

PART NUMBER	COLOR	
	POSITION 1	POSITION 2
596-2020-013F	RED	RED
596-2023-013F	RED	YELGRN
596-2320-013F	YELGRN	RED
596-2323-013F	YELGRN	YELGRN
596-2324-013F	YELGRN	YELLOW
596-2326-013F	YELGRN	BLUE
596-2420-013F	YELLOW	RED
596-2423-013F	YELLOW	YELGRN
596-2424-013F	YELLOW	YELLOW
596-2429-013F	YELLOW	TGREEN
596-2525-013F	ORANGE	ORANGE
596-2626-013F	BLUE	BLUE
596-2828-013F	WHITE	WHITE
596-2926-013F	GREEN	BLUE
596-2929-013F	GREEN	GREEN
596-1010-013F	RED - 2ma	RED - 2ma
596-1414-013F	YELLOW - 2ma	YELLOW - 2ma
596-1515-013F	ORANGE - 2ma	ORANGE - 2ma

ABSOLUTE MAXIMUM RATINGS AT 25°C FOR 20mA PARTS							
LED COLOR	POWER DISSIPATION (mW)	FORWARD CURRENT (mA)	PEAK FORWARD CURRENT (mA)	REVERSE VOLTAGE (V)	OPERATING TEMPERATURE (°C)	STORAGE TEMPERATURE (°C)	JUNCTION TEMPERATURE (°C)
RED	48	20	100	5	-40 TO +85	-40 TO +100	90
ORANGE	60		80				90
YELLOW	48		100				90
YELLOW GREEN	48		100				90
GREEN	70		100				95
BLUE	70		100				95
WHITE	91	30	100		-40 TO +100	-40 TO +100	

OPERATING CHARACTERISTICS AT 25°C FOR 20mA PARTS											
LED COLOR	LUMINOUS INTENSITY (mcd) @ IF=10 mA			DOMINANT WAVELENGTH (nm)			REVERSE CURRENT	FORWARD VOLTAGE IF=20mA		VIEWING ANGLE (DEG) @ 50% IV	THERMAL RESISTIVITY (°C/W)
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.		MAX.	TYP.		
RED		35			625		10µA @ VR=5V	1.8	2.4	30	290
ORANGE		17			605			1.8	2.4		290
YELLOW		20			590			1.8	2.4		290
YELLOW GREEN		3			570			1.8	2.4		290
GREEN		140			525			2.8	3.5		110
BLUE		45			470			2.8	3.3		110
WHITE		100			*X=.281 Y=.247		2.7	3.1		300	

\*CHROMACITY COORDINATES

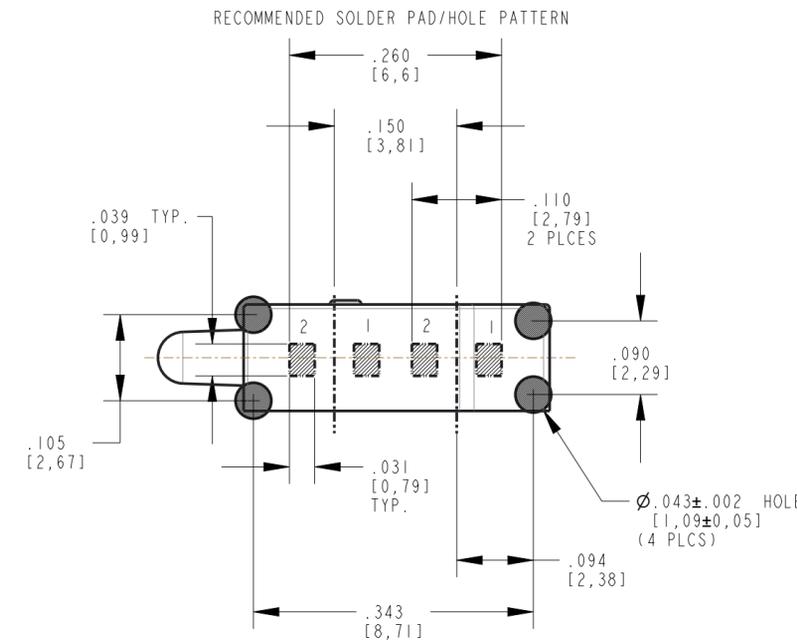
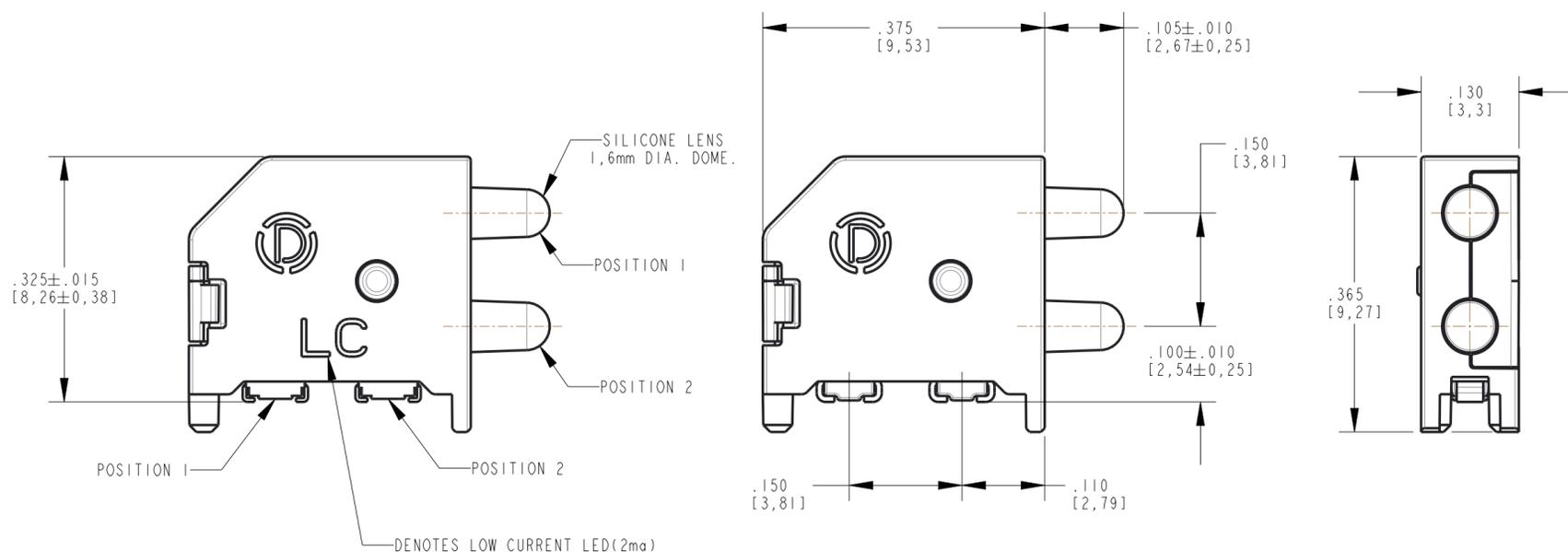
ABSOLUTE MAXIMUM RATINGS AT 25°C FOR 2mA PARTS						
LED COLOR (nm)	FORWARD CURRENT (mA)	SURGE CURRENT (mA) t<10µs; D = .005	REVERSE VOLTAGE (V)	OPERATING TEMPERATURE (°C)	STORAGE TEMPERATURE (°C)	JUNCTION TEMPERATURE (°C)
RED (630)	20	100	12	-40 TO +100	-40 TO +100	+100
ORANGE (606)	20	100				
YELLOW (588)	20	100				

OPERATING CHARACTERISTICS AT 25°C 2mA PARTS														
LED COLOR (nm)	CHROMACITY COORDINATE		LUMINOUS INTENSITY (mcd) @ IF=10 mA			DOMINANT WAVELENGTH (nm)			REVERSE CURRENT	FORWARD VOLTAGE IF=2mA			VIEWING ANGLE (DEG) @ 50% IV	THERMAL RESISTIVITY (°C/W)
	Cx	Cy	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.		MAX.	MIN.	TYP.		
RED (630)				6.0		624	630	636	10µA @ VR=12V	1.7	1.8	2.2	30	R,O,Y +280
ORANGE (606)				5.5		600	606	609		1.7	1.8	2.2		
YELLOW (588)				5.0		580	587	595		1.7	1.8	2.2		

REV	REVISIONS	DRN	APP	DATE
A	NEW RELEASE	JGL		01/31/2020
B	REMOVED 7" REEL/PART NUMBERS	JGL		9/03/2020
C	LUMINOUS INT & QUANTITY ADDED	LD	NO	01/27/2021
D	ADDED COLOR BLUE AND ITS VALUES	LD	NO	3/04/2021
E	DRAWING CORRECTION: PKG QTY FOR 13" REEL CHANGE FROM 1600 TO 500	LD	NO	3/31/2021
F	ADD NEW P/N 596-2320-002F/013F, REMOVE P/N 596-1616-002F/013F, REMOVE P/N 596-1818-002F/013F, REMOVE ICEBLUE AND WHITE LED SPECS FROM TABLES,	JSG	NO	CS 11OCT2023
G	REVISED NOTE 5, 8 AND BLUE SPEC, ADDED WHITE LED & PART NUMBER 596-2828-013F, REMOVED MSL, REMOVED PARTS WITH 002F SUFFIX	LD	CS	6-20-24
H	.043 ± .002 [1.09 ± .05] HOLE WAS .044 ± .005 [1.12 ± .127]	LD	CS	8-12-25

NOTES :

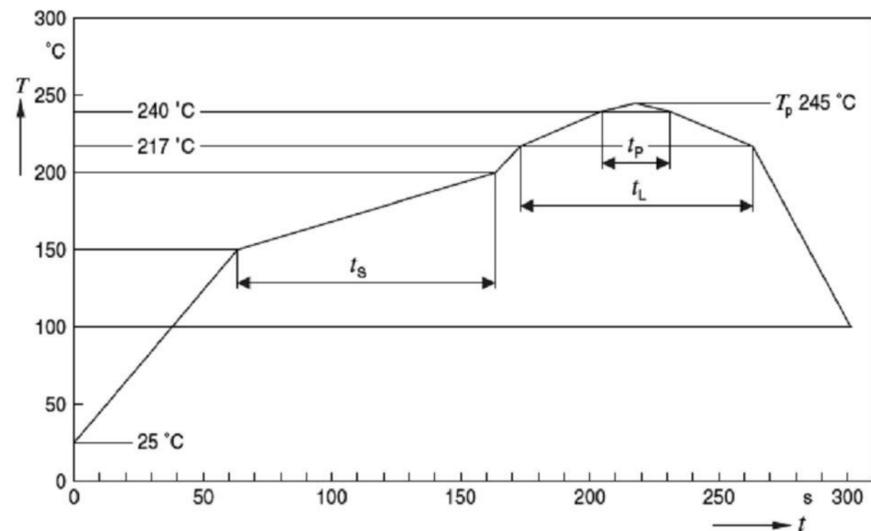
- MILLIMETER DIMENSIONS SHOWN FOR REFERENCE ONLY
- PAD NUMBERS ARE FOR REFERENCE ONLY , DESIGNATION NON-EXISTENT ON PART
- STORAGE CONDITIONS FOR TAPED PRODUCT: RE-TAPING MAY BE NECESSARY FOR PRODUCTS STORED MORE THAN TWELVE MONTHS
- ORDER QUANTITY IS LED ASSEMBLIES , NOT REELS
- ...-013F SUFFIX MEANS PARTS ARE PACKED ON A 13 INCH REEL , 500 pcs/REEL
- FRONT AND REAR TERMINALS OF THE ASSEMBLY TO BE WITHIN .005 COPLANARITY
- DIALIGHT PART NUMBERS FOR 20mA AND 2mA PARTS, 596-2X2X-0XXF; 596-1X1X-0XXF
- DRY PACK PACKAGING CONSIST OF A DESICCANT, HUMIDITY INDICATOR CARD IN A VACUUM SEALED MOISTURE BARRIER BAG, MOISTURE SENSITIVITY LABEL ON OUTSIDE OF BAG
- ATTENTION: OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.



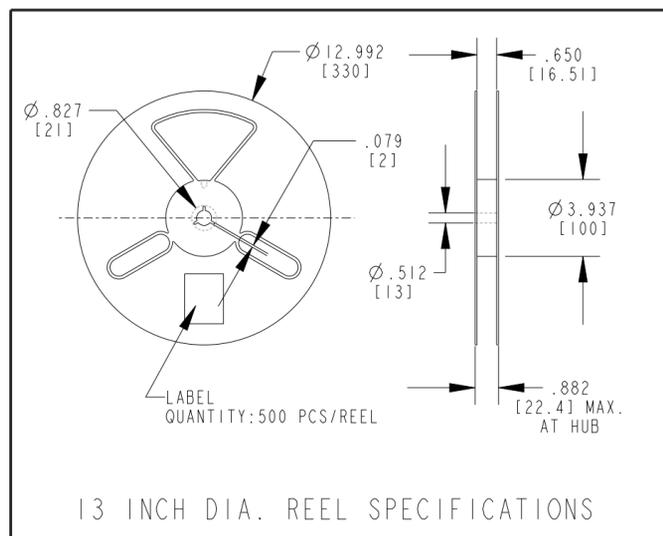
ATTENTION: OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

THIS DRAWING AND THE CONTENTS HEREIN ARE CONFIDENTIAL AND THE SOLE PROPERTY OF DIALIGHT CORP. REPRODUCTION OF THIS DRAWING OR CONSTRUCTION OF ANY PARTS WITHIN THIS DRAWING ARE FORBIDDEN WITHOUT THE WRITTEN CONSENT OF DIALIGHT CORP.		
DIALIGHT CORP INTERNAL REFERENCE ONLY - 3D MODEL : 5962X2XXF-A-17		
SCALE: 6.000	DRAWING NUMBER	REV
ALL DIM'S IN: INCHES (MM)	C-18463	H
TOLERANCES: UNLESS OTHERWISE SPECIFIED	TITLE	
FRACTIONS: ±1/64	1,6MM BI-LEVEL PRISM	
DECIMALS (.XX): ±.01	MATERIAL	
DECIMALS (.XXX): ±.005		
DECIMALS (.XXXX): ±.0005		
ANGLES: ±1°		
FINISH		
FSCM 83330	Dialight 1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727 (732) 919-3119 www.dialight.com	
SHEET 1 OF 2	FAMILY TABLE:	

2mA LED  
RECOMMENDED RoHS SOLDER PROFILE

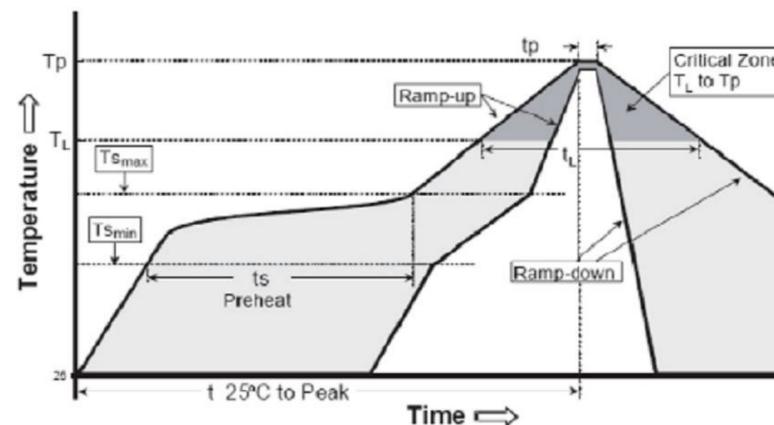


MARK	DEFINITION	CONDITION
$T_{S_{max}}$	Maximum of pre-heating temperature	200 °C
$T_{S_{min}}$	Minimum of pre-heating temperature	150 °C
$T_s$	Time form $T_{S_{min}}$ to $T_{S_{max}}$	60-120 sec
$T_L$	Reference temperature	217 °C
$t_L$	Retention time for $T_L$	within 80s
$T_p$	Peak Temperature	245 °C
$t_p$	Time for peak temperature	within 20s
$DTr/Dt$	Temperature rising rate	under 3° C/sec
$DTd/Dt$	Temperature decreasing rate	under -3° C/sec
$t$	25°C to $t_p$	480s

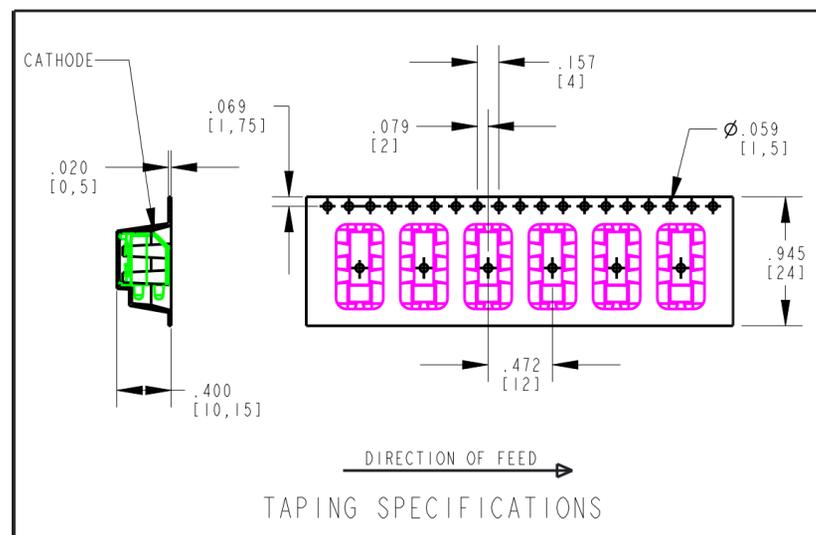


20mA LED  
RECOMMENDED RoHS SOLDER PROFILE

SMT Reflow Soldering Instructions SMT



MARK	DEFINITION	CONDITION
$T_{S_{max}}$	Maximum of pre-heating temperature	200 °C
$T_{S_{min}}$	Minimum of pre-heating temperature	150 °C
$T_s$	Time form $T_{S_{min}}$ to $T_{S_{max}}$	60-120 sec
$T_L$	Reference temperature	217 °C
$t_L$	Retention time for $T_L$	within 60s
$T_p$	Peak Temperature	260 °C
$t_p$	Time for peak temperature	within 10s
$DTr/Dt$	Temperature rising rate	under 3° C/sec
$DTd/Dt$	Temperature decreasing rate	under -3° C/sec
$t$	25°C to $t_p$	480s



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DIALIGHT CORP. INTERNAL REFERENCE ONLY = 3D MODEL : 396212XXXX-A.17		
SCALE: 6.000	DRAWING NUMBER	REV
ALL DIM'S IN: INCHES (MM)	C-18463	F
TOLERANCES: UNLESS OTHERWISE SPECIFIED	TITLE	
FRACTIONS: ±1/64	1,6MM BI-LEVEL PRISM	
DECIMALS (.XX): ±.01	MATERIAL	
DECIMALS (.XXX): ±.005		
DECIMALS (.XXXX): ±.0005		
ANGLES: ±1°		
FINISH	Dialight	
FSCM 83330	1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727 (732) 919-3119 www.dialight.com	
SHEET 2 OF 2	FAMILY TABLE:	