



Customer Product/Process Change Notification

PCN # 110117
 Issued Date: 11-7-23
 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)

597C3608202F, 597C3608207F, 597C3908202F, 597C3908207F, 5973601202F, 5973601207F, 5973901202F, 5973901207F

Description of Change:

New LED Die material is higher luminous intensity

Reason for Change:

Old low brightness LED Die/Chip for Blue and White is EOL used in PLCC-2 and Mini PLCC-2 package

Properties of Old vs. Changed Product:

See Comparison sheets

Disposition of Old Product:

Deplete existing Stock on hand.

Expected Implementation Date: Immediately Last Time Buy Date: Not Applicable
 Customer Feedback Expected by: Not Applicable

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

OBSOLETE P/N	OBSOLETE P/N (without dash)	NEW P/N
597C-3608-202F	597C3608202F	598-8C90-102F
597C-3608-207F	597C3608207F	598-8C90-107F
597C-3908-202F	597C3908202F	598-2C00-107F
597C-3908-207F	597C3908207F	598-2C00-107F
597-3601-202F	5973601202F	598-8B90-102F
597-3601-207F	5973601207F	598-8B90-107F
597-3901-202F	5973901202F	597-3901-407F
597-3901-207F	5973901207F	597-3901-407F

AFFECTED PART NUMBERS LIST AND DESCRIPTION

OBSOLETE P/N	OBSOLETE P/N (without dash)	DESCRIPTION
597C-3608-202F	597C3608202F	SM MINI PLCC2 LC BLUE 470nm Sample Strip
597C-3608-207F	597C3608207F	SM MINI PLCC2 LC BLUE 470nm 7" Reel
597C-3908-202F	597C3908202F	SM MINI PLCC2 LC WHITE Sample Strip
597C-3908-207F	597C3908207F	SM MINI PLCC2 LC WHITE 7" Reel
597-3601-202F	5973601202F	SMD LED PLCC-2 Blue Sample Strip
597-3601-207F	5973601207F	SMD LED PLCC-2 Blue 7" Reel
597-3901-202F	5973901202F	SMD LED PLCC-2 White Sample Strip
597-3901-207F	5973901207F	SMD LED PLCC-2 White 7" Reel

USE NEW P/N	DESCRIPTION
598-8C90-102F	SM MINI PLCC-2 BLUE 470nm Sample Strip
598-8C90-107F	SM MINI PLCC-2 BLUE 470nm 7" Reel
598-2C00-107F	MINI PLCC2 WHITE 5mA
598-2C00-107F	MINI PLCC2 WHITE 5mA 7" Reel
598-8B90-102F	SM LED 3528 PLCC-2 BLUE 470nm Sample Strip
598-8B90-107F	SM LED 3528 PLCC-2 BLUE 470nm 7" Reel
597-3901-407F	SM PLCC-2 WHITE 10mA
597-3901-407F	SM PLCC-2 WHITE 10mA 7" Reel

LED COMPARISON TABLE

For EOL part numbers: 597C-3608-202F, 597C-3608-207F, 597C-3908-202F, 597C-3908-207F

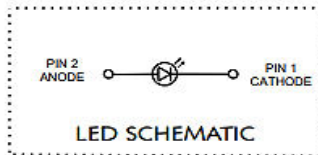
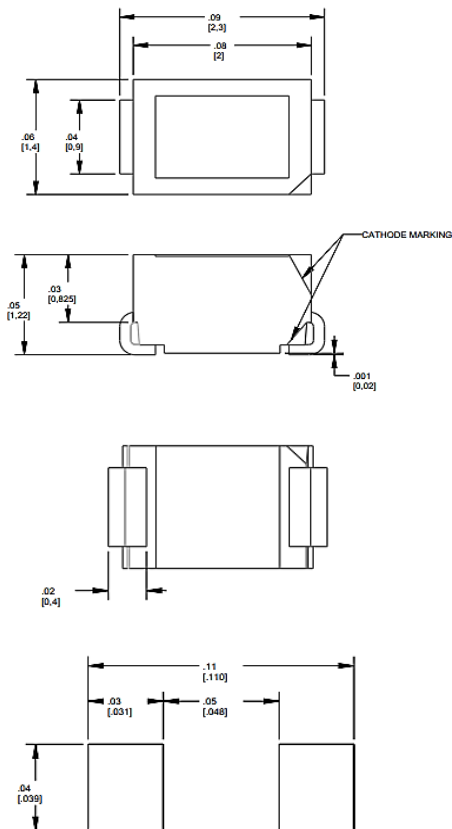
and Replacement part numbers: 598-8C90-102F, 598-8C90-107F, 598-2C00-107F

#1	PARAMETER	597C-3608-202F / 597C-3608-207F OLD DIE BLUE				598-8C90-102F / 598-8C90 NEW DIE BLUE		
PARAMETERS		OPERATING CHARACTERISTICS @ 25°C AMBIENT				OPERATING CHARACTERISTICS @ 25°C AMBIENT		
		If	MIN	TYP	MAX	If	MIN	TYP
	LUMINOUS INTENSITY (mcd)	2mA	9	15.7	22.4	20mA	350	440
	FORWARD VOLTAGE (V)	2mA	2.5	2.75	3.1	20mA	2.8V	
	DOMINANT WAVELENGTH (nm)	Chromaticity Coordinates	x=0.2 / y=0.3			Dominant Wavelength	467.5	
	VIEWING ANGLE 2θ1/2 (deg)	120				120		
	REVERSE CURRENT (uA)	10uA @ Vr=5V				10uA @ Vr=5V		
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C		
	POWER DISSIPATION (mW)					66mW		
	PEAK FORWARD CURRENT(mA)					80mA		
	FORWARD CURRENT (mA)	15mA				20mA		
	REVERSE VOLTAGE	5V				5V		
	OPERATING TEMP. RANGE (°C)	-40C to +100C				-40C to +85C		
	STORAGE TEMP. RANGE (°C)	-40C to +100C				-40C to +100C		
	Reflow SOLDERING TEMP. (°C)	245 °C within 20 sec				260 °C within 10 sec		
PART SPEC / DIMENSION	Package Size	Mini PLCC-2 (2.0 x 1.4 x 1.2mm)				Mini PLCC-2 (2.0 x 1.4 x 1.3mm)		
	LED EMITTING COLOR	Ice Blue				Blue		
	LED EPOXY COLOR	Water Clear				Water Clear		
	LED LEADS	SMT 2 pins				SMT 2 pins		
	LED DIE TECHNOLOGY	InGaN				InGaN		
	MOISTURE SENSITIVITY LEVEL	2				3		
	Packaging	3000 pcs / reel				3000 pcs / reel		
#2	PARAMETER	597C-3908-202F / 597C-3908-207F OLD DIE WHITE				598-2C00-107F NEW DIE V		
PARAMETERS		OPERATING CHARACTERISTICS @ 25°C AMBIENT				OPERATING CHARACTERISTICS @ 25°C AMBIENT		
		If	MIN	TYP	MAX	If	MIN	TYP
	LUMINOUS INTENSITY (mcd)	2mA	9	23	36	5mA	280	
	FORWARD VOLTAGE (V)	2mA	2.5	2.75	3.1	5mA	2.5V	
	DOMINANT WAVELENGTH (nm)	Chromaticity Coordinates	x=0.33 typ / y=0.33 typ			Chromaticity Coordinates	x = 0.284 - 0.30 y=0.277 - 0.29	
	VIEWING ANGLE 2θ1/2 (deg)	120				120		
	REVERSE CURRENT (uA)	10uA @ Vr=5V				10uA @ Vr=5V		

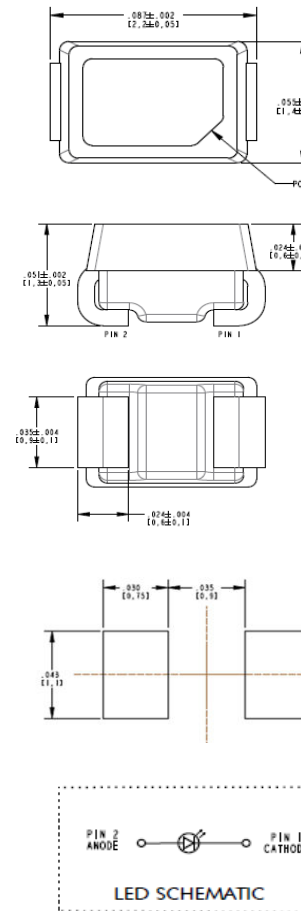
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C	ABSOLUTE MAXIMUM RATINGS @ TA=25° C
	POWER DISSIPATION (mW)		62mW
	PEAK FORWARD CURRENT(mA)		100mA
	FORWARD CURRENT (mA)	20mA	20mA
	REVERSE VOLTAGE	5V	5V
	OPERATING TEMP. RANGE (°C)	-40C to +100C	-40C to +85C
	STORAGE TEMP. RANGE (°C)	-40C to +100C	-40C to +100C
	Reflow SOLDERING TEMP. (°C)	245 °C within 20 sec	260 °C within 10 sec

PART SPEC / DIMENSION	Package Size	Mini PLCC-2 (2.0 x 1.4 x 1.2mm)	Mini PLCC-2 (2.0 x 1.4 x 1.3
	LED EMITTING COLOR	White	White
	LED EPOXY COLOR	Water Clear	Water Clear
	LED LEADS	SMT 2 pins	SMT 2 pins
	LED DIE TECHNOLOGY	InGaN	InGaN
	MOISTURE SENSITIVITY LEVEL	2	3
	Packaging	3000 pcs / reel	3000 pcs / reel

Old Part Drawing



New Part Drawing



-107F

TICS @

MAX

530

3.3V

475

IGS @

mm)

WHITE

TICS @

MAX

650

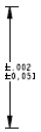
3.1V

.309

307

IGS @

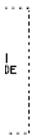
mm)



0.002
0.001

CLARITY MARK

0.002
0.001



0.002
0.001

LED COMPARISON TABLE

For EOL part numbers: 597-3601-202F, 597-3601-207F, 597-3901-202F, 597-3901-207F

and Replacement part numbers: 598-8B90-102F, 598-8B90-107F, 597-3901-407F

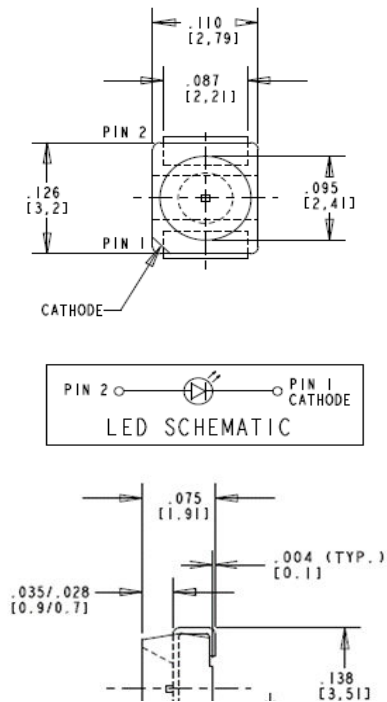
#1	PARAMETER	597-3601-202F / 597-3601-207F OLD DIE BLUE				598-8B90-102F / 598-8B90-107F NEW DIE BLUE			
PARAMETERS		OPERATING CHARACTERISTICS @ 25°C AMBIENT				OPERATING CHARACTERISTICS @ 25°C AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	10mA	14		35	20mA	230	395	560
	FORWARD VOLTAGE (V)	10mA	2.7	3.1	3.7	20mA		2.8	3.5
	DOMINANT WAVELENGTH (nm)		465	471	477		465	470	475
	VIEWING ANGLE 2θ1/2 (deg)	120				120			
	REVERSE CURRENT (uA)	10uA (Vr=5V)				10uA (Vr=5V)			
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C				ABSOLUTE MAXIMUM RATINGS @ TA=25° C			
	POWER DISSIPATION (mW)	80mW				100mW			
	PEAK FORWARD CURRENT (mA)	20mA				100mA			
	FORWARD CURRENT (mA)	20mA				30mA			
	REVERSE VOLTAGE	5V				5V			
	OPERATING TEMP. RANGE (°C)	-40C to +100C				-40C to +85C			
	STORAGE TEMP. RANGE (°C)	-40C to +100C				-40C to +100C			
	Reflow SOLDERING TEMP. (°C)	260 °C within 5 sec				260 °C within 10 sec			
PART SPEC / DIMENSION	Package Size	PLCC-2 (3.5 x 2.8 x 1.9mm)				PLCC-2 (3.5 x 2.8 x 1.9mm)			
	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			
	MOISTURE SENSITIVITY LEVEL	2				3			
	Packaging	2000 pcs / reel				2000 pcs / reel			

#2	PARAMETER	597-3901-202F / 597-3901-207F OLD DIE WHITE				597-3901-407F NEW DIE WHITE			
PARAMETERS		OPERATING CHARACTERISTICS @ 25°C AMBIENT				OPERATING CHARACTERISTICS @ 25°C AMBIENT			
		If	MIN	TYP	MAX	If	MIN	TYP	MAX
	LUMINOUS INTENSITY (mcd)	20mA	90		180	10mA	180	250	330
	FORWARD VOLTAGE (V)	20mA		3.5	4.2	10mA	2.7	3.1	3.5
	DOMINANT WAVELENGTH (nm)	Chromaticity Coordinates	x = 0.29 min-0.365max y = 0.22 min-0.42max			Chromaticity Coordinates	x = 0.304 typ y = 0.298 typ		
	VIEWING ANGLE 2θ1/2 (deg)	120				115			
	REVERSE CURRENT (uA)	10uA (Vr=5V)				10uA (Vr=5V)			

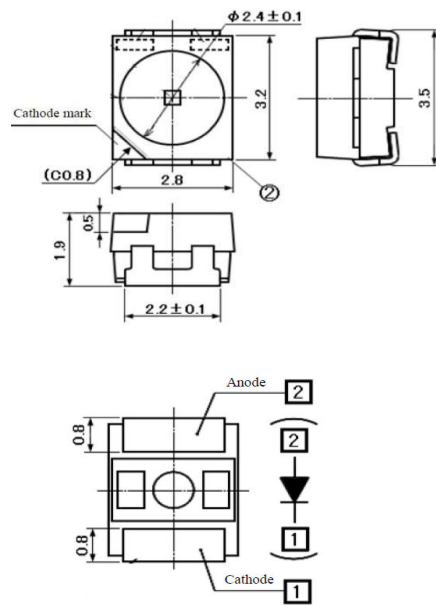
RATING / CHARACTERISTICS		ABSOLUTE MAXIMUM RATINGS @ TA=25° C	ABSOLUTE MAXIMUM RATINGS @ TA=25° C
	POWER DISSIPATION (mW)	85mW	76mW
	PEAK FORWARD CURRENT(mA)		100mA
	FORWARD CURRENT (mA)	20mA	20mA
	REVERSE VOLTAGE	5V	5V
	OPERATING TEMP. RANGE (°C)	-40C to +100C	-40C to +100C
	STORAGE TEMP. RANGE (°C)	-40C to +100C	-40C to +120C
	Reflow SOLDERING TEMP. (°C)	260 °C max	260 °C max

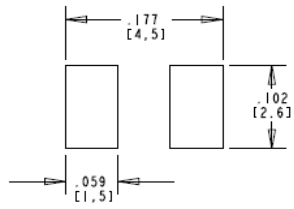
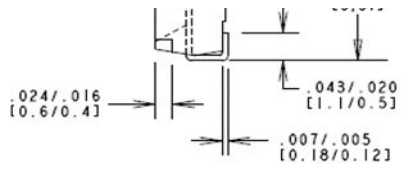
PART SPEC / DIMENSION	Package Size	PLCC-2 (3.5 x 2.8 x 1.9mm)	PLCC-2 (3.5 x 2.8 x 1.9mm)
	LED EMITTING COLOR	White	White
	LED EPOXY COLOR	Diffused	Diffused
	LED LEADS	SMT, 2 pins, Tin Plating	SMT, 2 pins, Au Plating
	LED DIE TECHNOLOGY	InGaN	InGaN
	MOISTURE SENSITIVITY LEVEL	2	2a
	Packaging	2000 pcs / reel	2000 pcs / reel

Old Part Drawing



New Part Drawing





RECOMMENDED SOLDER PAD LAYOUT

