



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
--------------------------------------	----

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 and Replacement part numbers: 599-0410-122F/-127F, 599-0460-122F/-127F, 599-0440-122F/-127F

#1	PARAMETER	597-3111-402F/-407F Re	
PARAMETERS		OPERATING CHARACTERISTICS	
		If	MIN
	LUMINOUS INTENSITY (mcd)	20mA	12
	FORWARD VOLTAGE (V)	20mA	
	DOMINANT WAVELENGTH (nm)		640
	VIEWING ANGLE 2 θ 1/2 (deg)		70
	REVERSE CURRENT (μ A)		100 (Vr=4V)
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS	
	POWER DISSIPATION (mW)		60
	PEAK PULSE FORWARD CURRENT(mA)		70
	CONTINUOUS FORWARD CURRENT (mA)		30
	REVERSE VOLTAGE		4V (Ir=100 μ A)
	OPERATING TEMP. RANGE (C°)		-30C to +85C
	STORAGE TEMP. RANGE (C°)		-40C to +100C
	LEAD Reflow SOLDERING TEMP. (C°)		260C for 5 sec max
PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm	
	LED EMITTING COLOR	Red	
	LED EPOXY COLOR	Water Clear	
	LED LEADS	SMT, 2 pins	
	LED DIE TECHNOLOGY	GaAlAs	
	MOISTURE SENSITIVITY LEVEL		
	Packaging	7 inch reel / 2500 pcs per reel	
#2	PARAMETER	597-3311-402NF/-407NF G	
PARAMETERS		OPERATING CHARACTERISTICS	
		If	MIN
	LUMINOUS INTENSITY (mcd)	20mA	6
	FORWARD VOLTAGE (V)	20mA	
	DOMINANT WAVELENGTH (nm)		560
	VIEWING ANGLE 2 θ 1/2 (deg)		70
	REVERSE CURRENT (μ A)		100 (Vr=4V)
RATING /		ABSOLUTE MAXIMUM RATINGS	
	POWER DISSIPATION (mW)		75
	PEAK PULSE FORWARD CURRENT(mA)		70

CHARACTERISTICS	CONTINUOUS FORWARD CURRENT (mA)	30
	REVERSE VOLTAGE	4V (Ir=100uA)
	OPERATING TEMP. RANGE (C°)	-30C to +85C
	STORAGE TEMP. RANGE (C°)	-40C to +100C
	LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max

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

#3	PARAMETER	597-3401-402F/-407F Yellow	
----	-----------	----------------------------	--

PARAMETERS	OPERATING CHARACTERISTICS		
		If	MIN
	LUMINOUS INTENSITY (mcd)	20mA	3
	FORWARD VOLTAGE (V)	20mA	
	DOMINANT WAVELENGTH (nm)		583
	VIEWING ANGLE 2θ1/2 (deg)	70	
	REVERSE CURRENT (uA)	100 (Vr=4V)	

RATING / CHARACTERISTICS	ABSOLUTE MAXIMUM RATINGS	
	POWER DISSIPATION (mW)	75
	PEAK PULSE FORWARD CURRENT(mA)	70
	CONTINUOUS FORWARD CURRENT (mA)	30
	REVERSE VOLTAGE	4V (Ir=100uA)
	OPERATING TEMP. RANGE (C°)	-30C to +85C
	STORAGE TEMP. RANGE (C°)	-40C to +100C
	LEAD Reflow SOLDERING TEMP. (C°)	260C for 5 sec max

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

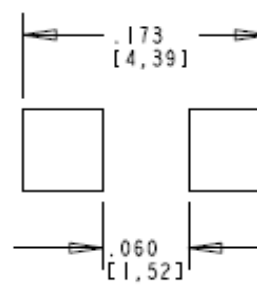
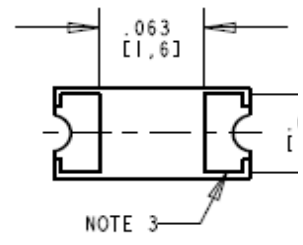
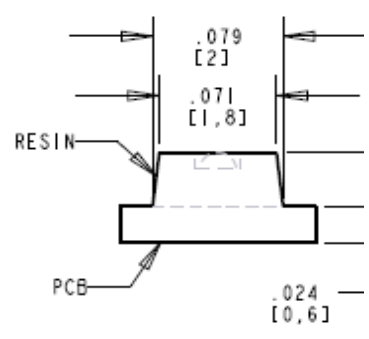
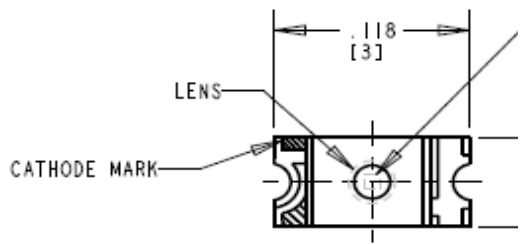
#4	PARAMETER	597-3325-402F/-407F Green	
----	-----------	---------------------------	--

P1	OPERATING CHARACTERISTICS		
		If	MIN

PARAMETERS	LUMINOUS INTENSITY (mcd)	20mA	150
	FORWARD VOLTAGE (V)	20mA	
	DOMINANT WAVELENGTH (nm)		
	VIEWING ANGLE 2θ1/2 (deg)		50
	REVERSE CURRENT (uA)		100 (Vr=5V)
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS	
	POWER DISSIPATION (mW)		84
	PEAK PULSE FORWARD CURRENT(mA)		48
	CONTINUOUS FORWARD CURRENT (mA)		20
	REVERSE VOLTAGE		5V
	OPERATING TEMP. RANGE (C°)		-40C to +100C
	STORAGE TEMP. RANGE (C°)		-40C to +110C
	LEAD Reflow SOLDERING TEMP. (C°)		260C for 5 sec max
PART SPEC / DIMENSION	Package Size	3.0 x 1.5 x 1.5mm	
	LED EMITTING COLOR	Green	
	LED EPOXY COLOR	Water Clear	
	LED LEADS	SMT, 2 pins	
	LED DIE TECHNOLOGY	InGaN	
	MOISTURE SENSITIVITY LEVEL		
	Packaging	7 inch reel / 2500 pcs per reel	
#5	PARAMETER	597-3612-402F/-407F Blue	
PARAMETERS		OPERATING CHARACTERISTICS	
		If	MIN
	LUMINOUS INTENSITY (mcd)	20mA	47
	FORWARD VOLTAGE (V)	20mA	
	DOMINANT WAVELENGTH (nm)		
	VIEWING ANGLE 2θ1/2 (deg)		50
	REVERSE CURRENT (uA)		100 (Vr=5V)
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS	
	POWER DISSIPATION (mW)		80
	PEAK PULSE FORWARD CURRENT(mA)		48
	CONTINUOUS FORWARD CURRENT (mA)		20
	REVERSE VOLTAGE		5V
	OPERATING TEMP. RANGE (C°)		-40C to +100C
	STORAGE TEMP. RANGE (C°)		-40C to +110C
	LEAD Reflow SOLDERING TEMP. (C°)		260C for 5 sec max
PART DIMENSION	Package Size	3.0 x 1.5 x 1.5mm	
	LED EMITTING COLOR	Blue	
	LED EPOXY COLOR	Water Clear	

- SPEC / ENSION	LED LEADS	SMT, 2 pins
	LED DIE TECHNOLOGY	InGaN
	MOISTURE SENSITIVITY LEVEL	
	Packaging	7 inch reel / 2500 pcs p

Old Part Drawin



RECOMMENDED SOLDER PAD

NF, 597-3401-402F/-407F, 597-3325-402F/-407F, 597-3612-402F/-407F
 /-127F, 599-0480-122F / -127F, 599-0490-122F/ -127F

d OLD Die		599-0410-122F/-127F Red NEW Die			
S @ 25° AMBIENT		OPERATING CHARACTERISTICS @ 25° AMBIENT			
TYP	MAX	If	MIN	TYP	MAX
33.6	55.2	20mA	50		160
1.7	2	20mA	1.8		2.4
647	655		630	640	650
		40			
		10uA (Vr=5V)			

GS @ TA=25° C	ABSOLUTE MAXIMUM RATINGS @ TA=25° C
	111
	125
	30
	5V
	-40C to +80C
	-40C to +85C
ax	260C 10 sec max
n	3.0 x 1.5 x 1.4mm
	Red
	Water Clear
	SMT, 2 pins
	AlGaInP
	3
per reel	7 inch reel / 3000 pcs per reel

Green OLD Die		599-0460-122F/-127F Green NEW Die			
S @ 25° AMBIENT		OPERATING CHARACTERISTICS @ 25° AMBIENT			
TYP	MAX	If	MIN	TYP	MAX
12	18	20mA	63		200
2.1	2.5	20mA	1.8		2.4
567	575		565		576
		40			
		10uA (Vr=5V)			
GS @ TA=25° C	ABSOLUTE MAXIMUM RATINGS @ TA=25° C				
	111				
	125				

	30
	5V
	-40C to +80C
	-40C to +85C
ax	260C 10 sec max
n	3.0 x 1.5 x 1.4mm
	Green
	Water Clear
	SMT, 2 pins
	AlGaInP
	3
per reel	7 inch reel / 3000 pcs per reel

ow OLD Die	599-0440-122F/-127F Yellow NEW Die				
S @ 25° AMBIENT	OPERATING CHARACTERISTICS @ 25° AMBIENT				
TYP	MAX	If	MIN	TYP	MAX
6	9	20mA	200		630
2.2	2.5	20mA	1.8		2.4
590	597		585		595
			40		
			10uA (Vr=5V)		

GS @ TA=25° C	ABSOLUTE MAXIMUM RATINGS @ TA=25° C				
			75		
			125		
			30		
			5V		
			-40C to +80C		
			-40C to +85C		
ax			260C 10 sec max		

n	3.0 x 1.5 x 1.4mm				
	Yellow				
	Water Clear				
	SMT, 2 pins				
	AlGaInP				
	3				
per reel	7 inch reel / 3000 pcs per reel				

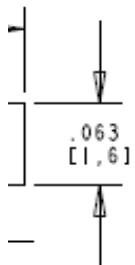
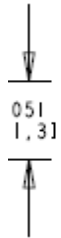
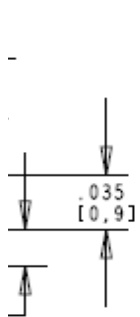
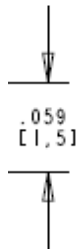
een OLD Die	599-0480-122F / -127F Green NEW Die				
S @ 25° AMBIENT	OPERATING CHARACTERISTICS @ 25° AMBIENT				
TYP	MAX	If	MIN	TYP	MAX

	680	20mA	2000	3200	6800
3.3	3.8	20mA	2.8		3.7
525			520		530
		40			
		10uA (Vr=5V)			
GS @ TA=25° C		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
		111			
		125			
		30			
		5V			
		-40C to +80C			
		-40C to +85C			
ax		260C 10 sec max			
n		3.0 x 1.5 x 1.4mm			
		True Green			
		Water Clear			
		SMT, 2 pins			
		InGaN/GaN			
		3			
per reel		7 inch reel / 3000 pcs per reel			
Old Die		599-0490-122F/ -127F Blue NEW Die			
S @ 25° AMBIENT		OPERATING CHARACTERISTICS @ 25° AMBIENT			
TYP	MAX	If	MIN	TYP	MAX
	220	20mA	320	500	1000
3.3	3.8	20mA	2.8		3.7
470			460		470
		40			
		10uA (Vr=5V)			
GS @ TA=25° C		ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
		111			
		125			
		30			
		5V			
		-40C to +80C			
		-40C to +85C			
ax		260C 10 sec max			
n		3.0 x 1.5 x 1.4mm			
		Blue			
		Water Clear			

	SMT, 2 pins
	InGaN/GaN
	3
per reel	7 inch reel / 3000 pcs per reel

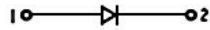
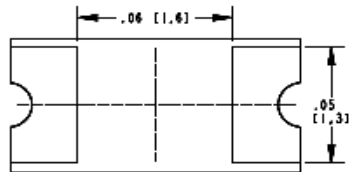
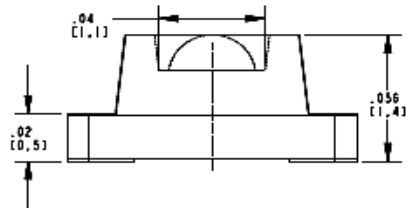
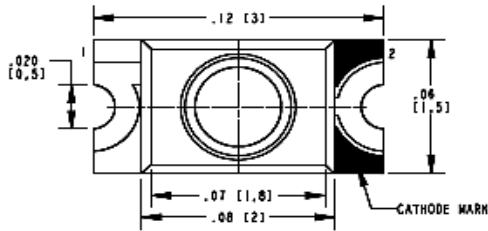
ng

LED CHIP

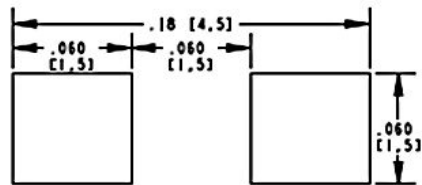


LAYOUT

New Part Drawing



LED SCHEMATIC



RECOMMENDED PAD LAYOUT

**AFFECTED PART NUMBERS USING THIS |
REPLACEMENT 1206 LED WITH LENS 1.4|**

597 SMD LED MICROLED SINGLE COLOR

OBSOLETE P/N
597-3111-407F / 597-3111-402F
597-3311-407NF / 597-3311-402NF
597-3401-407NF / 597-3401-402NF
597-3612-407F / 597-3612-402F
597-3325-407F / 597-3325-402F

EOL 1206 LED WITH LENS 1.5MM THK PROFILE

MM THK PROFILE AND HIGHER BRIGHTNESS

DESCRIPTION
SMD LED 1206 RED 7" REEL/SMD LED 1206 R Sample Strip
SMD LED 1206 GRN 7" REEL/SMD LED 1206 G Sample Strip
SMD LED 1206 YEL 7" REEL/SMD LED 1206 Y Sample Strip
SMD LED 1206 B WLENS 7" REEL/SMD 1206 B Sample Strip
SMD 1206 INGAN G WL 7"REEL/SMD 1206 INGAN G WL SMPSTR

USE NEW P/N

599-0410-127F / 599-0410-122F

599-0460-127F / 599-0460-122F

599-0440-127F / 599-0440-122F

599-0490-127F / 599-0490-122F

599-0480-127F / 599-0480-122F

DESCRIPTION
SM 1206 RED640nm wLENS 7" RL / SM1206 RED640nm wLENS SMPSTR
SM 1206 GRN570nm wLENS 7" RL / SM 1206 GRN570 wLENS SMPSTR
SM 1206 YEL590nm wLENS 7" RL / SM 1206 YEL590 wLENS SMPSTR
SM 1206 BLUE470nm wLENS 7" RL / SM 1206 BLUE470 wLENS SMPSTR
SM 1206 TGRN525nm wLENS 7" RL / SM 1206 TGRN525nm wLENS SMPSTR