 3MM DIFFUSED REPLACEMENT LED PART SPECS			
		OPERATING CHARACTERISTICS @ 25° AMBIENT			
	If	MIN	TYP	MAX	
LUMINOUS INTENSITY (mcd) YELLOW	10	3.7	8.7	30	
FORWARD VOLTAGE (V) YELLOW	10		2.1	2.6	
PEAK WAVELENGTH (nm) YELLOW			585		
DOMINANT WAVELENGTH (nm) YELLOW		584	590	595	
VIEWING ANGLE 2-1/2 (deg)			60		
REVERSE VOLTAGE			5V		
		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
POWER DISSIPATION (mW)			60		
PEAK PULSE FORWARD CURRENT(mA)			60		
CONTINUOUS FORWARD CURRENT (mA)			20		
DERATING LINERALLY FROM (mA/C°)			(50°) 0.25		
REVERSE VOLTAGE (IR=100 µA)			5		
OPERATING TEMP. RANGE (C°)			-55 to + 100		
STORAGE TEMP. RANGE (C°)			-55 to + 100		
LEAD SOLDERING TEMP. (C°) 1.6mm from Body			260C FOR 5 SECONDS		
		PHYSICAL DIMENSIONS			
THRU HOLE LED 3MM		.118" (3.0mm) Dia x .175"(4.45mm) LG EPOXY BODY			
LED EMITTING COLOR		YELLOW			
LED EPOXY COLOR		DIFFUSED YELLOW			
LED LEADS		Pb FREE RoHS			
LED DIE TECHNOLOGY		AlInGaP Yellow			