

DIALIGHT PART NUMBER	COLOR	LED DIE	LED EPOXY COLOR
597-3007-502F, -507F	RED	AlGaInP ON GaAs	WATER CLEAR
597-3027-502F, -507F			
597-3207-502F, -507F	ORANGE	InGaN	
597-3327-502F, -507F	GREEN		
597-3407-502F, -507F	YELLOW	AlGaInP ON GaAs	
597-3507-502F, -507F	YELLOW GREEN	InGaN	
597-3607-502F, -507F	BLUE		
597-3907-502F, -507F	WHITE		
			DIFFUSED WHITE

### RoHS COMPLIANT 597-3XX7-50XF

Part Numbers with the "F" suffix ending are RoHS Compliant.  
 For example: 597-3027-502F  
 Reel and bag packaging are marked with "RoHS Compliant" label or equivalent markings. These parts can be used with RoHS reflow profile. Parts can be wave soldered, dip soldered or hand soldered using typical lead-free soldering process with max 260°C temp. for 5 sec.

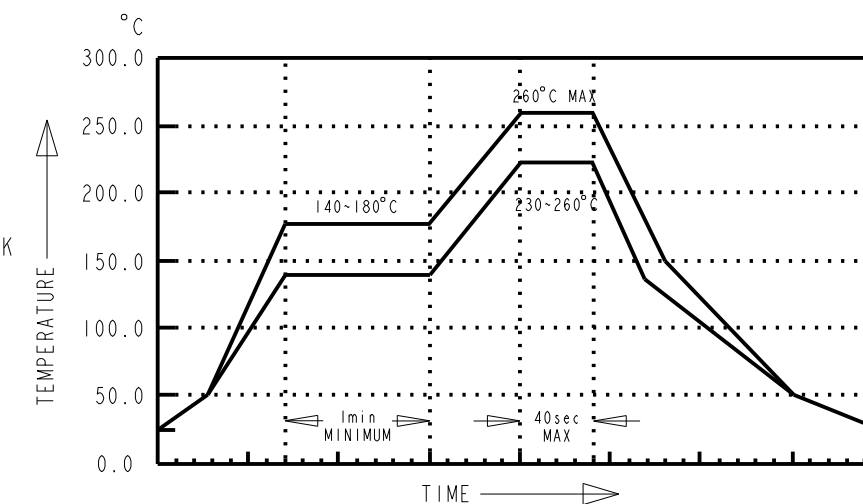
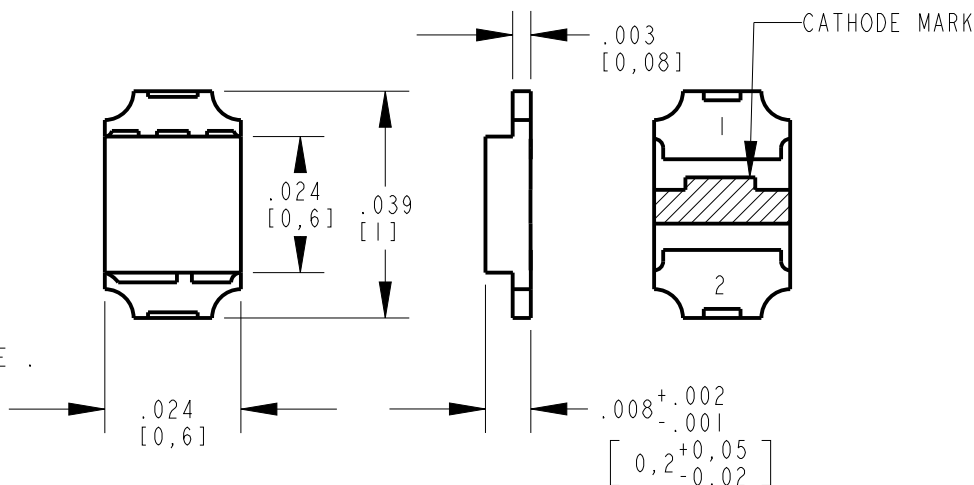
REV	ECN NO	REVISIONS	DRN	CKD	APP	DATE
A	---	NEW RELEASE	WFB	JTD	NO	11-20-12
B	---	ADDED P/N 597-3327-502F, -507F	WFB	JTD	KLJ	9-11-13
C	---	UPDATED LED CHARACTERISTICS	VP	JTD	NO	2-9-16



**ATTENTION:**  
 OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

**NOTES:**

- DIALIGHT PART NUMBERS: 597-3XX7-50XF.
- TAPE & REEL MAY REQUIRE RE-TAPING AFTER 12 MONTHS.
- PIN NUMBERS ARE FOR REFERENCE ONLY. DESIGNATION NON-EXISTENT ON PART OR REEL TAPE.
- ...502F SUFFIX MEANS PARTS PACKAGED ON A 20 PC SAMPLE STRIP.  
 ...507F SUFFIX MEANS PARTS PACKAGED ON A 7" [Ø180mm] REEL, 5,000 PCS/REEL.
- MOISTURE SENSITIVITY LEVEL: 3
- PACKAGING TO INCLUDE LABEL CONTAINING DIALIGHT PART NUMBER, DATE CODE/LOT NO., LUMINOUS INTENSITY AND COLOR BINS, QTY/REEL, AND COUNTRY OF ORIGIN.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND STORAGE IN ACCORDANCE WITH IPC-A-610.
- \* CHROMATICITY COORDINATES (TYP)

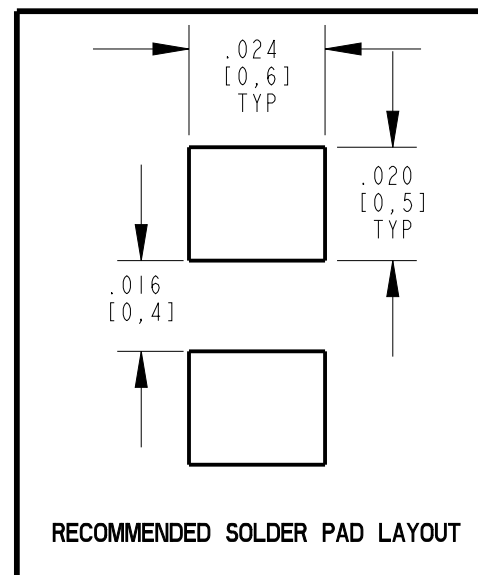


**RECOMMENDED RoHS SOLDER PROFILE**

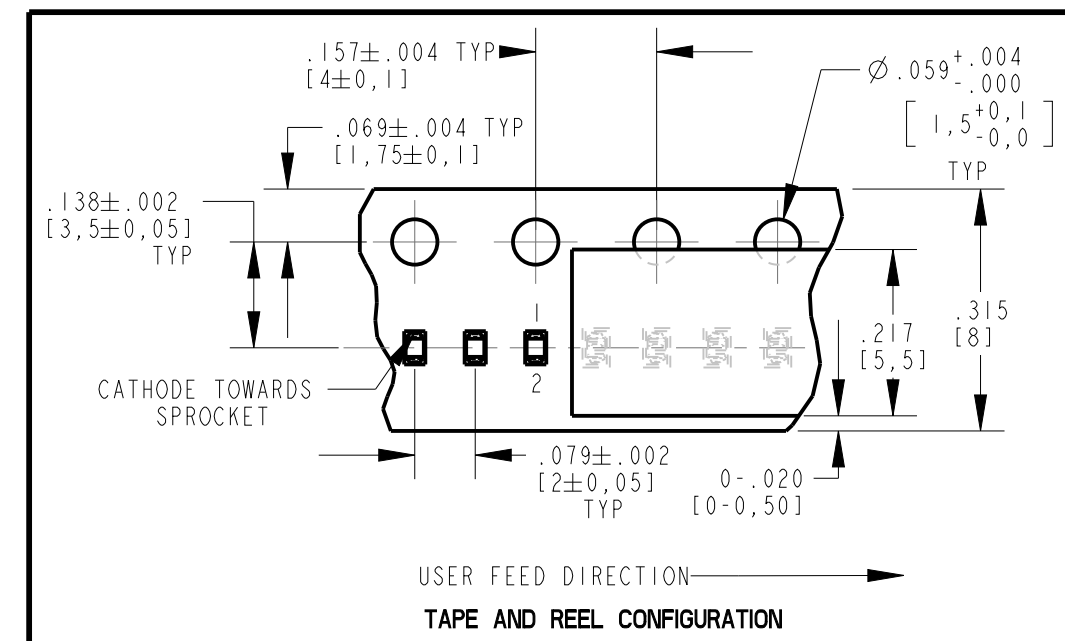
ABOVE CONDITIONS ARE FOR REFERENCE. SUGGEST CUSTOMER EVALUATE USING OWN CIRCUIT BOARDS AND REFLOW OVEN.

**OPERATING CHARACTERISTICS AT 25°C AMBIENT**

COLOR	LUMINOUS INTENSITY			FORWARD VOLTAGE		REVERSE CURRENT		DOMINANT WAVELENGTH				VIEWING ANGLE
	I <sub>F</sub>	MIN (mcd)	TYP (mcd)	I <sub>F</sub>	TYP (V)	V <sub>R</sub>	MAX (µA)	I <sub>F</sub>	MIN (nm)	TYP (nm)	MAX (nm)	TYP (DEG)
RED (630nm)	20 mA	25	60	20 mA	2.0	5V	10	20 mA	625	630	635	135
RED (620nm)		40	85						615	620	625	
ORANGE		63	100						602	605	608	
YELLOW		40	130						587	590	593	
YELLOW GREEN	5 mA	10	25	5 mA	2.9	100	5 mA	569	572	575		
GREEN		56	110					520	527	535		
BLUE		9	25					465	470	475		
WHITE	90	150	*(X,Y) (0.30,0.30)									

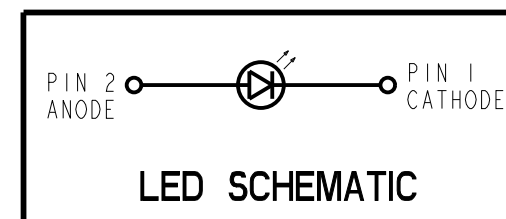


**RECOMMENDED SOLDER PAD LAYOUT**



**USER FEED DIRECTION**  
**TAPE AND REEL CONFIGURATION**

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT	COLOR								UNITS
	RED (630nm)	RED (620nm)	ORANGE	YELLOW	YELLOW GREEN	BLUE	GREEN	WHITE	
POWER DISSIPATION	50		52		54		33		mW
FORWARD CURRENT	20				10				mA
PEAK FORWARD CURRENT (1/10 DUTY CYCLE, 1kHz)	100				50				mA
DERATE LINEARLY FROM 40°C (BLUE AND WHITE DERATE LINEARLY FROM 25°C)	0.26				0.26		0.125		mA/°C
REVERSE VOLTAGE	5								V
STORAGE TEMPERATURE	-40 TO +100								°C
OPERATING TEMPERATURE	-40 TO +85								°C



**LED SCHEMATIC**

THIS DRAWING AND THE CONTENTS HEREIN ARE CONFIDENTIAL AND THE SOLE PROPERTY OF DIALIGHT. REPRODUCTION OF THIS DRAWING OR CONSTRUCTION OF ANY PARTS WITHIN THIS DRAWING ARE FORBIDDEN WITHOUT THE WRITTEN CONSENT OF DIALIGHT.

SCALE: 30.000  
 ALL DIM'S IN: INCHES (MM)

TOLERANCES: UNLESS OTHERWISE SPECIFIED  
 FRACTIONS: ±1/64  
 DECIMALS (.XX): ±.01  
 DECIMALS (.XXX): ±.002  
 DECIMALS (.XXXX): ±.0005  
 ANGLES: ±1°  
 FINISH:

DRAWING NUMBER: C-18001  
 REV: C

TITLE: 0402 SINGLE COLOR SMT LED

MATERIAL:

**Dialight** 1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727

FSCM 83330  
 SHEET 1 OF 1 FAMILY TABLE: