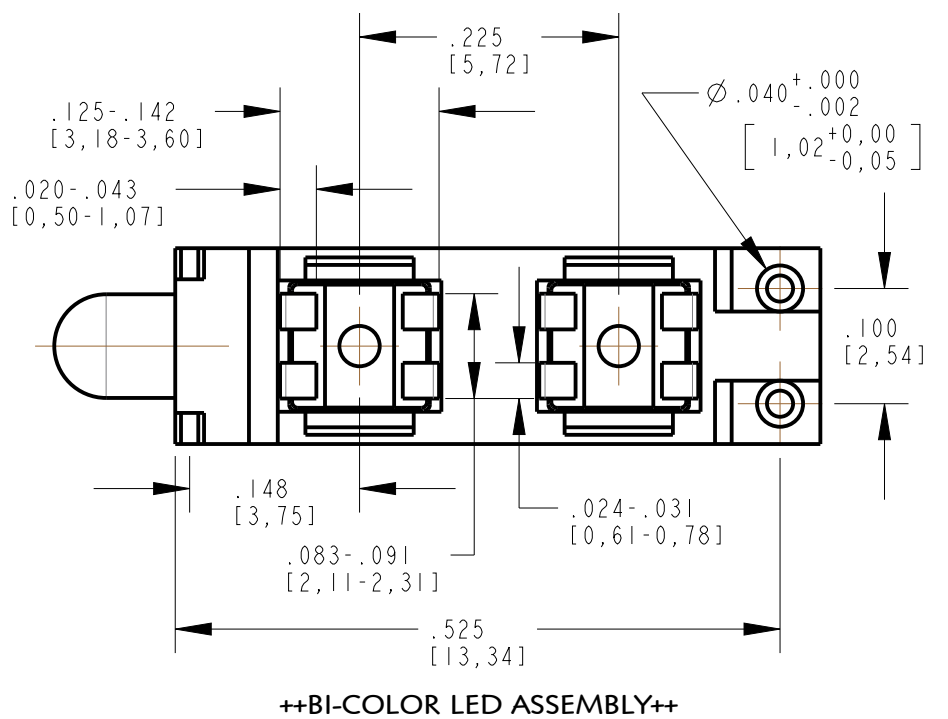
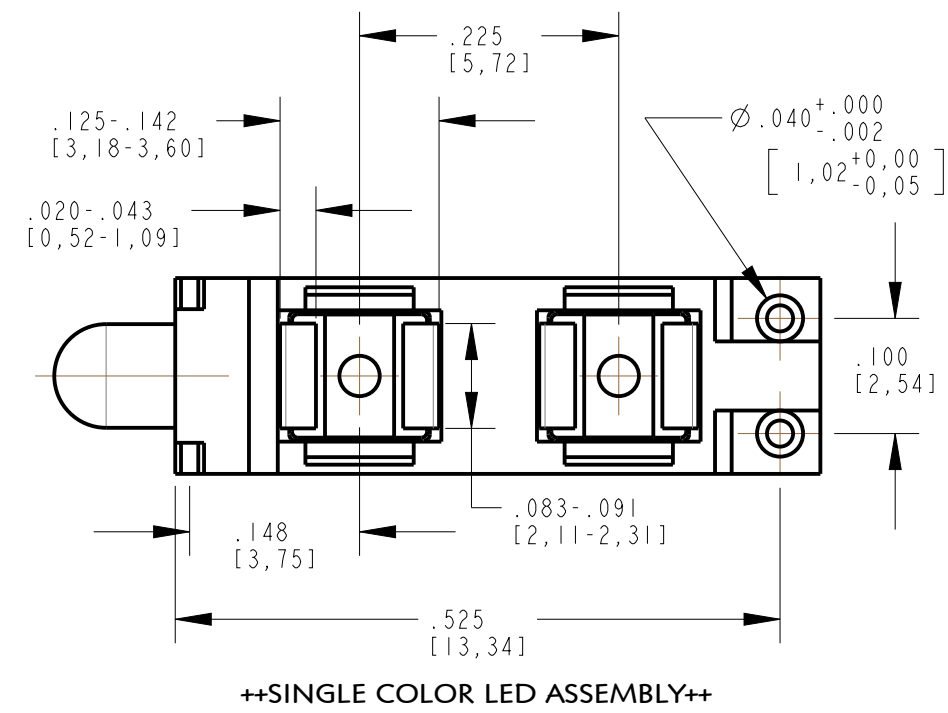
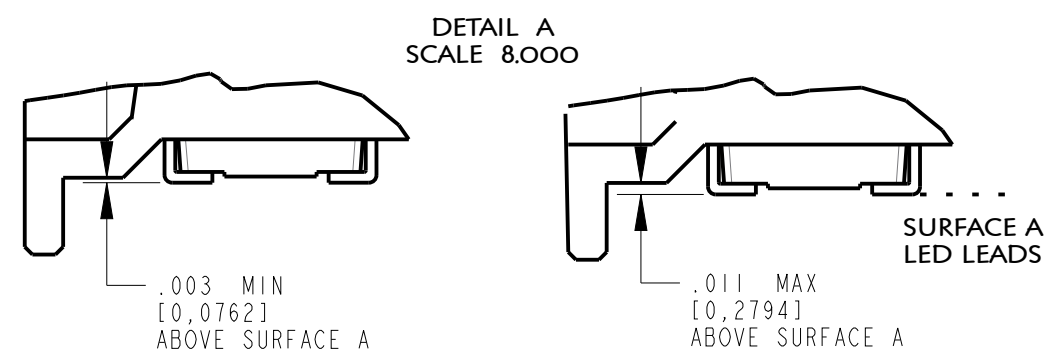
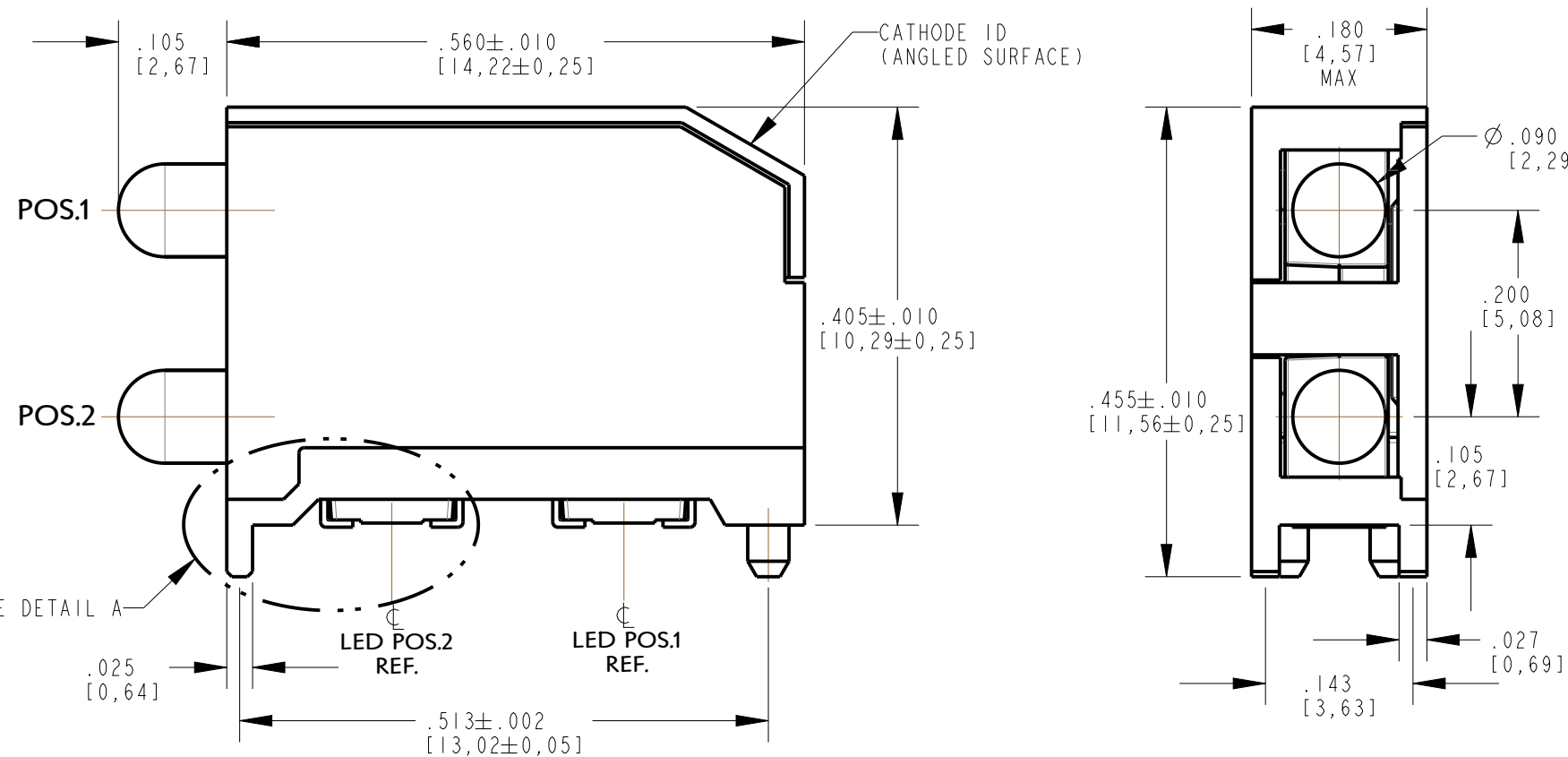


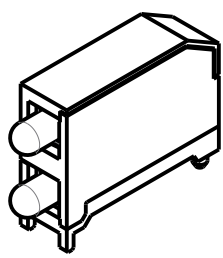
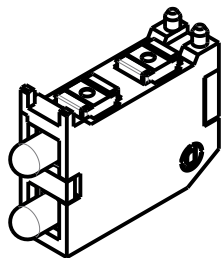
REV	REVISIONS	DRN	CKD	APP	DATE
A	NEW RELEASE	LD		NO	2-23-21

DIALIGHT PART NUMBER	PACKAGING	POSITION 1	POSITION 2	MSL
592-2020-302NF	SAMPLE STRIP	RED	RED	2
592-2020-313NF	13" REEL	RED [HI.EFF.]	RED [HI.EFF.]	2
592-2023-302NF	SAMPLE STRIP	RED	GREEN	2
592-2023-313NF	13" REEL	RED [HI.EFF.]	GREEN	2
592-2121-302NF	SAMPLE STRIP	RED	RED	3
592-2121-313NF	13" REEL	RED 640nm	RED 640nm	3
592-2122-302NF	SAMPLE STRIP	RED	GREEN	3
592-2122-313NF	13" REEL	RED 640nm	GREEN	3
592-2124-302NF	SAMPLE STRIP	RED	YELLOW	3
592-2124-313NF	13" REEL	RED 640nm	YELLOW	3
592-2126-302NF	SAMPLE STRIP	RED	BLUE	3
592-2126-313NF	13" REEL	RED 640nm	[1nGa]n	3
592-2135-302NF	SAMPLE STRIP	RED	RED/GRN/BLUE	3
592-2135-313NF	13" REEL	RED 640nm	RED/GRN/BLUE	3
592-2221-302NF	SAMPLE STRIP	GREEN	RED	2
592-2221-313NF	13" REEL	GREEN	RED 640nm	2
592-2320-302NF	SAMPLE STRIP	GREEN	RED	2
592-2320-313NF	13" REEL	GREEN	RED [HI.EFF.]	2
592-2323-302NF	SAMPLE STRIP	GREEN	GREEN	2
592-2323-313NF	13" REEL	GREEN	GREEN	2
592-2324-302NF	SAMPLE STRIP	GREEN	YELLOW	2
592-2324-313NF	13" REEL	GREEN	YELLOW	2
592-2326-302NF	SAMPLE STRIP	GREEN	BLUE	2
592-2326-313NF	13" REEL	GREEN	[1nGa]n	2
592-2420-302NF	SAMPLE STRIP	YELLOW	RED	2
592-2420-313NF	13" REEL	YELLOW	RED [HI.EFF.]	2
592-2422-302NF	SAMPLE STRIP	YELLOW	GREEN	2
592-2422-313NF	13" REEL	YELLOW	[HI.INT.]	2
592-2423-302NF	SAMPLE STRIP	YELLOW	GREEN	2
592-2423-313NF	13" REEL	YELLOW	GREEN	2
592-2424-302NF	SAMPLE STRIP	YELLOW	YELLOW	2
592-2424-313NF	13" REEL	YELLOW	YELLOW	2
592-2429-302NF	SAMPLE STRIP	RED/GREEN	YELLOW	2
592-2429-313NF	13" REEL	RED/GREEN	YELLOW (1nGa)n	2
592-2525-302NF	SAMPLE STRIP	YELLOW	RED	2
592-2525-313NF	13" REEL	ORANGE	ORANGE	2
592-3024-302NF	SAMPLE STRIP	RED/GREEN	YELLOW	2
592-3024-313NF	13" REEL	RED/GREEN	YELLOW	2
592-3123-302NF	SAMPLE STRIP	YELLOW/GREEN	GREEN	2
592-3123-313NF	13" REEL	YELLOW/GREEN	GREEN	2
592-3520-302NF	SAMPLE STRIP	RED/GRN/BLUE	RED	2
592-3520-313NF	13" REEL	RED/GRN/BLUE	RED	2



NOTES :

1. DIALIGHT PART NUMBERS: 592-XXXX-3XXNF.
2. ...-302NF SUFFIX MEANS PARTS ARE SUPPLIED ON A 10 PCS. SAMPLE STRIP
...-313NF SUFFIX MEANS PARTS ARE SUPPLIED ON A 13 INCH REEL, 300 pcs/REEL
3. FRONT AND REAR TERMINALS [OF EACH LED] OF THE ASSEMBLY TO BE WITHIN
.005" COPLANARITY.
4. STORAGE CONDITIONS FOR TAPED PRODUCT: RE-TAPING MAY BE NECESSARY FOR
PRODUCT STORED MORE THAN TWELVE MONTHS.
5. PIN NUMBERS ARE FOR REFERENCE ONLY , DESIGNATION NON-EXISTENT ON PART.
6. MOISTURE SENSITIVITY LEVEL LABEL WILL BE PLACED ON BAG. CHECK CHART FOR
PROPER LEVEL.
7. THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS).
MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND
STORAGE IN ACCORDANCE WITH IPC-A-610.
8. FLAMMABILITY RATING
HOUSING: UL-94-V0
SILICONE LENS AND LED: UL-94HB



SCALE 2.000

OPERATING CHARACTERISTICS AT 25°C AMBIENT - SINGLE COLOR LEDs											
COLOR		LUMINOUS INTENSITY (mcd)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			PEAK WAVELENGTH (nm)	FORWARD VOLTAGE (V) @ 20mA		REVERSE CURRENT (μA)	
#	DESCRIPTION	TYP		MIN	TYP	MAX	TYP	TYP	MAX	MAX	
20	RED [H1_EFF]	12	10	627	633	639	635	2.0	2.3	10	@ V _F =12 V
21	RED [AlGaAs]	29	10	—	640	—	660	1.85	2.5	10	@ V _F =12 V
22	GREEN [H1_INT]	18	10	564	570	576	572	2.0	2.5	10	@ V _F =12 V
23	GREEN	18	10	566	570	575	572	2.0	2.4	10	@ V _F =12 V
24	YELLOW	50	10	580	587	595	586	2.0	2.4	10	@ V _F =5 V
25	ORANGE	81	10	600	606	609	610	2.0	2.4	10	@ V _F =5 V
26	BLUE [InGaN]	6	10	462	465	468	428	3.5	4.1	10	@ V _R =12 V
27	YELLOW [AlInGaP]	60	20	580	587	595	591	2.0	2.4	10	@ V _R =12 V
28	WHITE	34	10	X = 285; Y = 259; Z = 33; 33; 40	33; 33; 40	367	—	3.1	3.7	10	@ V _R =5 V
29	GREEN [InGaN]	56	20	—	525	—	523	3.1	4.3	10	@ V _R =12 V

ABSOLUTE MAXIMUM RATINGS AT 25 °C AMBIENT SINGLE COLOR LEDs	COLOR										UNITS
	RED [H1.EFF]	RED [GoAlAs]	GREEN	GREEN [H1.INT]	YELLOW	YELLOW [AlInGaP]	ORANGE	WHITE	BLUE [InGaN]	GREEN [InGaN]	
PEAK FORWARD CURRENT (1/200 DUTY CYCLE, 10μs PULSE WIDTH)	1000	155	1000	1000	200	200	1000	200	200	200	mA
CONTINUOUS FORWARD CURRENT	30	30	30	30	30	30	30	20	20	30	mA
LINEAR DERATING	1.0 (FROM 85°C)	0.42 (FROM 25°C)	1.0 (FROM 85°C)	1.0 (FROM 85°C)	1.0 (FROM 85°C)	1.0 (FROM 85°C)	1.0 (FROM 85°C)	0.60 (FROM 75°C)	0.44 (FROM 55°C)	0.42 (FROM 40°C)	mA/°C
REVERSE VOLTAGE	12	12	12	12	12	12	12	5	5	5	V
LEAD REFLOW SOLDERING TEMP (FOR 5 SEC.)	260										°C
OPERATING TEMPERATURE	-40 TO +100	-40 TO +85			-40 TO +100					-55 TO +100	°C
STORAGE TEMPERATURE	-40 TO +100	-40 TO +85			-40 TO +100					-55 TO +100	°C

#30 & #31 OPERATING CHARACTERISTICS AT 25°C AMBIENT														
LED COLOR		LUMINOUS INTENSITY (mcd)				FORWARD VOLTAGE V _F = 12V		REVERSE CURRENT (μA)		DOMINANT WAVELENGTH			PEAK WAVELENGTH	
		MIN	TYP	MAX		TYP	MAX	TYP	MAX	MIN	TYP	MAX	TYP	
RED/GRN	RED	—	11	—						624	630	636	643	
	GREEN	—	5	—	1.8	2.2	0.01	10		560	570	575	572	
YLW/GRN	YELLOW	—	14	—						580	587	595	591	
	GREEN	—	5	—	1.8	2.2	0.01	10		560	570	575	572	

ABSOLUTE MAXIMUM RATINGS AT 25 °C AMBIENT RED/GRN & YLW/GRN Bi-COLOR LED	RED/GRN	YLW/GRN	UNITS
CONTINUOUS FORWARD CURRENT		15	mA
REVERSE VOLTAGE		12	V
SURGE CURRENT		100	mA
PEAK SOLDERING TEMPERATURE		245	°C
OPERATING TEMPERATURE	-40	+100	°C
STORAGE TEMPERATURE	-40	+100	°C

OPERATING CHARACTERISTICS AT 25° C AMBIENT - RED/YELLOW BI-COLOR LED								
#32	COLOR	LUMINOUS INTENSITY (mcd)	TEST CURRENT (mA)	DOMINANT WAVELENGTH			PEAK WAVELENGTH (nm)	FORWARD VOLTAGE (V)
				MIN	TYP	MAX	TYP	TYP
		RED	21	20	627	633	639	645
	YELLOW	34	20	580	587	595	591	2.0 2.4

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - RED/YELLOW BI-COLOR LED	RED	YELLOW	UNITS
POWER DISSIPATION	80	80	mW
PEAK FORWARD CURRENT (1/200 DUTY CYCLE, 10μs PULSE WIDTH)	1000	200	mA
CONTINUOUS FORWARD CURRENT	30	30	mA
LINEAR DERATING FROM 75°C	0.6	0.6	mA/°C
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)	260		
OPERATING TEMPERATURE	-40 TO +100		°C
STORAGE TEMPERATURE	-40 TO +100		°C

OPERATING CHARACTERISTICS AT 25 °C AMBIENT - RED/BLUE BI-COLOR LED									
#34	COLOR	LUMINOUS INTENSITY (mcd)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			PEAK WAVELENGTH (nm)	FORWARD VOLTAGE (V)	
		TYP		MIN	TYP	MAX	TYP	TYP	MAX
	RED	21	1.0	620	625	630	—	1.9	2.2
BLUE	24	1.0	465	467	470	—	3.0	3.2	

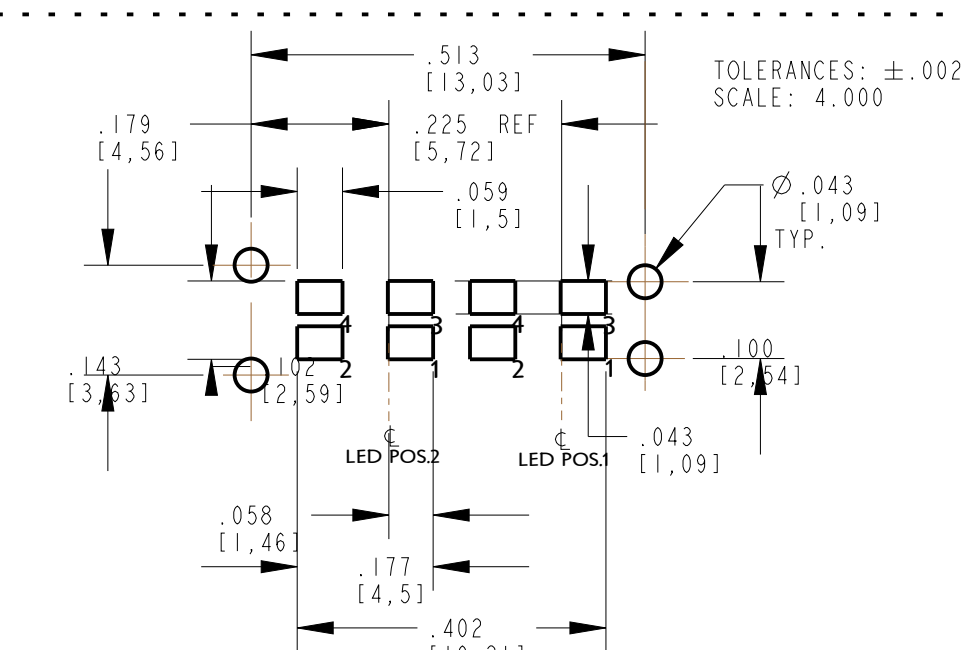
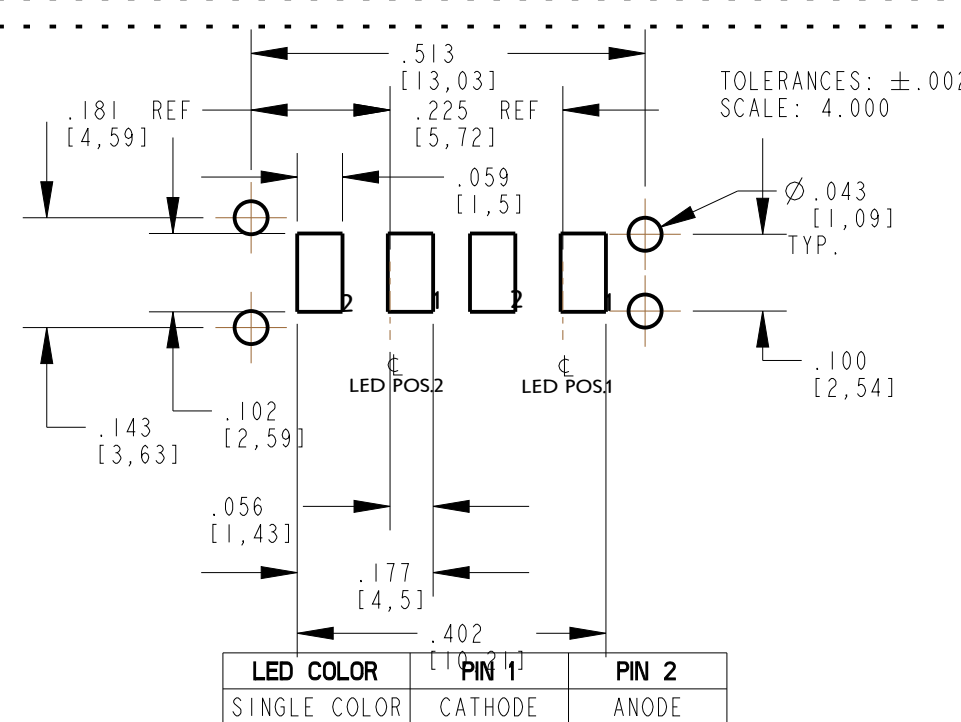
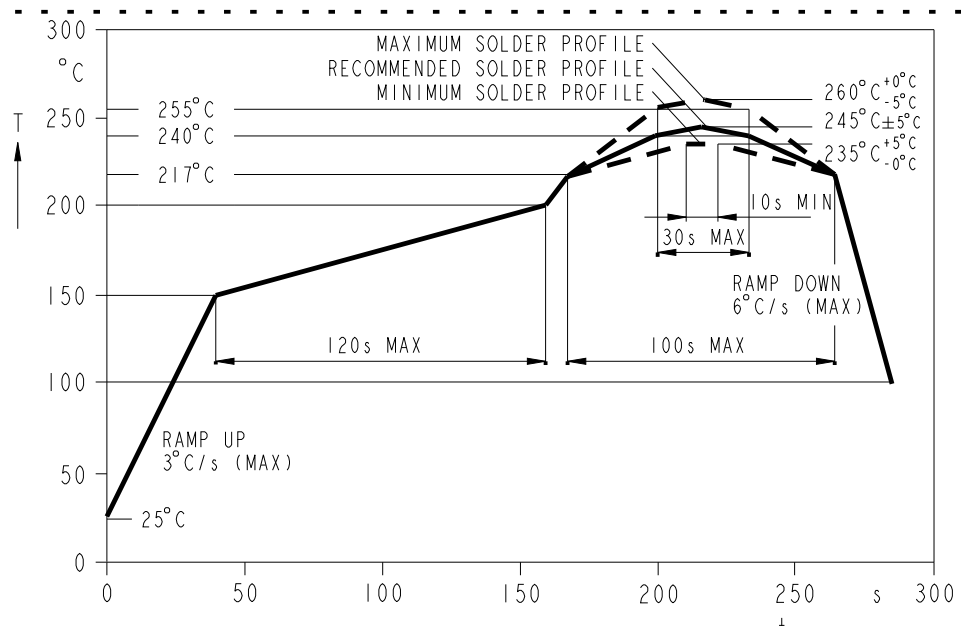
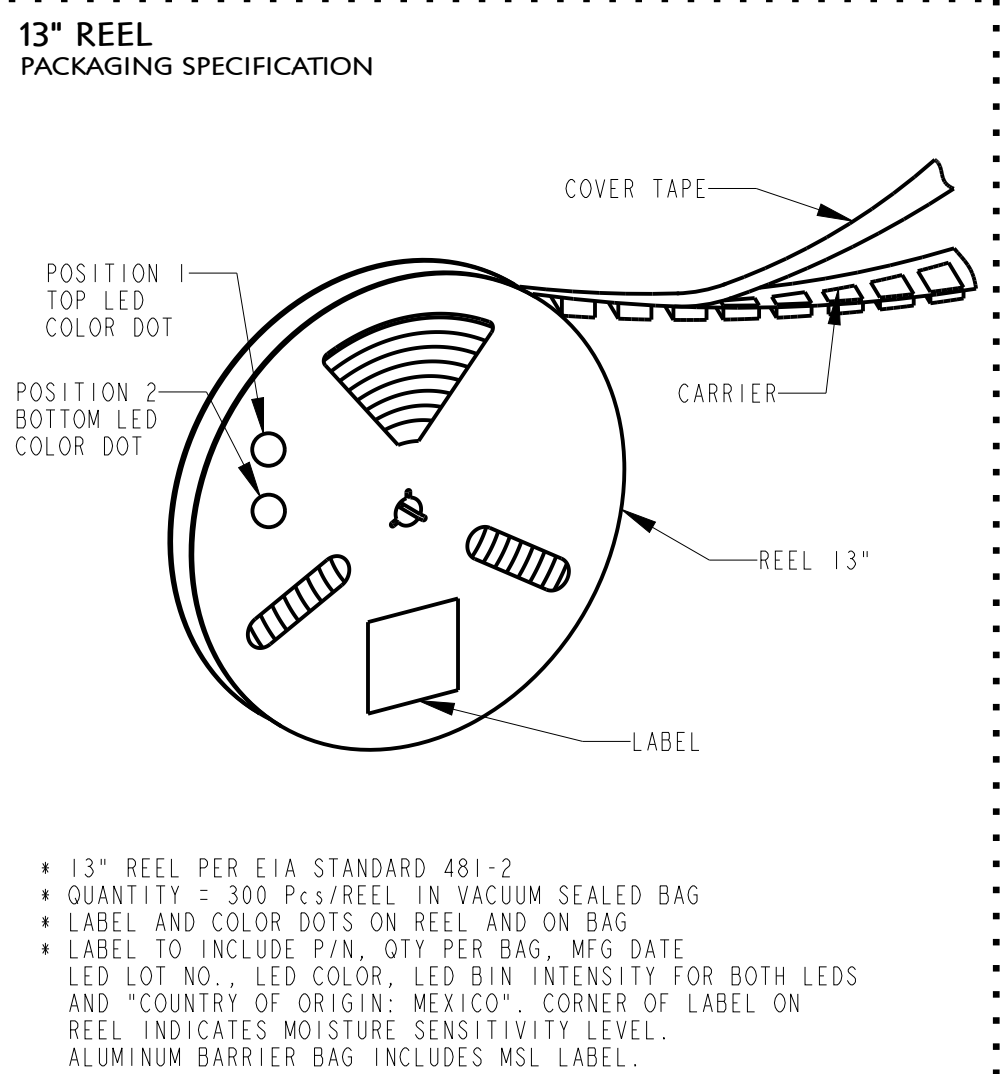
ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - RED/BLUE BI-COLOR LED	RED	BLUE	UNITS
PEAK FORWARD CURRENT (1/10 DUTY CYCLE, 10ms PULSE WIDTH)	100		mA
CONTINUOUS FORWARD CURRENT	30		mA
LINEAR DERATING FROM 80°C	1.0		mA/°C
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)	260		°C
OPERATING TEMPERATURE	-40 TO +100		°C
STORAGE TEMPERATURE	-40 TO +100		°C

OPERATING CHARACTERISTICS AT 25 °C AMBIENT - RED/GRN/BLU TRI-COLOR LED								
#35 COLOR	LUMINOUS INTENSITY (mcd)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
			MIN	TYP	MAX	TYP	TYP	MAX
RED	31	20		626		635	1.9	2.4
GREEN	84	20		525		523	3.4	4.1
BLUE	16	20		470		468	3.4	4.1

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - RED/GRN/BLUE TRI-COLOR LED	RED	GREEN	BLUE	UNITS
POWER DISSIPATION	72	120	120	mW
CONTINUOUS FORWARD CURRENT	30	20	20	mA
LINEAR DERATING FROM 80°C (*BLUE & GREEN FROM 70°C) 1 CHIP ON	1.00	*0.50	*0.50	mA/°C
LINEAR DERATING FROM 65°C (*BLUE & GREEN FROM 50°C) 3 CHIPS ON	0.75	*0.30	*0.30	mA/°C
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)	260			°C
OPERATING TEMPERATURE	-55 TO +100			°C
STORAGE TEMPERATURE	-55 TO +100			°C

OPERATING CHARACTERISTICS AT 25°C AMBIENT - ORANGE/GREEN B-COLOR LED									
#36	COLOR	LUMINOUS INTENSITY (mcd)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
				MIN	TYP	MAX	TYP	TYP	MAX
	ORANGE	3	10	600	606	612	610	2.0	2.5
	GREEN	4	10	564	570	576	572	2.0	2.5

ABSOLUTE MAXIMUM RATINGS AT 25 °C AMBIENT - ORANGE/GREEN BI-COLOR LED	ORANGE	GREEN	UNITS
POWER DISSIPATION	95	95	mW
PEAK FORWARD CURRENT (1/200 DUTY CYCLE, 10µs PULSE WIDTH)	500	500	mA
CONTINUOUS FORWARD CURRENT	30	30	mA
LINEAR DERATING FROM 55°C	0.66	0.66	mA/°C
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)	260 °C		
OPERATING TEMPERATURE	-40 TO +100 °C		
STORAGE TEMPERATURE	-40 TO +100 °C		



LED COLOR	PIN 1	PIN 2	PIN 3	PIN 4
RED/YELLOW	RED CATHODE	RED ANODE	YELLOW ANODE	YELLOW CATHODE
YELLOW/GREEN	YELLOW CATHODE	YELLOW ANODE	GREEN ANODE	GREEN CATHODE
RED/GREEN	RED CATHODE	RED ANODE	GREEN ANODE	GREEN CATHODE
RED/BLUE	RED CATHODE	RED ANODE	BLUE ANODE	BLUE CATHODE
ORANGE/GREEN	ORANGE CATHODE	ORANGE ANODE	GREEN ANODE	GREEN CATHODE
R/G/B TRI-COLOR	RED CATHODE	COMMON ANODE	GREEN CATHODE	BLUE CATHODE



ATTENTION:
OBSERVE PRECAUTIONS FOR
HANDLING ELECTROSTATIC
SENSITIVE DEVICES

RoHS COMPLIANT 592-XXXX-3XXNF

Part Numbers with the "F" suffix ending are RoHS Compliant.
For example: 592-2020-302F
Packaging is 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.

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SCALE: 6.000		DRAWING NUMBER	
ALL DIM'S IN: INCHES (MM)		C-18503	
TOLERANCES: UNLESS OTHERWISE SPECIFIED FRACTIONS: $\pm 1/64$ DECIMALS (X.XX): $\pm .015$ DECIMALS (X.XXX): $\pm .010$		REV	
ANGLES: $\pm 1^\circ$		A	
FINISH:		TITLE	
FSCM 83330		BI-LEVEL PRISM RHQS COMPLANT	
		MATERIAL	
			
		1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07724	
		SHEET 1 OF 1 FAMILY TABLE:	