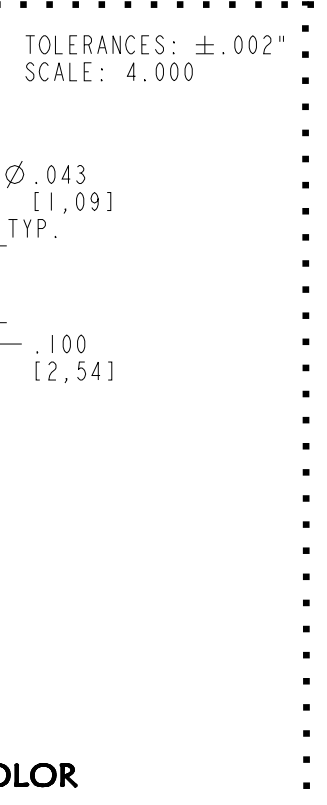
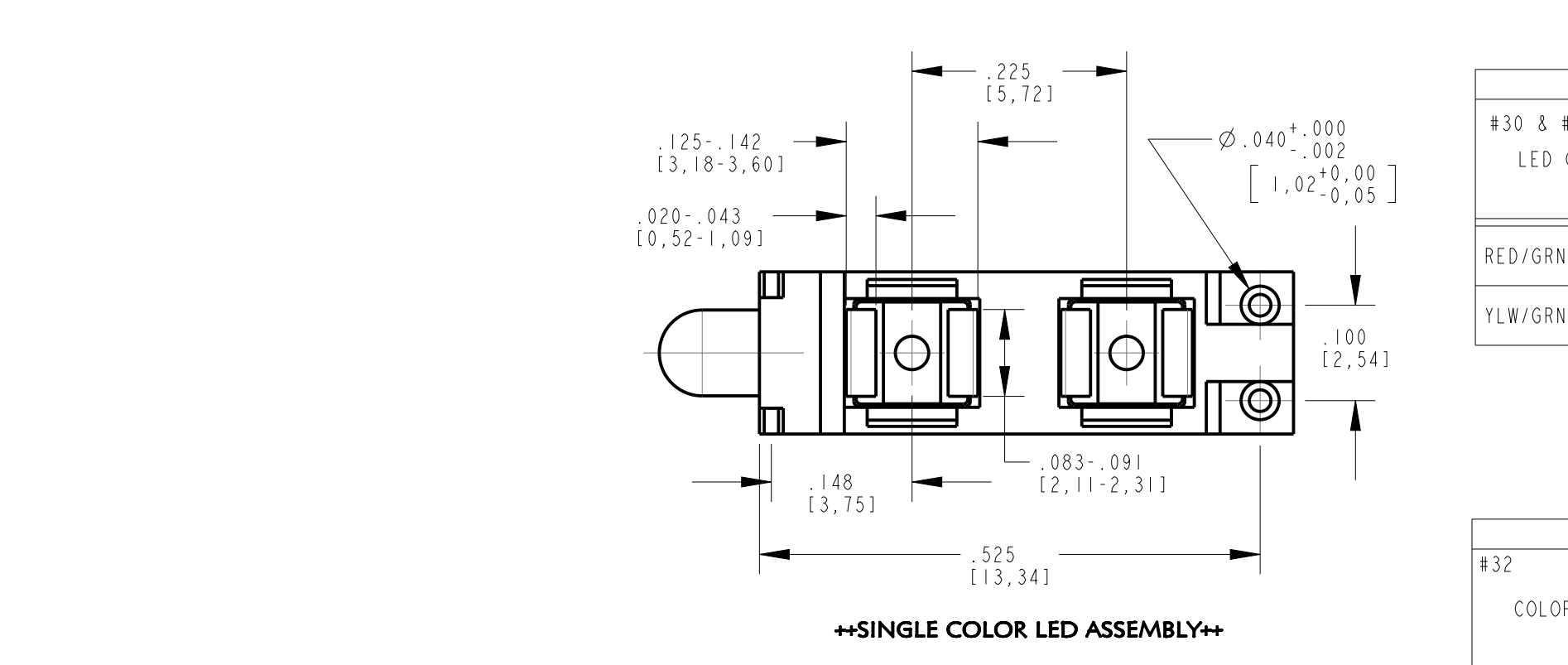
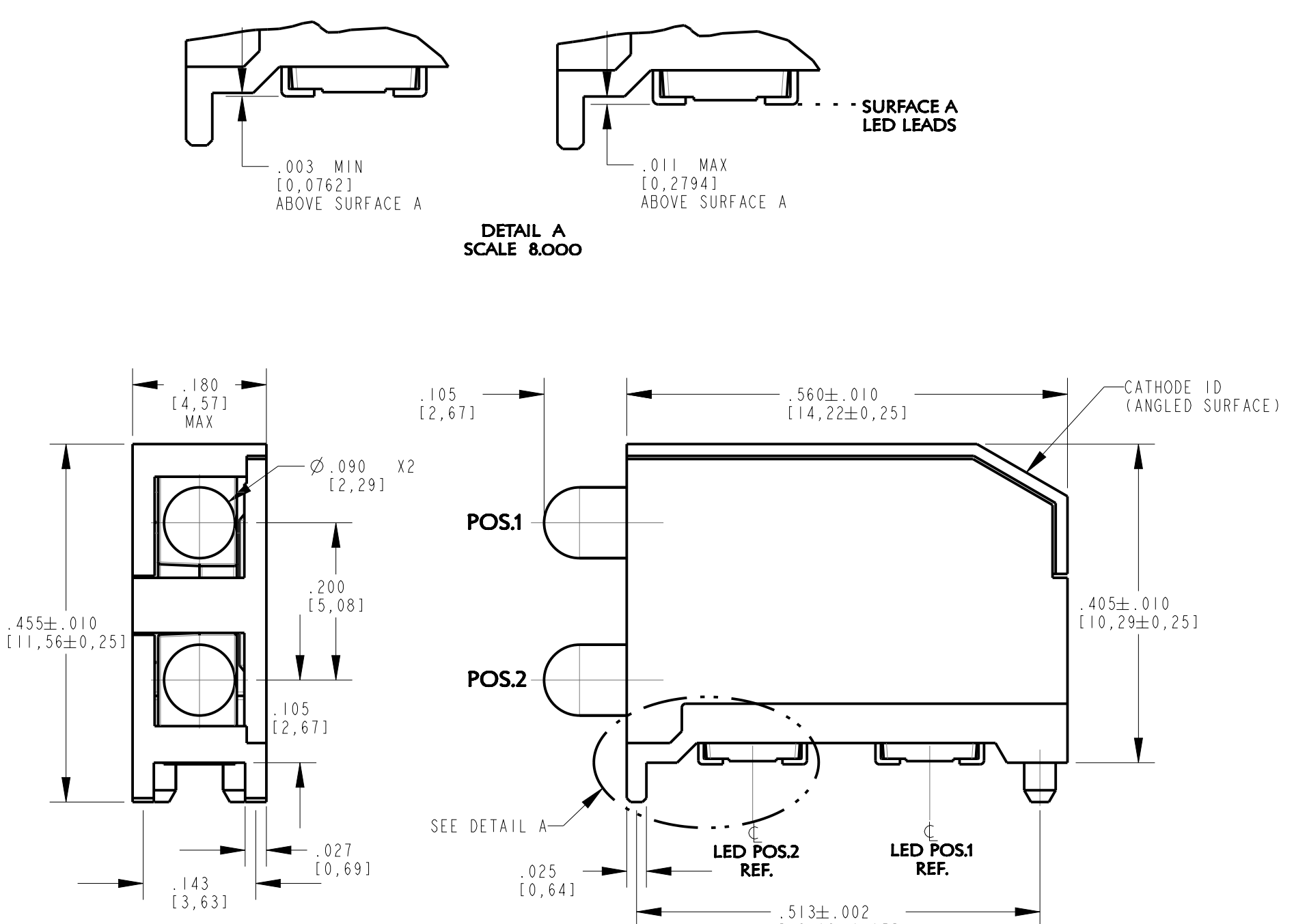
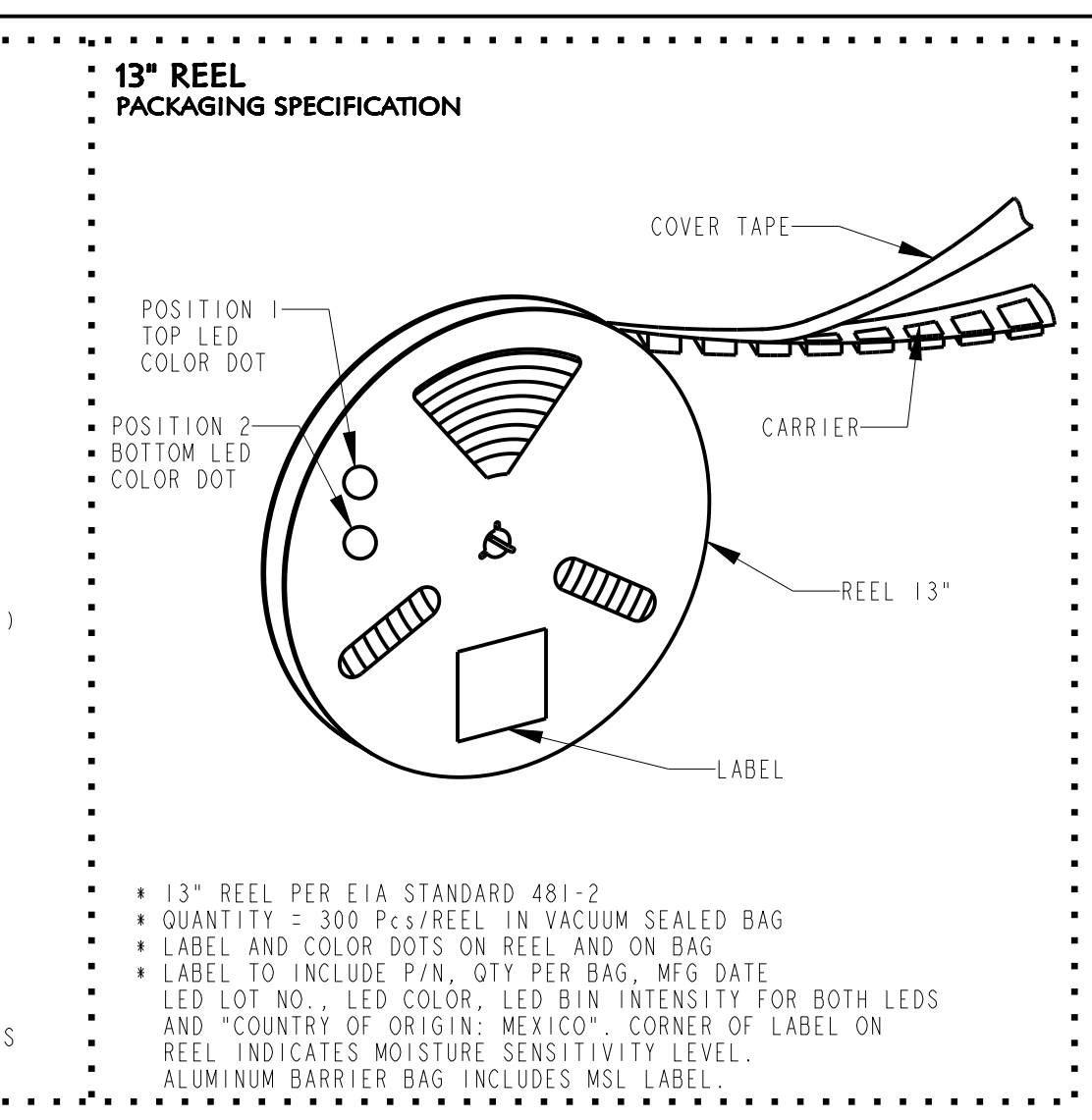
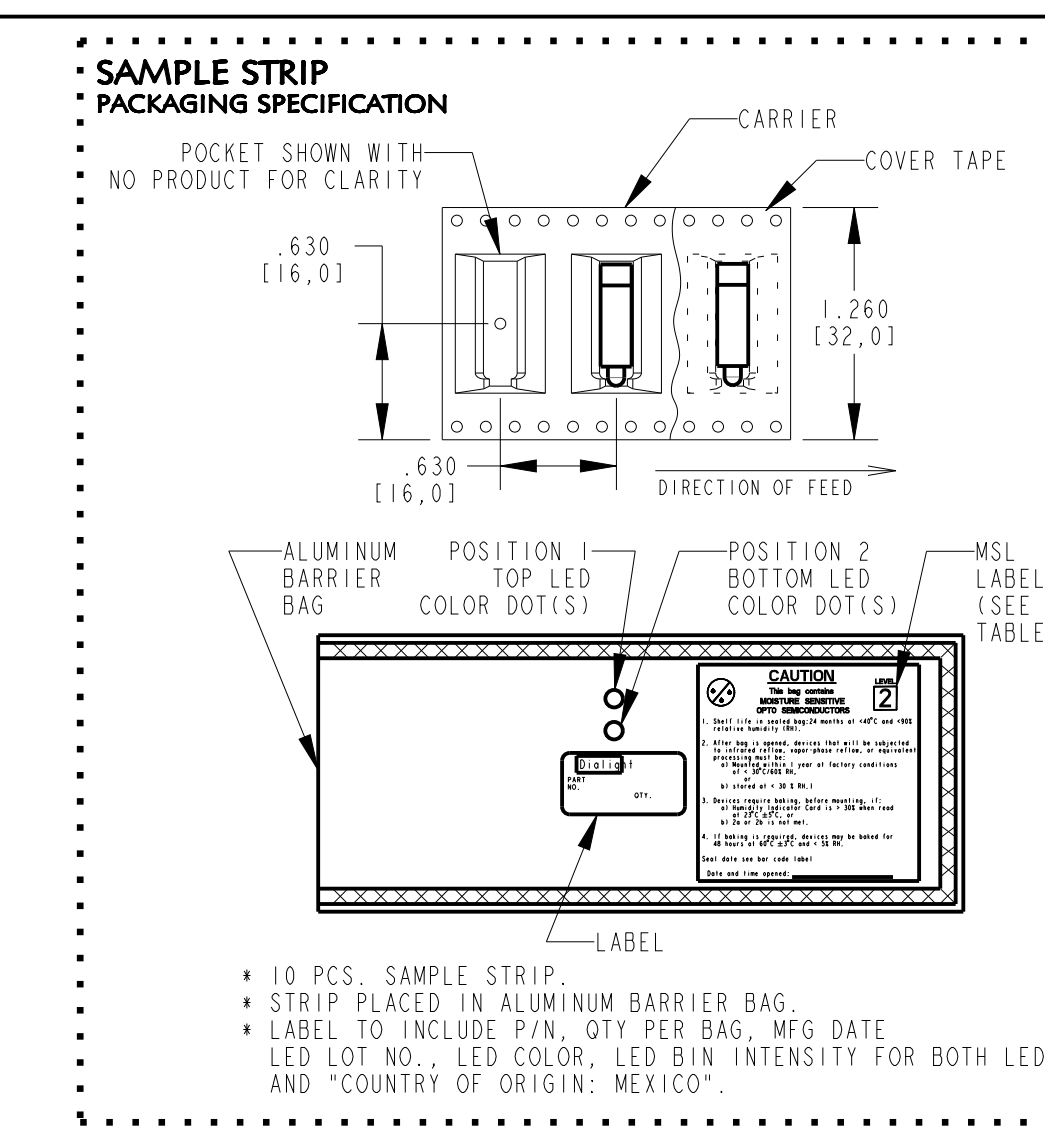


DIALIGHT PART NUMBER	PACKAGING	POSITION 1	POSITION 2	MSL
592-2020-302F	SAMPLE STRIP	RED (HI.EFF)	RED (HI.EFF)	2
592-2020-313F	13" REEL	RED (HI.EFF)	RED (HI.EFF)	2
592-2023-302F	SAMPLE STRIP	RED (HI.EFF)	GREEN	2
592-2023-313F	13" REEL	RED (HI.EFF)	GREEN	2
592-2121-302F	SAMPLE STRIP	RED (AlGaAs)	RED (AlGaAs)	2
592-2121-313F	13" REEL	RED (AlGaAs)	RED (AlGaAs)	2
592-2124-302F	SAMPLE STRIP	RED (AlGaAs)	YELLOW	2
592-2124-313F	13" REEL	RED (AlGaAs)	YELLOW	2
592-2126-302F	SAMPLE STRIP	RED (AlGaAs)	BLUE (InGaN)	2
592-2126-313F	13" REEL	RED (AlGaAs)	BLUE (InGaN)	2
592-2222-302F	SAMPLE STRIP	GREEN (HI.INT)	GREEN (HI.INT)	2
592-2222-313F	13" REEL	GREEN (HI.INT)	GREEN (HI.INT)	2
592-2320-302F	SAMPLE STRIP	GREEN (HI.EFF)	RED (HI.EFF)	2
592-2320-313F	13" REEL	GREEN (HI.EFF)	RED (HI.EFF)	2
592-2323-302F	SAMPLE STRIP	GREEN	GREEN	2
592-2323-313F	13" REEL	GREEN	GREEN	2
592-2324-302F	SAMPLE STRIP	GREEN	YELLOW	2
592-2324-313F	13" REEL	GREEN	YELLOW	2
592-2326-302F	SAMPLE STRIP	GREEN	BLUE (InGaN)	2
592-2326-313F	13" REEL	GREEN	BLUE (InGaN)	2
592-2420-302F	SAMPLE STRIP	YELLOW	RED (HI.EFF)	2
592-2420-313F	13" REEL	YELLOW	RED (HI.EFF)	2
592-2422-302F	SAMPLE STRIP	YELLOW	GREEN (HI.INT)	2
592-2422-313F	13" REEL	YELLOW	GREEN (HI.INT)	2
592-2423-302F	SAMPLE STRIP	YELLOW	GREEN	2
592-2423-313F	13" REEL	YELLOW	GREEN	2
592-2424-302F	SAMPLE STRIP	YELLOW	YELLOW	2
592-2424-313F	13" REEL	YELLOW	YELLOW	2
592-2436-302F	SAMPLE STRIP	YELLOW	ORANGE/GREEN	2
592-2436-313F	13" REEL	YELLOW	ORANGE/GREEN	2
592-2525-302F	SAMPLE STRIP	ORANGE	ORANGE	2
592-2525-313F	13" REEL	ORANGE	ORANGE	2
592-2626-302F	SAMPLE STRIP	BLUE (InGaN)	BLUE (InGaN)	2
592-2626-313F	13" REEL	BLUE (InGaN)	BLUE (InGaN)	2
592-2627-302F	SAMPLE STRIP	BLUE (InGaN)	YELLOW	2
592-2627-313F	13" REEL	BLUE (InGaN)	YELLOW	2
592-2628-302F	SAMPLE STRIP	BLUE (InGaN)	WHITE	2
592-2628-313F	13" REEL	BLUE (InGaN)	WHITE	2
592-2631-302F	SAMPLE STRIP	BLUE (InGaN)	YELLOW/GREEN	2
592-2631-313F	13" REEL	BLUE (InGaN)	YELLOW/GREEN	2
592-2727-302F	SAMPLE STRIP	YELLOW (AlInGaP)	YELLOW (AlInGaP)	2
592-2727-313F	13" REEL	YELLOW (AlInGaP)	YELLOW (AlInGaP)	2
592-2729-302F	SAMPLE STRIP	YELLOW (AlInGaP)	GREEN (InGaN)	2a
592-2729-313F	13" REEL	YELLOW (AlInGaP)	GREEN (InGaN)	2a
592-2826-302F	SAMPLE STRIP	WHITE	BLUE (InGaN)	2
592-2826-313F	13" REEL	WHITE	BLUE (InGaN)	2
592-2828-302F	SAMPLE STRIP	WHITE	WHITE	2
592-2828-313F	13" REEL	WHITE	WHITE	2
592-2926-302F	SAMPLE STRIP	TRUE GREEN (InGaN)	BLUE (InGaN)	2a
592-2926-313F	13" REEL	TRUE GREEN (InGaN)	BLUE (InGaN)	2a
592-2927-302F	SAMPLE STRIP	GREEN (InGaN)	YELLOW (AlInGaP)	2a
592-2927-313F	13" REEL	GREEN (InGaN)	YELLOW (AlInGaP)	2a
592-3024-302F	SAMPLE STRIP	RED/GREEN	YELLOW	2
592-3024-313F	13" REEL	RED/GREEN	YELLOW	2
592-3030-302F	SAMPLE STRIP	RED/GREEN	RED/GREEN	2
592-3030-313F	13" REEL	RED/GREEN	RED/GREEN	2
592-3031-302F	SAMPLE STRIP	RED/GREEN	YELLOW/GREEN	2
592-3031-313F	13" REEL	RED/GREEN	YELLOW/GREEN	2
592-3034-302F	SAMPLE STRIP	RED/GREEN	RED/BLUE	2a
592-3034-313F	13" REEL	RED/GREEN	RED/BLUE	2a
592-3126-302F	SAMPLE STRIP	YELLOW/GREEN	BLUE (InGaN)	2
592-3126-313F	13" REEL	YELLOW/GREEN	BLUE (InGaN)	2
592-3131-302F	SAMPLE STRIP	YELLOW/GREEN	YELLOW/GREEN	2
592-3131-313F	13" REEL	YELLOW/GREEN	YELLOW/GREEN	2
592-3232-302F	SAMPLE STRIP	RED/YELLOW	RED/YELLOW	2
592-3232-313F	13" REEL	RED/YELLOW	RED/YELLOW	2
592-3236-302F	SAMPLE STRIP	RED/YELLOW	ORANGE/GREEN	2
592-3236-313F	13" REEL	RED/YELLOW	ORANGE/GREEN	2
592-3535-302F	SAMPLE STRIP	RED/GRN/BLUE	RED/GRN/BLUE	2a
592-3535-313F	13" REEL	RED/GRN/BLUE	RED/GRN/BLUE	2a



#	COLOR	DESCRIPTION	LUMINOUS INTENSITY (mcd)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			PEAK WAVELENGTH (nm)	FORWARD VOLTAGE (V)		REVERSE CURRENT (μA)
					MIN	TYP	MAX		TYP	MAX	
20	RED	[HI.EFF]	3	10	622	628	634	635	2.0	2.5	10 @ V _F =12 V
21	RED	[AlGaAs]	9	10	—	645	—	660	1.75	2.5	10 @ V _F =12 V
22	GREEN	[HI.INT]	6	10	564	570	576	572	2.0	2.5	10 @ V _F =12 V
23	GREEN	[HI.INT]	4	10	564	570	576	572	2.0	2.5	10 @ V _F =12 V
24	YELLOW	[HI.INT]	2	10	580	587	595	586	2.0	2.5	10 @ V _F =5 V
25	ORANGE	[HI.INT]	2	10	600	606	609	610	2.0	2.5	10 @ V _F =5 V
26	BLUE	[InGaN]	6	10	462	465	468	428	3.5	4.1	10 @ V _F =12 V
27	YELLOW	[AlInGaP]	60	20	580	587	595	591	2.0	2.4	10 @ V _F =12 V
28	WHITE	[HI.INT]	34	10	X: .285; Y: .259	.33; .367	.33; .401	—	3.1	3.7	10 @ V _F =5 V
29	GREEN	[InGaN]	56	20	—	525	—	523	3.7	4.3	10 @ V _F =12 V



POCKET SHOWN WITH NO PRODUCT FOR CLARITY

ALUMINUM BARRIER BAG

POSITION 1 TOP LED COLOR DOT(S)

POSITION 2 BOTTOM LED COLOR DOT(S)

MSL LABEL (SEE TABLE)

10 PCS. SAMPLE STRIP

STRIP PLACED IN ALUMINUM BARRIER BAG

LABEL TO INCLUDE P/N, QTY PER BAG, MFG DATE, LED LOT NO., LED COLOR, LED BIN INTENSITY FOR BOTH LEADS AND 'COUNTRY OF ORIGIN: MEXICO'.

13" REEL PER EIA STANDARD 481-2

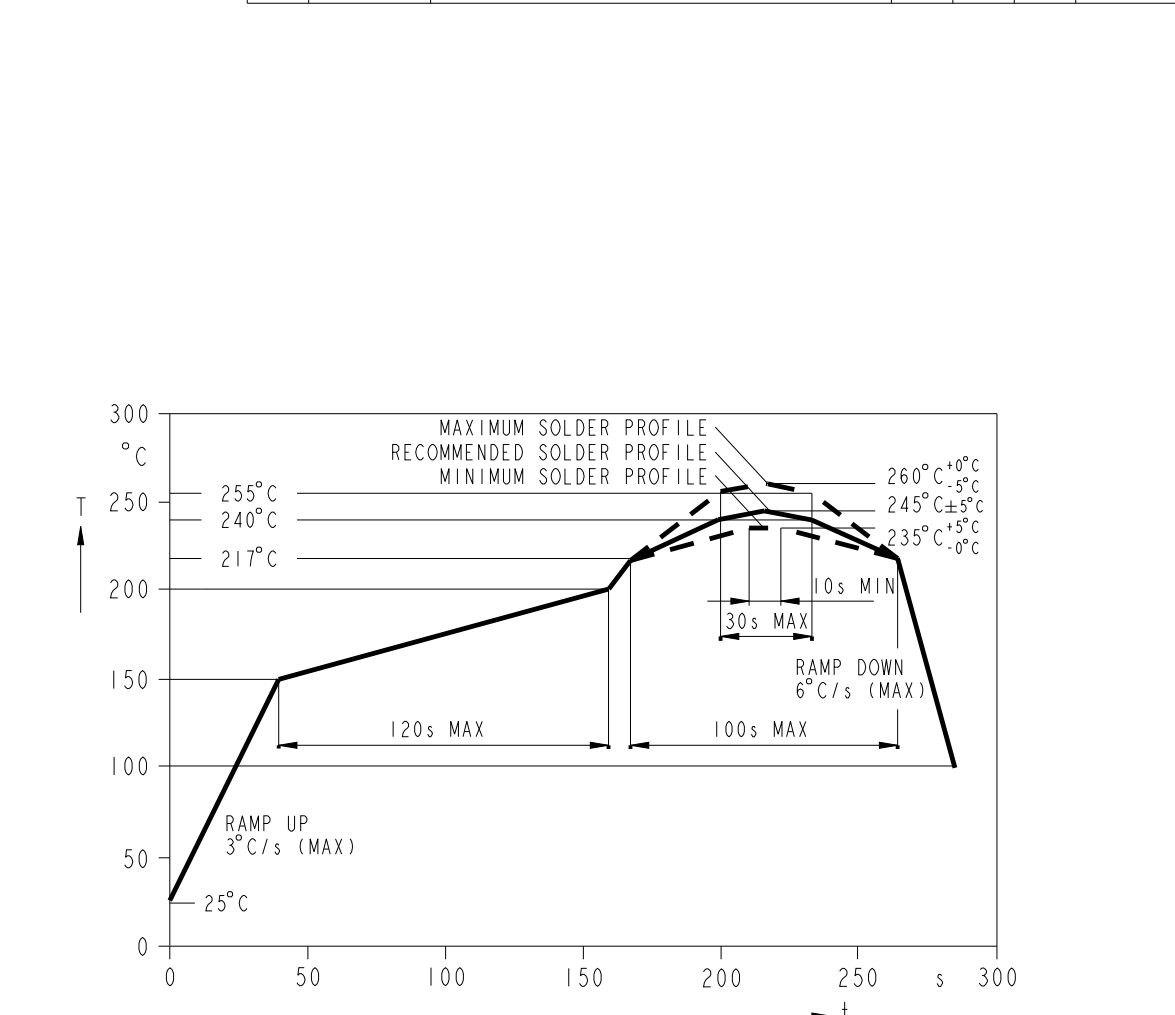
QUANTITY = 300 Pcs/REEL IN VACUUM SEALED BAG

LABEL AND COLOR DOTS ON REEL AND ON BAG

LABEL TO INCLUDE P/N, QTY PER BAG, MFG DATE, LED LOT NO., LED COLOR, LED BIN INTENSITY FOR BOTH LEADS AND 'COUNTRY OF ORIGIN: MEXICO'. CORNER OF LABEL ON REEL INDICATES MOISTURE SENSITIVITY LEVEL.

ALUMINUM BARRIER BAG INCLUDES MSL LABEL

REV	ECN NO	REVISIONS	DRN	CKD	APP	DATE
A	—	NEW RELEASE	JTD	KLJ	NO	12-14-11
B	—	CORRECT LED POSITION	JTD	KLJ	NO	1-10-12
C	—	NOTE 8 ADDED	WFB	JTD	NO	6-11-12
D	—	ADDED P/N'S 592-3024-302F, -313F	MMB	WFB	JTD	5-28-13
E	—	CHANGED MSL VALUE OF P/N 5923535302/313 TO 2a	VP	WFB	NO	6-9-15
F	—	UPDATED DOCUMENT TO SHOW DIRECTION OF CBI IN A TAPE	VP	JTD	NO	4-8-16
G	—	ADDED P/N'S 592-2729-302F, 313F. ALSO UPDATED LED SPECS FOR R/G AND Y/G BI-COLOR LED'S	BP	—	NO	8-11-17



#30 & #31	LED COLOR	OPERATING CHARACTERISTICS AT 25°C AMBIENT									
		LUMINOUS INTENSITY (mcd)		FORWARD VOLTAGE (V)		REVERSE CURRENT (μA)		DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)	
		MIN	TYP	MAX	TYP	MAX	TYP	MAX	TYP	MAX	
RED	—	11	—	1.8	2.2	0.01	10	624	630	636	643
GREEN	—	5	—	1.8	2.2	0.01	10	566	570	575	572
YELLOW	—	14	—	1.8	2.2	0.01	10	580	587	595	591
GREEN	—	5	—	1.8	2.2	0.01	10	566	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
REVERSE VOLTAGE	—	12	V
SURGE CURRENT	—	100	mA
PEAK SOLDERING TEMPERATURE	—	245	°C
OPERATING TEMPERATURE	-40 TO +100	—	°C
STORAGE TEMPERATURE	-40 TO +100	—	°C

#32	COLOR	OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/YELLOW BI-COLOR LED								
		LUMINOUS INTENSITY (mcd)		TEST CURRENT (mA)		DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		TYP	MAX	MIN	TYP	MAX	TYP	MAX	TYP	MAX
RED	21	20	627	633	639	645	2.0	2.3		
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
PEAK FORWARD CURRENT (1/10 DUTY CYCLE, 10μs PULSE WIDTH)	1000	200	mA
CONTINUOUS FORWARD CURRENT	30	30	mA
LINEAR DERATING FROM 75°C	0.60	0.60	mA/°C
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)	260	—	°C
OPERATING TEMPERATURE	-40 TO +100	—	°C
STORAGE TEMPERATURE	-40 TO +100	—	°C

#34	COLOR	OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/BLUE BI-COLOR LED								
		LUMINOUS INTENSITY (mcd)		TEST CURRENT (mA)		DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		TYP	MAX	MIN	TYP	MAX	TYP	MAX	TYP	MAX
RED	21	10	620	625	630	—	1.9	2.2		
BLUE	24	10	465	467	470	—	3.0	3.2		

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - RED/BLUE BI-COLOR LED	RED	BLUE	UNITS
	POWER DISSIPATION	100	—
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

#35	COLOR	OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/GRN/BLUE TRI-COLOR LED								
		LUMINOUS INTENSITY (mcd)		TEST CURRENT (mA)		DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		TYP	MAX	MIN	TYP	MAX	TYP	MAX	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
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

#36	COLOR	OPERATING CHARACTERISTICS AT 25°C AMBIENT - ORANGE/GREEN BI-COLOR LED								
		LUMINOUS INTENSITY (mcd)		TEST CURRENT (mA)		DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		TYP	MAX	MIN	TYP	MAX	TYP	MAX	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
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

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - SINGLE COLOR LEDs	RED (HI.EFF)	RED (AlGaAs)	GREEN	GREEN (HI.INT)	YELLOW	YELLOW (AlInGaP)	ORANGE	WHITE	BLUE (InGaN)	GREEN (InGaN)	UNITS
	POWER DISSIPATION	95	90	95	95	95	80	95	80	100	114
PEAK FORWARD CURRENT (1/200 DUTY CYCLE, 10μs PULSE WIDTH)	500	500	500	500	500	200	500	200	200	200	mA
CONTINUOUS FORWARD CURRENT	30	30	30	30	30	30	30	20	20	30	mA
LINEAR DERATING FROM 60°C, UNLESS OTHERWISE NOTED	0.75	0.75	0.75	0.75	0.75	1.0 (FROM 85°C)	0.75	0.60 (FROM 75°C)	0.44 (FROM 55°C)	0.42 (FROM 40°C)	mA/°C
REVERSE VOLTAGE	12	5	12	12	5	12	5	5	5	5	V
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)	260	—	—	—	—	—	—	—	—	—	°C
OPERATING TEMPERATURE	-40 TO +100	—	—	—	—	—	—	—	—	—	°C
STORAGE TEMPERATURE	-40 TO +100	—	—	—	—	—	—	—	—	—	°C

RECOMMENDED ROHS COMPLIANT REFLOW PROFILE

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