



Customer Product/Process Change Notification

PCN # 102409
 Issued Date: 03/02/2023
 Issued By: Cheryll Santiago
 Author: Cheryll Santiago

Change affects whole product family?	No
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Part #'s affected (See attached if entire product family is affected)

597-3111-407F / 597-3111-402F, 597-3311-407NF / 597-3311-402NF, 597-3401-407NF / 597-3401-402NF, 597-3325-407F, 597-3325-402F, 597-3612-407F / 597-3612-402F

Description of Change:

New LED Die material is higher luminous intensity

Reason for Change:

Old LED Die/Chip is EOL

Properties of Old vs. Changed Product:

See Comparison sheets

Disposition of Old Product:

Deplete existing Stock on hand.

Expected Implementation Date: For orders placed after 6/1/2023 Last Time Buy Date: 6/01/2023
Customer Feedback Expected by: Not Applicable

Additional Comments: (Include Potential Risks if Appropriate)

Package size is thinner 1.4mm vs old package size 1.5mm, Viewing angle on new part is 40 degree vs 70 degree

Supporting Qualification Data:

When Available upon request only.

Approved By:

(Minimum of three approvals are required.)

Vice President of Operations: _____
 Vice President of Sales OED/Signals: _____
 Director of Customer Service: _____
 Vice President of Marketing: _____
 Director of Quality: _____

NOTE: Expected Implementation date and Last Time Buy Date are estimated based on existing materials and consumption rates. Subject to change.

LED COMPARISON TABLE

For 1206 SM LED with Lens EOL part numbers: 597-3111-402F/-407F, 597-3311-402NF/-407NF, 597-3401-402F/-407F, 597-3325-402F/-407F, 597-3612-402F/-407F and Replacement part numbers: 599-0410-122F/-127F, 599-0460-122F/-127F, 599-0440-122F/-127F, 599-0480-122F / -127F, 599-0490-122F/ -127F

#1	PARAMETER	597-3111-402F/-407F Red OLD Die				599-0410-122F/-127F Red NEW Die			
PARAMETERS		OPERATING CHARACTERISTICS @ 25° AMBIENT				OPERATING CHARACTERISTICS @ 25° AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	20mA	12	33.6	55.2	20mA	50		160
	FORWARD VOLTAGE (V)	20mA		1.7	2	20mA	1.8		2.4
	DOMINANT WAVELENGTH (nm)		640	647	655		630	640	650
	VIEWING ANGLE 2θ1/2 (deg)	70				40			
	REVERSE CURRENT (µA)	100 (Vr=4V)				10µA (Vr=5V)			
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
	POWER DISSIPATION (mW)	60				111			
	PEAK PULSE FORWARD CURRENT(mA)	70				125			
	CONTINUOUS FORWARD CURRENT (mA)	30				30			
	REVERSE VOLTAGE	4V (Ir=100µA)				5V			
	OPERATING TEMP. RANGE (C°)	-30C to +85C				-40C to +80C			
	STORAGE TEMP. RANGE (C°)	-40C to +100C				-40C to +85C			
LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max				260C 10 sec max				
PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm				3.0 x 1.5 x 1.4mm			
	LED EMITTING COLOR	Red				Red			
	LED EPOXY COLOR	Water Clear				Water Clear			
	LED LEADS	SMT, 2 pins				SMT, 2 pins			
	LED DIE TECHNOLOGY	GaAlAs				AlGaInP			
	MOISTURE SENSITIVITY LEVEL					3			
	Packaging	7 inch reel / 2500 pcs per reel				7 inch reel / 3000 pcs per reel			
#2	PARAMETER	597-3311-402NF/-407NF Green OLD Die				599-0460-122F/-127F Green NEW Die			
PARAMETERS		OPERATING CHARACTERISTICS @ 25° AMBIENT				OPERATING CHARACTERISTICS @ 25° AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	20mA	6	12	18	20mA	63		200
	FORWARD VOLTAGE (V)	20mA		2.1	2.5	20mA	1.8		2.4
	DOMINANT WAVELENGTH (nm)		560	567	575		565		576
	VIEWING ANGLE 2θ1/2 (deg)	70				40			
	REVERSE CURRENT (µA)	100 (Vr=4V)				10µA (Vr=5V)			
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
	POWER DISSIPATION (mW)	75				111			
	PEAK PULSE FORWARD CURRENT(mA)	70				125			
	CONTINUOUS FORWARD CURRENT (mA)	30				30			
	REVERSE VOLTAGE	4V (Ir=100µA)				5V			
	OPERATING TEMP. RANGE (C°)	-30C to +85C				-40C to +80C			
	STORAGE TEMP. RANGE (C°)	-40C to +100C				-40C to +85C			
LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max				260C 10 sec max				
PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm				3.0 x 1.5 x 1.4mm			
	LED EMITTING COLOR	Green				Green			
	LED EPOXY COLOR	Water Clear				Water Clear			
	LED LEADS	SMT, 2 pins				SMT, 2 pins			
	LED DIE TECHNOLOGY	GaP				AlGaInP			
	MOISTURE SENSITIVITY LEVEL					3			
	Packaging	7 inch reel / 2500 pcs per reel				7 inch reel / 3000 pcs per reel			
#3	PARAMETER	597-3401-402F/-407F Yellow OLD Die				599-0440-122F/-127F Yellow NEW Die			
PARAMETERS		OPERATING CHARACTERISTICS @ 25° AMBIENT				OPERATING CHARACTERISTICS @ 25° AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	20mA	3	6	9	20mA	200		630
	FORWARD VOLTAGE (V)	20mA		2.2	2.5	20mA	1.8		2.4
	DOMINANT WAVELENGTH (nm)		583	590	597		585		595
	VIEWING ANGLE 2θ1/2 (deg)	70				40			
	REVERSE CURRENT (µA)	100 (Vr=4V)				10µA (Vr=5V)			
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
	POWER DISSIPATION (mW)	75				75			
	PEAK PULSE FORWARD CURRENT(mA)	70				125			
	CONTINUOUS FORWARD CURRENT (mA)	30				30			
	REVERSE VOLTAGE	4V (Ir=100µA)				5V			
	OPERATING TEMP. RANGE (C°)	-30C to +85C				-40C to +80C			
	STORAGE TEMP. RANGE (C°)	-40C to +100C				-40C to +85C			
LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max				260C 10 sec max				
PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm				3.0 x 1.5 x 1.4mm			
	LED EMITTING COLOR	Yellow				Yellow			

ART SPEC / DIMENSION	LED EPOXY COLOR	Water Clear	Water Clear
	LED LEADS	SMT, 2 pins	SMT, 2 pins
	LED DIE TECHNOLOGY	GaAsP	AlGaInP
	MOISTURE SENSITIVITY LEVEL		3
	Packaging	7 inch reel / 2500 pcs per reel	7 inch reel / 3000 pcs per reel

#4	PARAMETER	597-3325-402F/-407F Green OLD Die				599-0480-122F / -127F Green NEW Die			
PARAMETERS		OPERATING CHARACTERISTICS @ 25° AMBIENT				OPERATING CHARACTERISTICS @ 25° AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	20mA	150		680	20mA	2000	3200	6800
	FORWARD VOLTAGE (V)	20mA		3.3	3.8	20mA	2.8		3.7
	DOMINANT WAVELENGTH (nm)			525			520		530
	VIEWING ANGLE 2θ1/2 (deg)		50				40		
REVERSE CURRENT (uA)		100 (Vr=5V)				10uA (Vr=5V)			

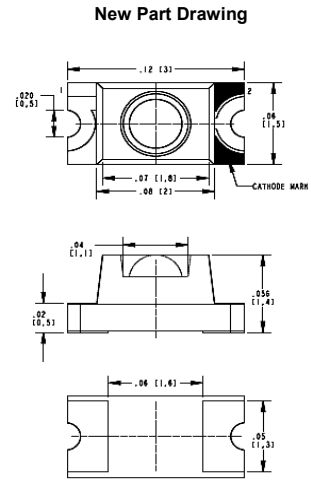
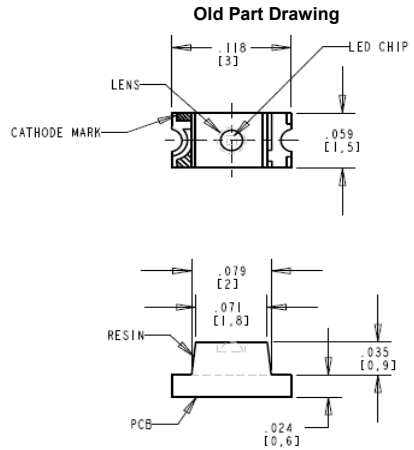
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
	POWER DISSIPATION (mW)	84				111			
	PEAK PULSE FORWARD CURRENT(mA)	48				125			
	CONTINUOUS FORWARD CURRENT (mA)	20				30			
	REVERSE VOLTAGE	5V				5V			
	OPERATING TEMP. RANGE (C°)	-40C to +100C				-40C to +80C			
	STORAGE TEMP. RANGE (C°)	-40C to +110C				-40C to +85C			
LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max				260C 10 sec max				

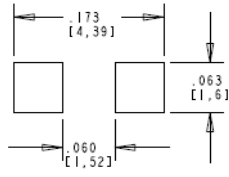
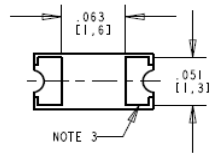
PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm				3.0 x 1.5 x 1.4mm			
	LED EMITTING COLOR	Green				True Green			
	LED EPOXY COLOR	Water Clear				Water Clear			
	LED LEADS	SMT, 2 pins				SMT, 2 pins			
	LED DIE TECHNOLOGY	InGaN				InGaN/GaN			
	MOISTURE SENSITIVITY LEVEL					3			
Packaging	7 inch reel / 2500 pcs per reel				7 inch reel / 3000 pcs per reel				

#5	PARAMETER	597-3612-402F/-407F Blue OLD Die				599-0490-122F / -127F Blue NEW Die			
PARAMETERS		OPERATING CHARACTERISTICS @ 25° AMBIENT				OPERATING CHARACTERISTICS @ 25° AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	20mA	47		220	20mA	320	500	1000
	FORWARD VOLTAGE (V)	20mA		3.3	3.8	20mA	2.8		3.7
	DOMINANT WAVELENGTH (nm)			470			460		470
	VIEWING ANGLE 2θ1/2 (deg)		50				40		
REVERSE CURRENT (uA)		100 (Vr=5V)				10uA (Vr=5V)			

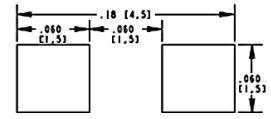
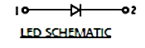
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
	POWER DISSIPATION (mW)	80				111			
	PEAK PULSE FORWARD CURRENT(mA)	48				125			
	CONTINUOUS FORWARD CURRENT (mA)	20				30			
	REVERSE VOLTAGE	5V				5V			
	OPERATING TEMP. RANGE (C°)	-40C to +100C				-40C to +80C			
	STORAGE TEMP. RANGE (C°)	-40C to +110C				-40C to +85C			
LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max				260C 10 sec max				

PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm				3.0 x 1.5 x 1.4mm			
	LED EMITTING COLOR	Blue				Blue			
	LED EPOXY COLOR	Water Clear				Water Clear			
	LED LEADS	SMT, 2 pins				SMT, 2 pins			
	LED DIE TECHNOLOGY	InGaN				InGaN/GaN			
	MOISTURE SENSITIVITY LEVEL					3			
Packaging	7 inch reel / 2500 pcs per reel				7 inch reel / 3000 pcs per reel				





RECOMMENDED SOLDER PAD LAYOUT



RECOMMENDED PAD LAYOUT

**AFFECTED PART NUMBERS USING THIS EOL 1206 LED WITH LENS 1.5MM THK PROFILE
REPLACEMENT 1206 LED WITH LENS 1.4MM THK PROFILE AND HIGHER BRIGHTNESS**

597 SMD LED MICROLED SINGLE COLOR

OBSOLETE P/N	DESCRIPTION	USE NEW P/N	DESCRIPTION
597-3111-407F / 597-3111-402F	SMD LED 1206 RED 7" REEL/SMD LED 1206 R Sample Strip	599-0410-127F / 599-0410-122F	SM 1206 RED640nm wLENS 7" RL / SM1206 RED640nm wLENS SMPSTR
597-3311-407NF / 597-3311-402NF	SMD LED 1206 GRN 7" REEL/SMD LED 1206 G Sample Strip	599-0460-127F / 599-0460-122F	SM 1206 GRN570nm wLENS 7" RL / SM 1206 GRN570 wLENS SMPSTR
597-3401-407NF / 597-3401-402NF	SMD LED 1206 YEL 7" REEL/SMD LED 1206 Y Sample Strip	599-0440-127F / 599-0440-122F	SM 1206 YEL590nm wLENS 7" RL / SM 1206 YEL590 wLENS SMPSTR
597-3612-407F / 597-3612-402F	SMD LED 1206 B WLENS 7" REEL/SMD 1206 B Sample Strip	599-0490-127F / 599-0490-122F	SM 1206 BLUE470nm wLENS 7" RL / SM 1206 BLUE470 wLENS SMPSTR
597-3325-407F / 597-3325-402F	SMD 1206 INGAN G WL 7"REEL/SMD 1206 INGAN G WL SMPSTR	599-0480-127F / 599-0480-122F	SM 1206 TGRN525nm wLENS 7" RL / SM 1206 TGRN525nm wLENS SMPSTR