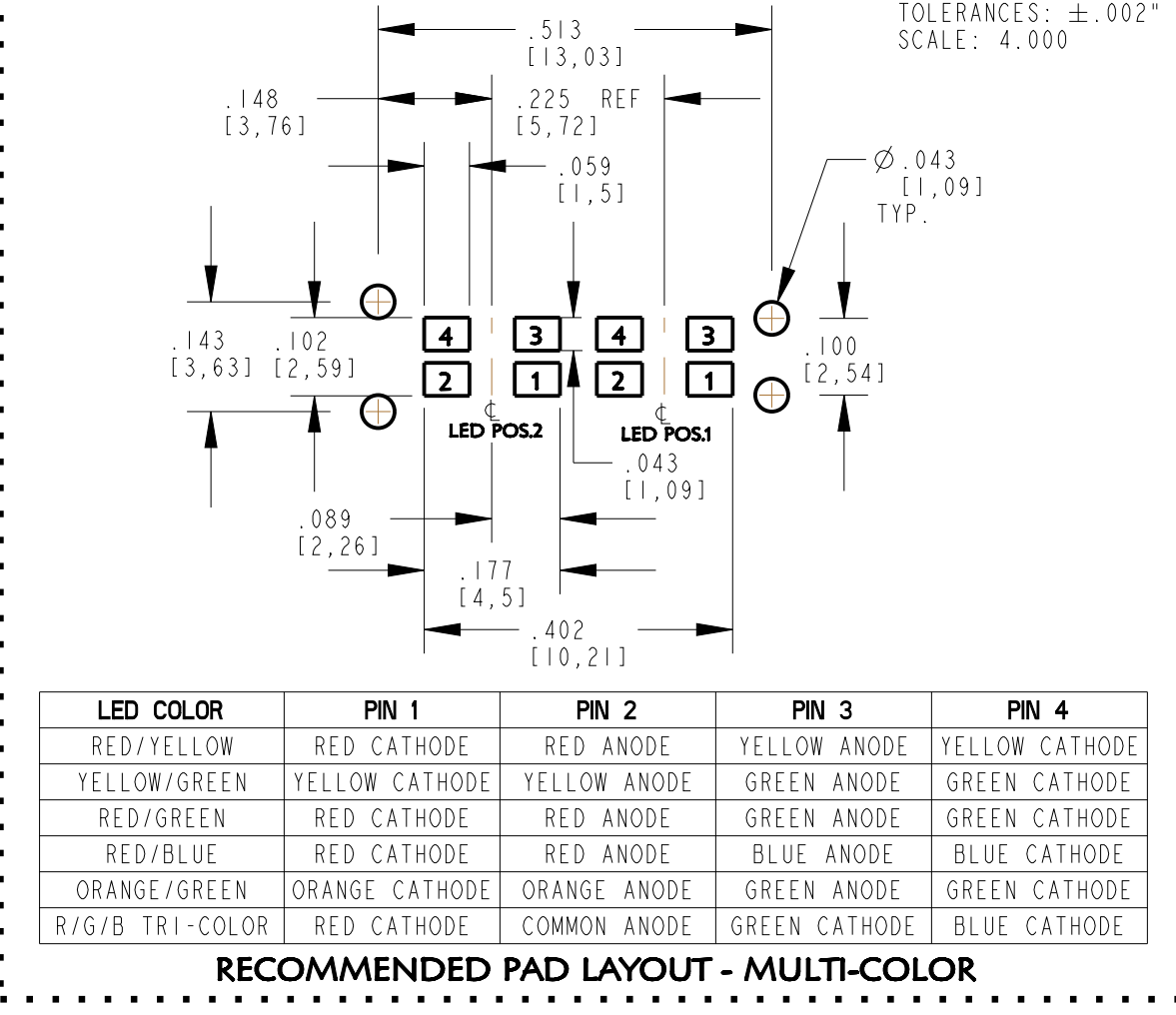
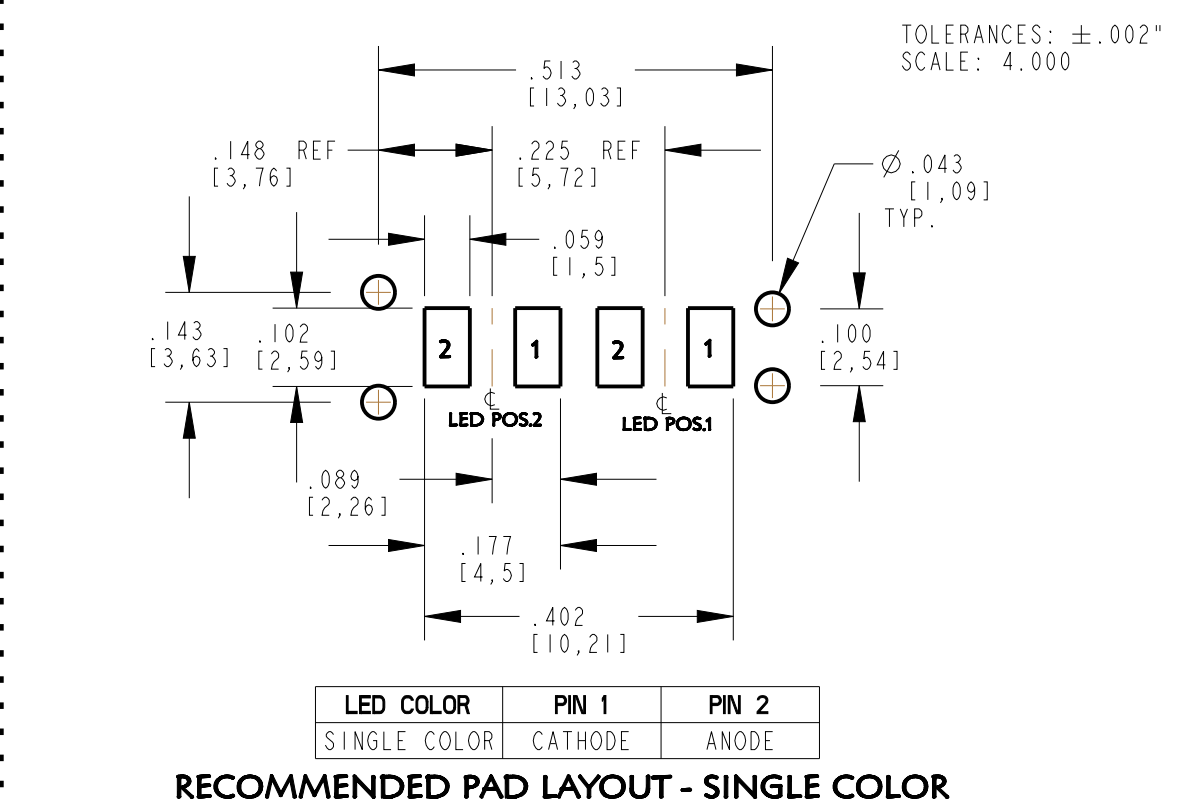
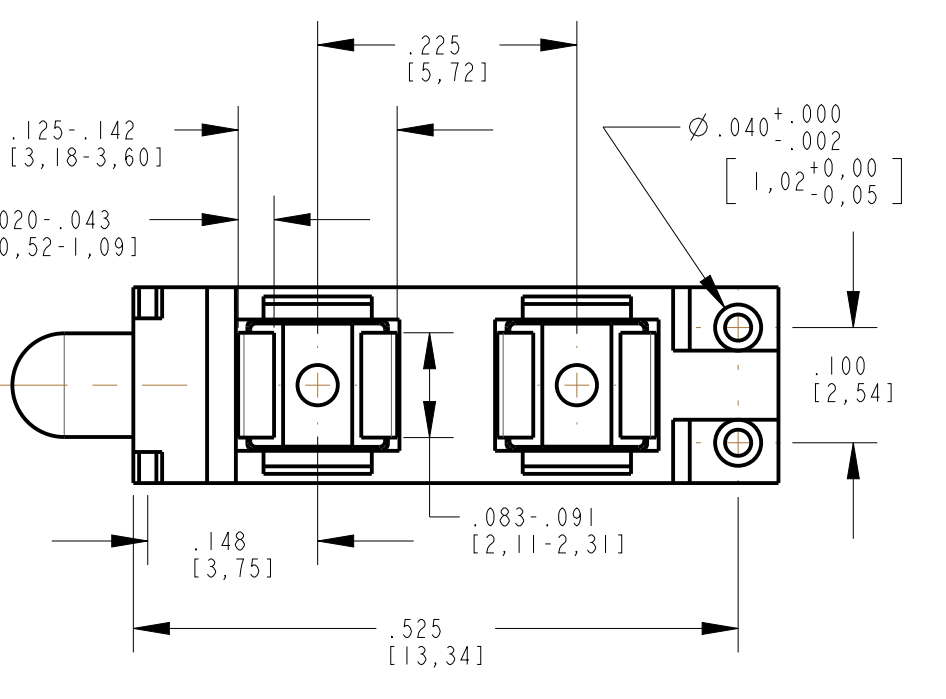
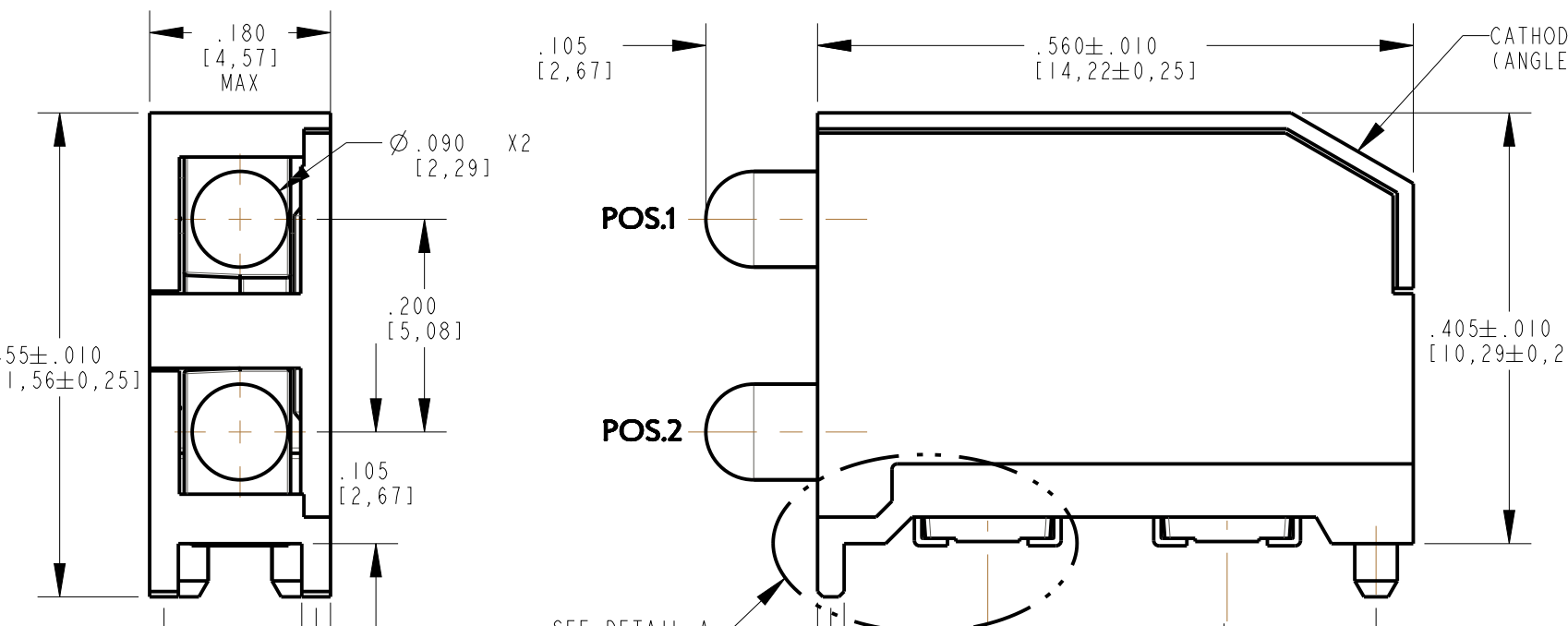
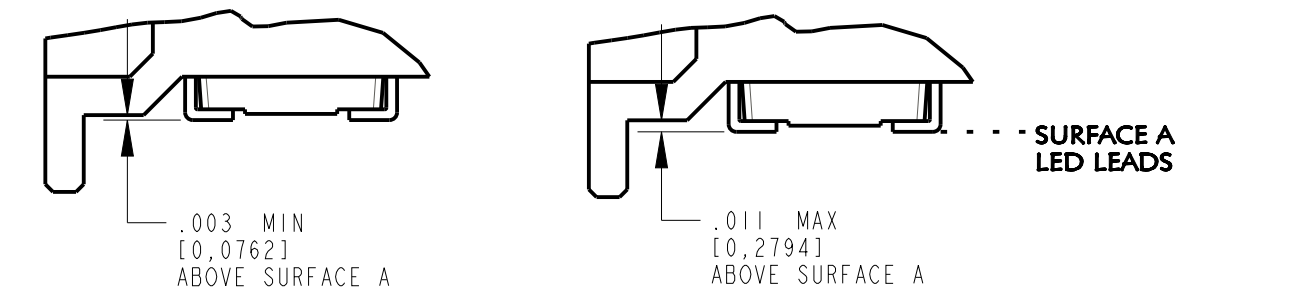
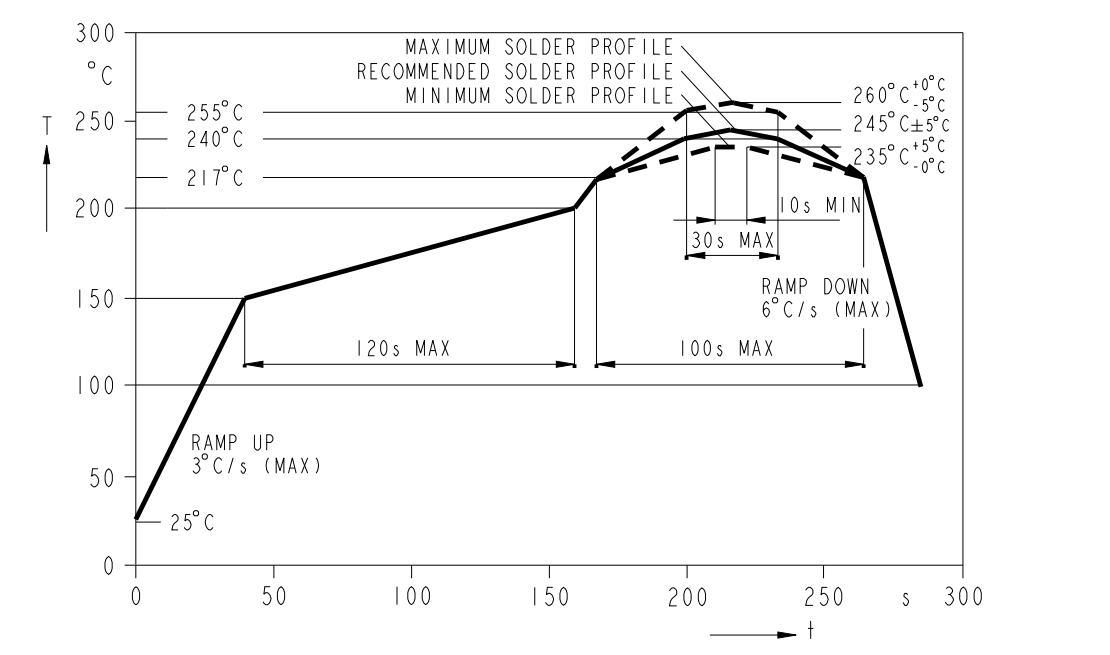
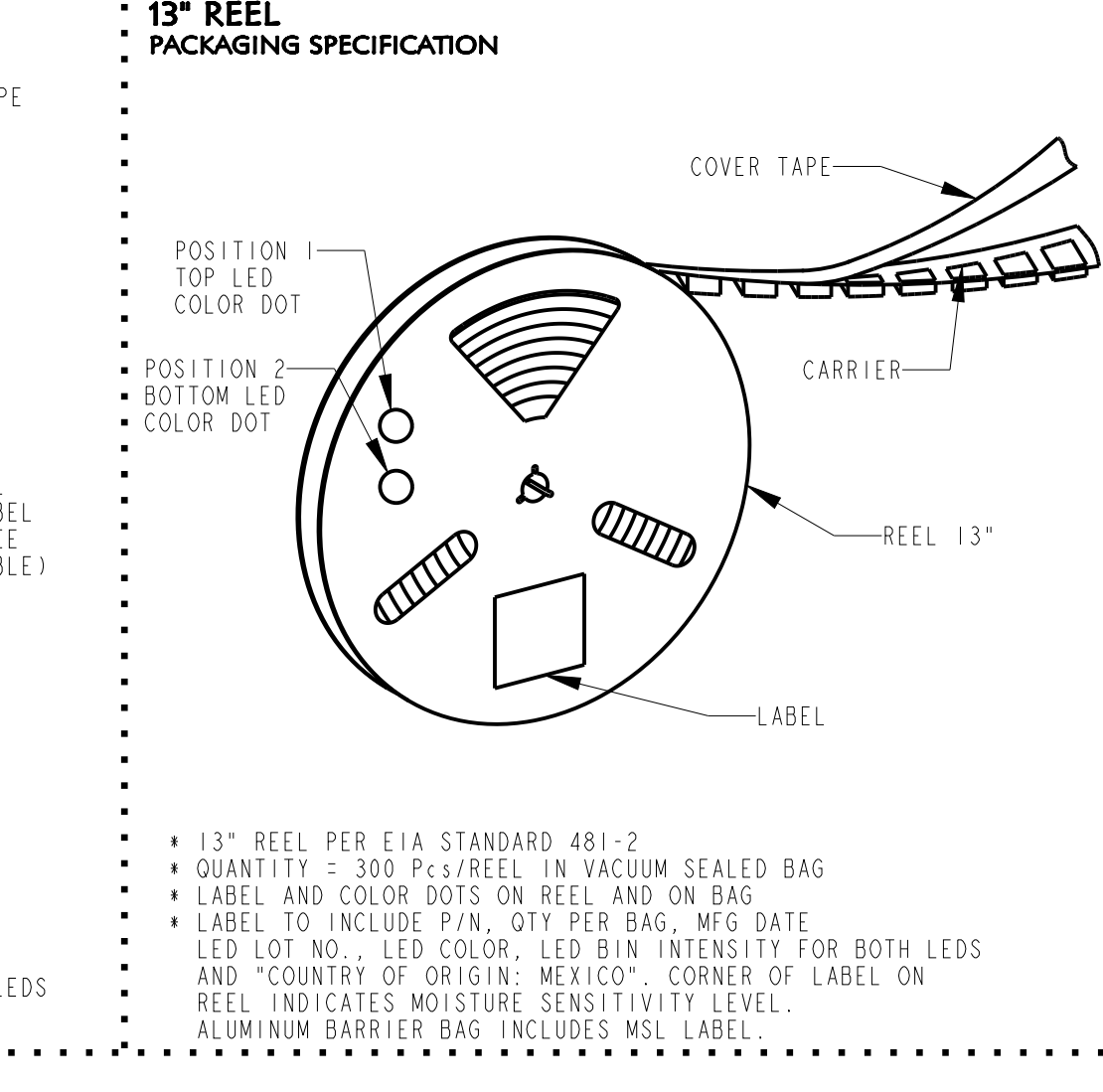
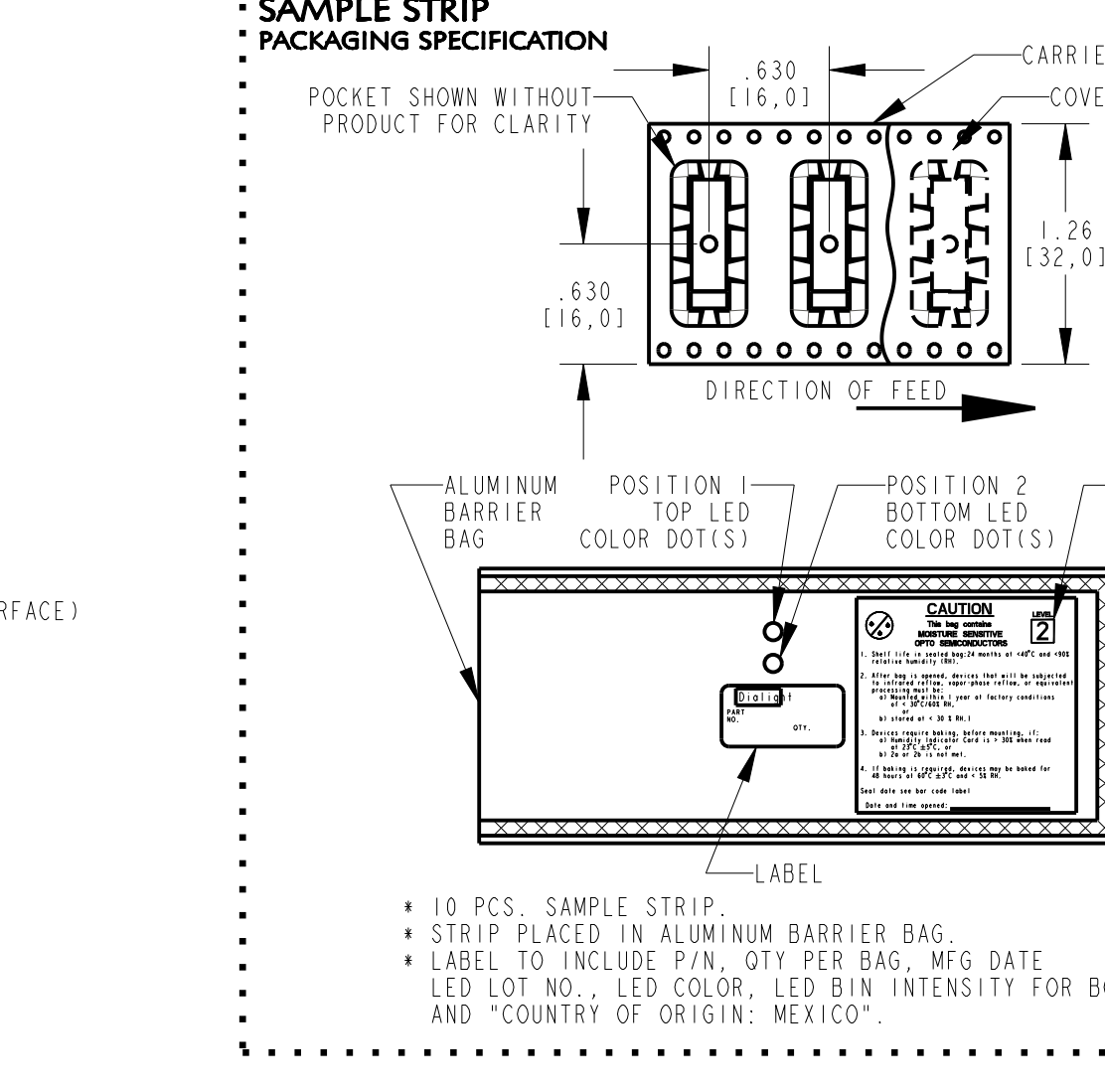


REV	ECN NO	REVISIONS	DRN	CKD	APP	DATE
A		NEW RELEASE	JTD	KLJ	NO	12-14-11
B		CORRECT LED POSITION	JTD	KLJ	NO	11-10-12

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



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



OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/GREEN BI-COLOR LED								
#30	COLOR	LUMINOUS INTENSITY (mc d)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			FORWARD VOLTAGE (V)	
				MIN	TYP	MAX	TYP	MAX
RED	3	10	622	628	634	635	2.0	2.5
GREEN	4	10	564	570	576	572	2.0	2.5

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - RED/GREEN BI-COLOR LED			
PARAMETER	RED	GREEN	
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

OPERATING CHARACTERISTICS AT 25°C AMBIENT - YELLOW/GREEN BI-COLOR LED								
#31	COLOR	LUMINOUS INTENSITY (mc d)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			FORWARD VOLTAGE (V)	
				MIN	TYP	MAX	TYP	MAX
YELLOW	2	10	584	590	596	587	2.0	2.5
GREEN	3	10	564	570	576	572	2.0	2.5

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - YELLOW/GREEN BI-COLOR LED			
PARAMETER	YELLOW	GREEN	
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

OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/YELLOW BI-COLOR LED								
#32	COLOR	LUMINOUS INTENSITY (mc d)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			FORWARD VOLTAGE (V)	
				MIN	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			
PARAMETER	RED	YELLOW	
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	0.60	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

OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/BLUE BI-COLOR LED								
#34	COLOR	LUMINOUS INTENSITY (mc d)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			FORWARD VOLTAGE (V)	
				MIN	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			
PARAMETER	RED	BLUE	
POWER DISSIPATION	100		mW
PEAK FORWARD CURRENT (1/10 DUTY CYCLE, 10ms PULSE WIDTH)	30	20	mA
CONTINUOUS FORWARD CURRENT	30	30	mA
LINEAR DERATING FROM 80°C	1.0	0.50	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/BLUE TRI-COLOR LED								
#35	COLOR	LUMINOUS INTENSITY (mc d)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			FORWARD VOLTAGE (V)	
				MIN	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				
PARAMETER	RED	GREEN	BLUE	
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 BI-COLOR LED								
#36	COLOR	LUMINOUS INTENSITY (mc d)	TEST CURRENT (mA)	DOMINANT WAVELENGTH (nm)			FORWARD VOLTAGE (V)	
				MIN	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			
PARAMETER	ORANGE	GREEN	
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

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - SINGLE COLOR LEDs										
PARAMETER	RED [HI.EFF]	RED [AIGaAs]	GREEN [HI.INT]	YELLOW [HI.INT]	YELLOW [AlInGaP]	ORANGE	WHITE	BLUE [InGaN]	GREEN [InGaN]	UNITS
POWER DISSIPATION	95	90	95	95	80	95	80	100	114	mW
PEAK FORWARD CURRENT (1/200 DUTY CYCLE, 10μs PULSE WIDTH)	500	500	500	500	500	200	500	200	200	mA
CONTINUOUS FORWARD CURRENT	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)	0.42 (FROM 40°C)	mA/°C
REVERSE VOLTAGE	12	5	12	12	5	12	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

- NOTES:
- DIALIGHT PART NUMBERS: 592-XXXX-XXXF.
  - ...-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.

