

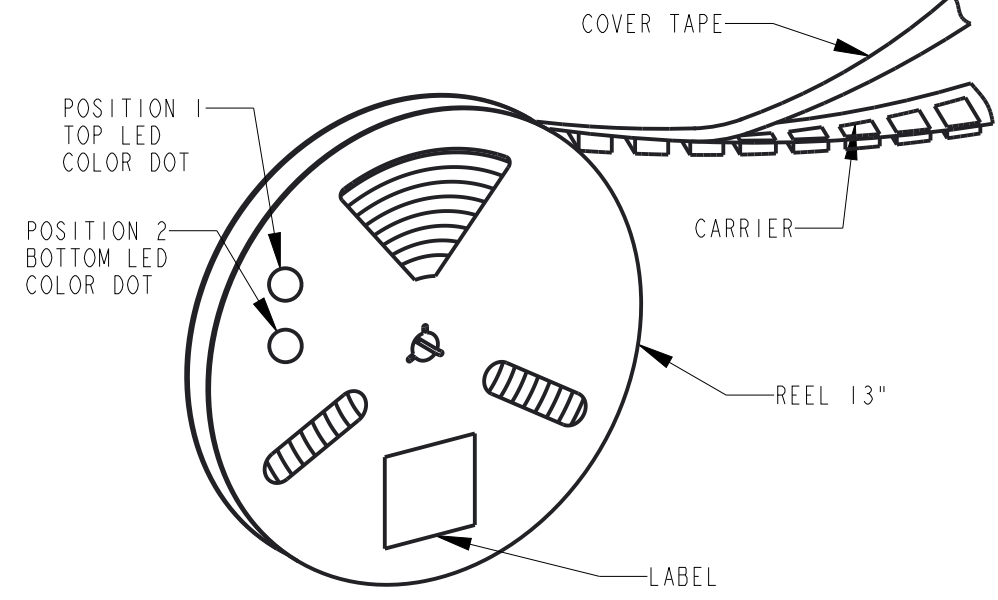
DIALIGHT PART NUMBER	PACKAGING	POSITION 1	POSITION 2
592-1010-313F	13" REEL	RED [2mA]	RED [2mA]
592-1313-313F	13" REEL	GREEN [2mA]	GREEN [2mA]
592-1314-313F	13" REEL	GREEN [2mA]	YELLOW [2mA]
592-1410-313F	13" REEL	YELLOW [2mA]	RED [2mA]
592-1414-313F	13" REEL	YELLOW [2mA]	YELLOW [2mA]
592-1515-313F	13" REEL	ORANGE [2mA]	ORANGE [2mA]
592-2126-413F	13" REEL	RED [1mA]	BLUE [1mA]
592-2326-413F	13" REEL	GREEN [1mA]	BLUE [1mA]
592-2436-313F	13" REEL	YELLOW [1mA]	ORANGE/GREEN [1mA]
592-2626-413F	13" REEL	BLUE [1mA]	BLUE [1mA]
592-2627-413F	13" REEL	BLUE [1mA]	YELLOW [1mA]
592-2628-413F	13" REEL	BLUE [1mA]	WHITE [1mA]
592-2631-413F	13" REEL	BLUE [1mA]	YELLOW/GREEN [1mA]
592-2727-313F	13" REEL	YELLOW [1mA]	YELLOW [1mA]
592-2729-313F	13" REEL	YELLOW [1mA]	GREEN [1mA]
592-2826-413F	13" REEL	WHITE [1mA]	BLUE [1mA]
592-2828-413F	13" REEL	WHITE [1mA]	WHITE [1mA]
592-2927-313F	13" REEL	GREEN [1mA]	YELLOW [1mA]
592-2929-313F	13" REEL	GREEN [1mA]	GREEN [1mA]
592-3030-313F	13" REEL	RED/GREEN [1mA]	RED/GREEN [1mA]
592-3031-313F	13" REEL	RED/GREEN [1mA]	YELLOW/GREEN [1mA]
592-3032-313F	13" REEL	RED/GREEN [1mA]	RED/YELLOW [1mA]
592-3034-313F	13" REEL	RED/GREEN [1mA]	RED/BLUE [1mA]
592-3036-313F	13" REEL	RED/GREEN [1mA]	ORANGE/GREEN [1mA]
592-3131-313F	13" REEL	YELLOW/GREEN [1mA]	YELLOW/GREEN [1mA]
592-3232-313F	13" REEL	RED/YELLOW [1mA]	RED/YELLOW [1mA]
592-3236-313F	13" REEL	RED/YELLOW [1mA]	ORANGE/GREEN [1mA]
592-3333-313F	13" REEL	YEL/GREEN [1mA]	YEL/GREEN [1mA]
592-3530-313F	13" REEL	RED/GRN/BLUE [1mA]	RED/GREEN [1mA]
592-3531-313F	13" REEL	RED/GRN/BLUE [1mA]	YELLOW/GREEN [1mA]
592-3535-313F	13" REEL	RED/GRN/BLUE [1mA]	RED/GRN/BLUE [1mA]
592-3728-413F	13" REEL	RED/GRN/BLUE [1mA]	WHITE [1mA]
592-3733-313F	13" REEL	RED/GRN/BLUE [1mA]	YEL/GREEN [1mA]
592-4026-413F	13" REEL	TRUE GREEN [1mA]	BLUE [1mA]

RoHS COMPLIANT 592-XXXX-3XXF/4XXF

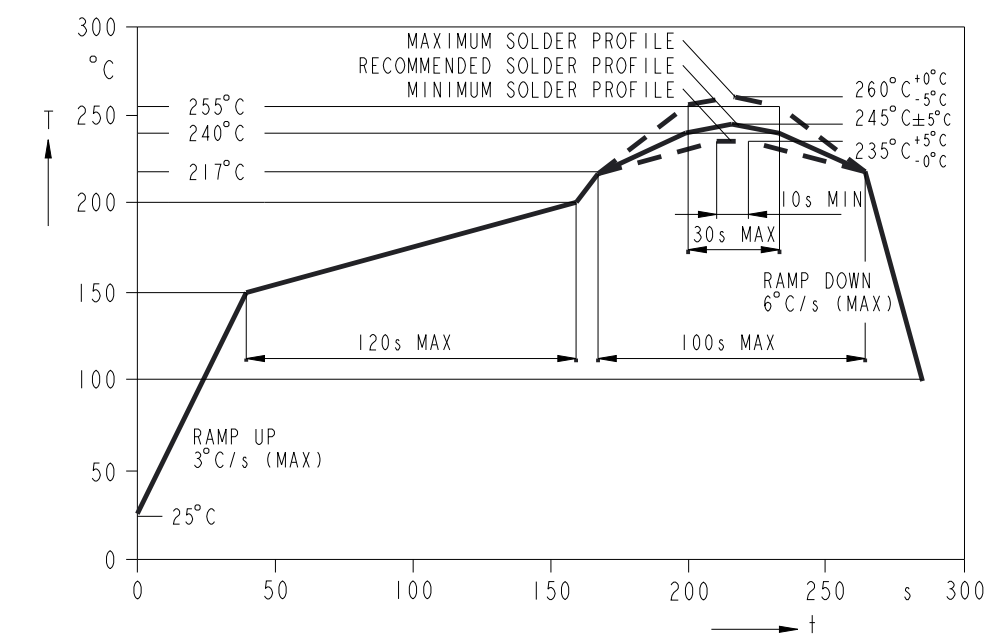
Part Numbers with the "F" suffix ending are RoHS Compliant.

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.

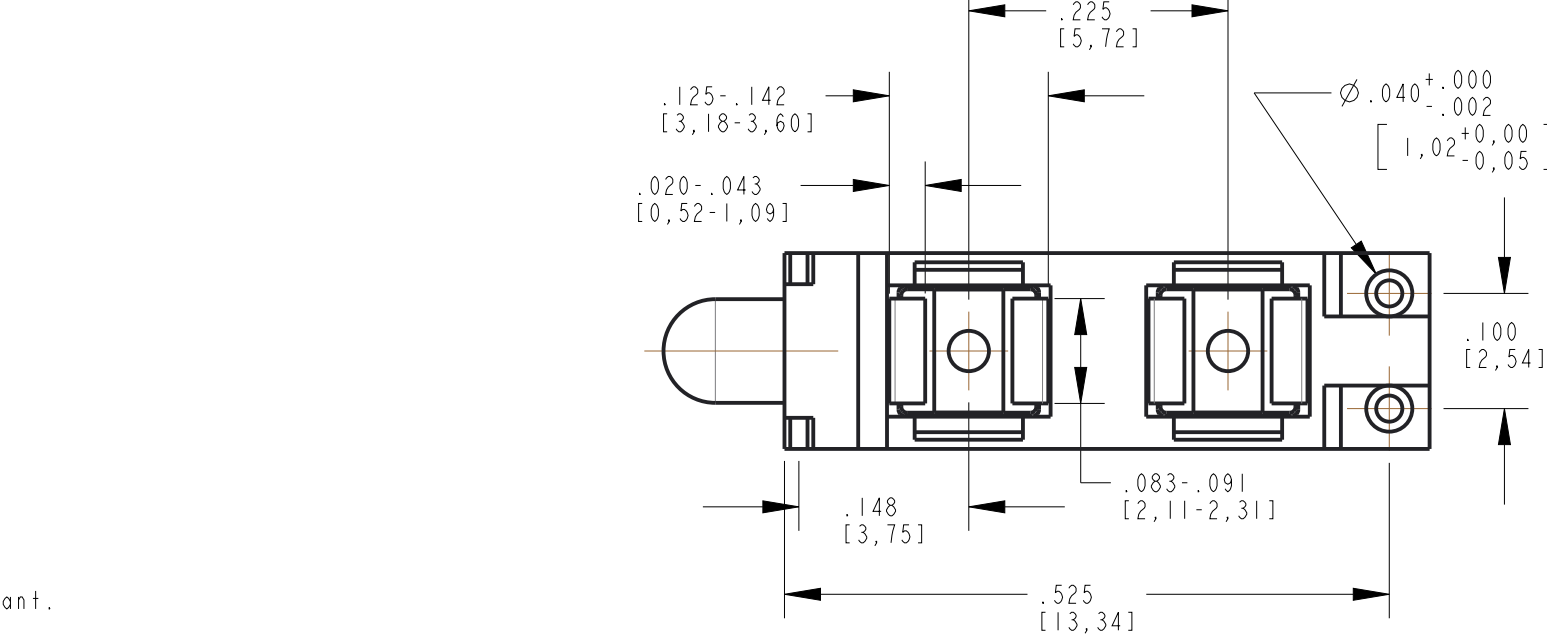
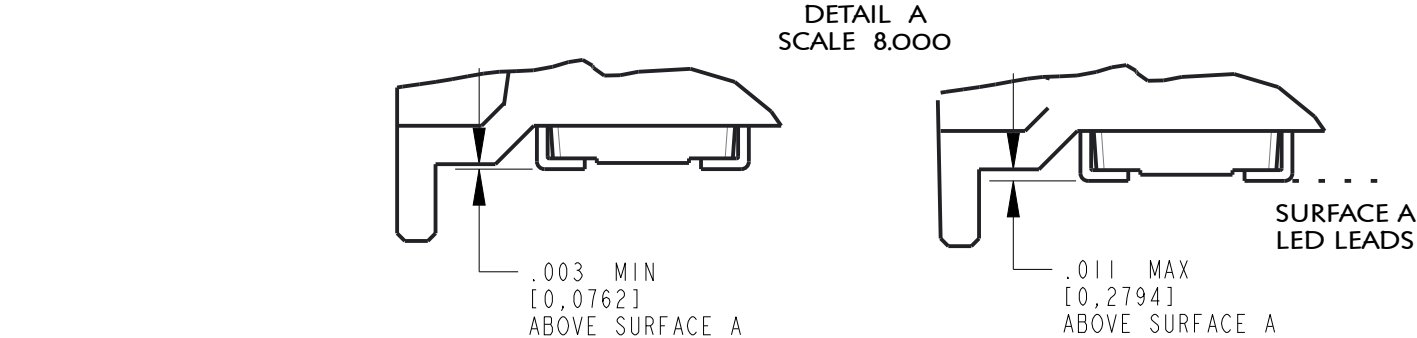
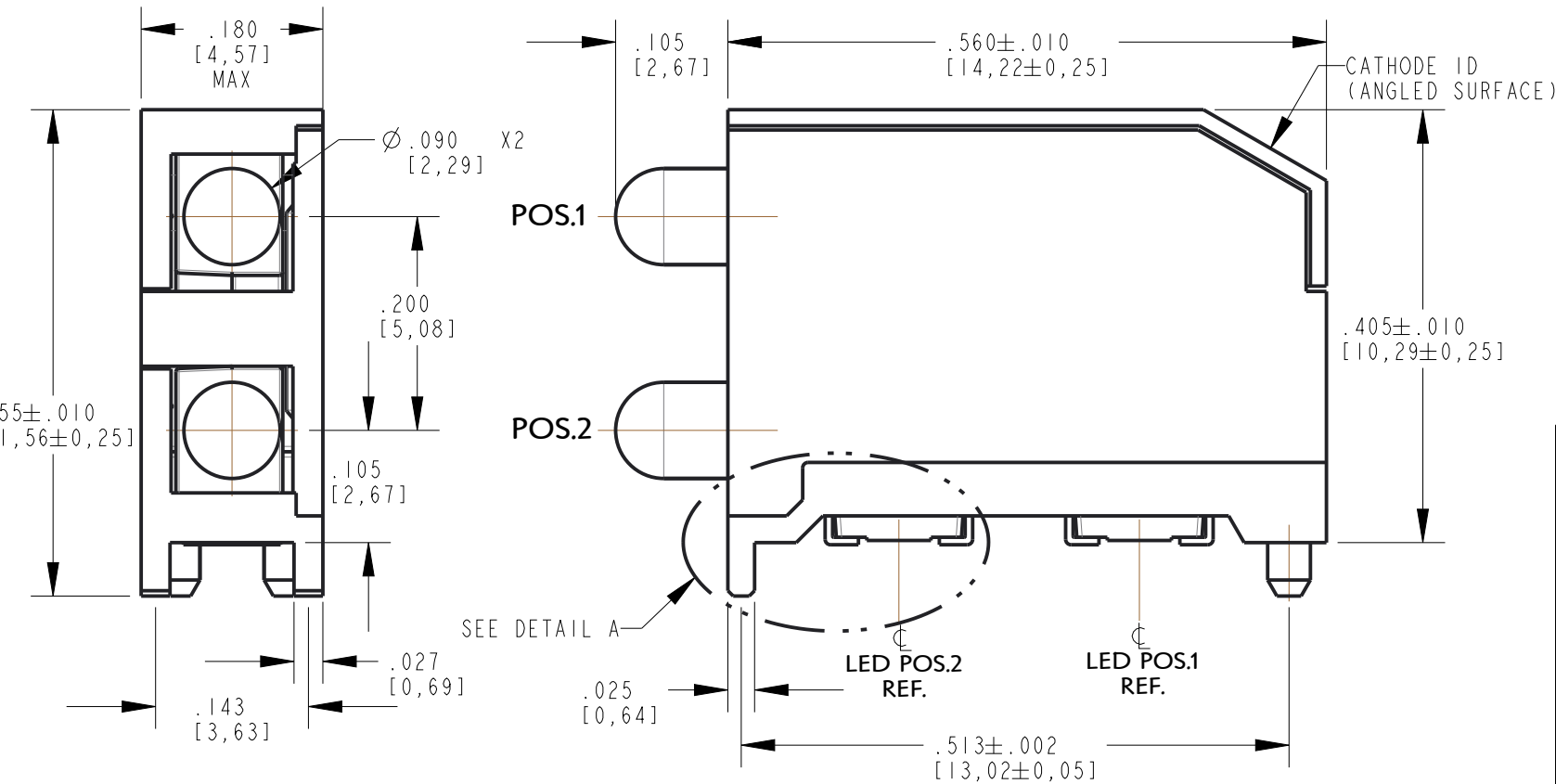
13" REEL PACKAGING SPECIFICATION



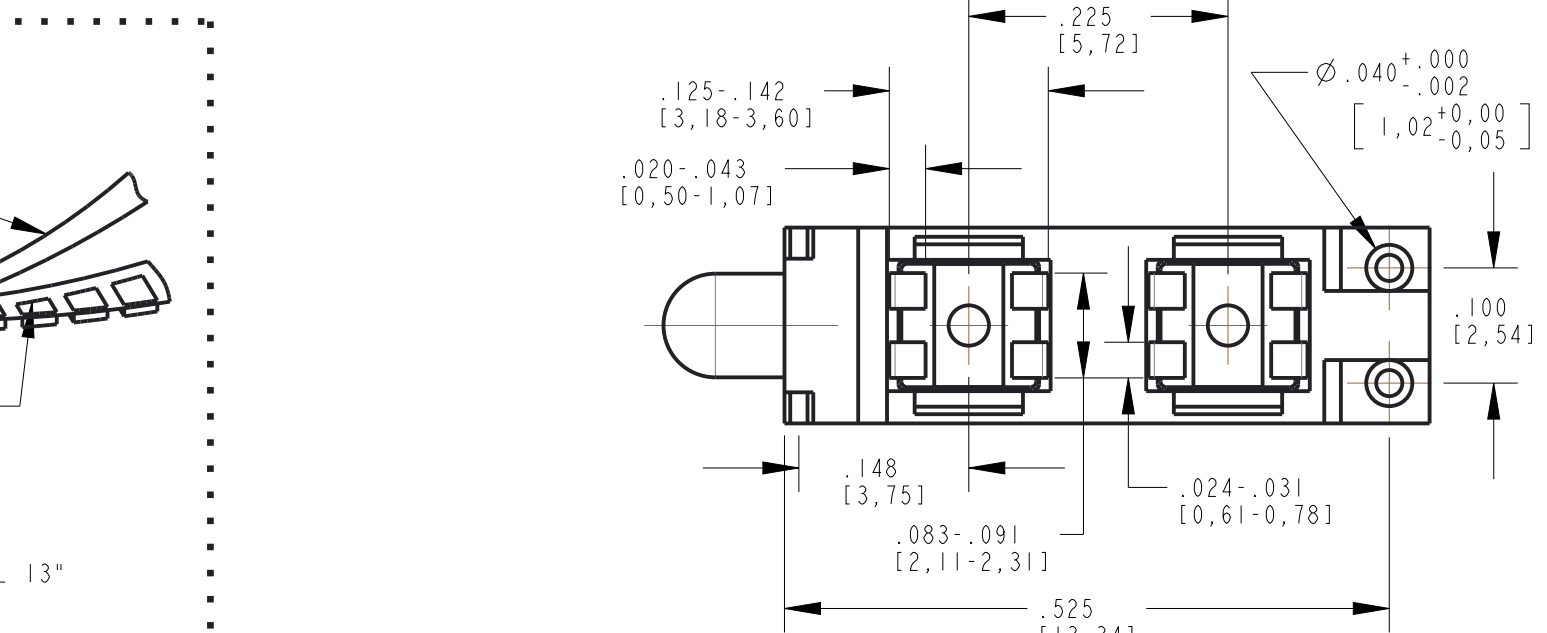
- 13" REEL PER EIA STANDARD 481-2
- QUANTITY = 300 Pcs/REEL IN VACUUM SEALED BAG
- LABEL AND COLOR DOTS ON REEL AND ON BAG
- LABEL TO INCLUDE P/N, QTY PER BAG, MFG DATE
- LED LOT NO., LED COLOR, LED BIN INTENSITY FOR BOTH LEDS AND "COUNTRY OF ORIGIN: MEXICO". CORNER OF LABEL ON REEL INDICATES MOISTURE SENSITIVITY LEVEL.
- ALUMINUM BARRIER BAG INCLUDES MSL LABEL.



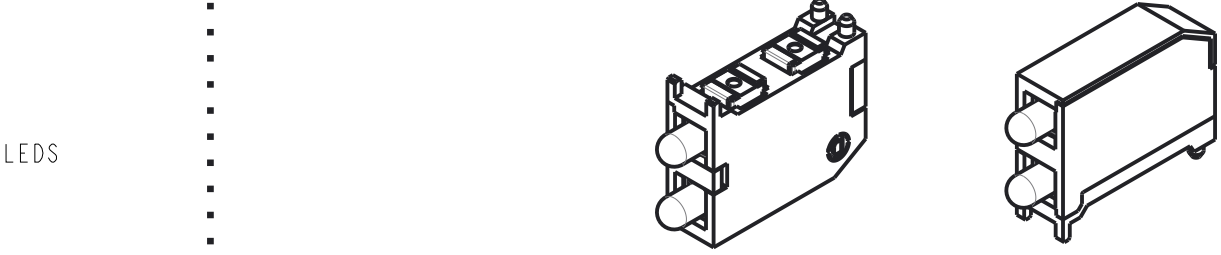
RECOMMENDED RoHS COMPLIANT REFLOW PROFILE



++SINGLE COLOR LED ASSEMBLY++



++BI-COLOR LED ASSEMBLY++



SCALE 2.000

NOTES :

- DIALIGHT PART NUMBERS: 592-XXXX-3XXF/4XXF.
- ...-313F/413F SUFFIX 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.
- 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 HOUSING: UL-94-VO SILICONE LENS AND LED: UL-94HB

OPERATING CHARACTERISTICS AT 25°C AMBIENT - SINGLE COLOR LEDs									
#	DESCRIPTION	LUMINOUS INTENSITY (mcd)		DOMINANT WAVELENGTH (nm)			PEAK WAVELENGTH (nm)		REVERSE CURRENT (μA)
		2mA	10mA	MIN	TYP	MAX	TYP	MAX	
10	RED	3.8	9.8	624	630	636	643	1.8 2.2	10 @ V _F =12 V
13	GREEN	3.2	10.1	566	570	575	572	1.8 2.2	10 @ V _F =12 V
14	YELLOW	4.4	11.3	580	587	594	591	1.8 2.2	10 @ V _F =12 V
15	ORANGE	5.6	14.0	600	606	609	610	1.8 2.2	10 @ V _F =12 V

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)		REVERSE CURRENT (μA)
				MIN	TYP	MAX	TYP	MAX	TYP	MAX	
#	DESCRIPTION	TYP									
21	RED [AlGaAs]	9	10	—	645	—	660	1.75	2.5	10 @ V _F =12 V	
23	GREEN	4	10	564	570	576	572	2.0	2.5	10 @ V _F =12 V	
24	YELLOW	2	10	580	587	595	586	2.0	2.5	10 @ V _F =5 V	
25	ORANGE	2	10	600	606	609	610	2.0	2.5	10 @ V _F =5 V	
26	BLUE [InGaN]	88	10	465	470	475	—	2.8	3.5	10 @ V _F =5 V	
27	YELLOW [AlInGaP]	60	20	580	587	595	591	2.0	2.4	10 @ V _F =12 V	
28	WHITE	50	10	X = .281 Y = .247			—	2.7	3.1	10 @ V _F =5 V	
29	GREEN [InGaN]	56	20	—	525	—	523	3.7	4.3	10 @ V _F =12 V	

OPERATING CHARACTERISTICS AT 25°C AMBIENT												
#30 &31	COLOR	LUMINOUS INTENSITY @I _f = 10 mA (mcd)			FORWARD VOLTAGE @I _f = 2 mA (V)		REVERSE CURRENT (μA) V = 12V		DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)	
		MIN	TYP	MAX	TYP	MAX	TYP	MAX	MIN	TYP	MAX	TYP
RED/GRN	RED	—	11	—	1.8	2.2	0.01	10	624	630	636	643
	GREEN	—	5	—					566	570	575	572
YLW/GRN	YELLOW	—	14	—	1.8	2.2	0.01	10	580	587	595	591
	GREEN	—	5	—					566	570	575	572

OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/YELLOW BI-COLOR LED									
#32	COLOR	LUMINOUS INTENSITY (mcd)			DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		MIN	TYP	MAX	MIN	TYP	MAX	TYP	
RED	RED	21	20	627	633	639	645	2.0	2.3
	YELLOW	34	20	580	587	595	591	2.0	2.4

OPERATING CHARACTERISTICS AT 25°C AMBIENT - YELLOW/GREEN BI-COLOR LED									
#33	COLOR	LUMINOUS INTENSITY (mcd)			DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		MIN	TYP	MAX	MIN	TYP	MAX	TYP	
YELLOW	YELLOW	145	20	585	—	595	—	1.8	2.4
	GREEN	245	20	515	—	525	—	2.8	3.4

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

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

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

OPERATING CHARACTERISTICS AT 25°C AMBIENT - RED/GRN/BLUE TRI-COLOR LED									
#37	COLOR	LUMINOUS INTENSITY (mcd)			DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		MIN	TYP	MAX	MIN	TYP	MAX	TYP	
RED	RED	52	10	615	630	—	—	1.8	2.4
	GREEN	210	10	518	530	—	—	2.8	3.6
BLUE	BLUE	34	10	465	475	—	—	2.8	3.6

OPERATING CHARACTERISTICS AT 25°C AMBIENT - GREEN SINGLE COLOR LED									
#40	COLOR	LUMINOUS INTENSITY (mcd)			DOMINANT WAVELENGTH (nm)		PEAK WAVELENGTH (nm)		FORWARD VOLTAGE (V)
		MIN	TYP	MAX	MIN	TYP	MAX	TYP	
GREEN	GREEN	192	10	520	525	530	—	2.8	3.5

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT - SINGLE COLOR LEDs					UNITS
RED	GREEN	YELLOW	ORANGE		
POWER DISSIPATION					mW
PEAK FORWARD CURRENT (1/200 DUTY CYCLE, 10μs PULSE WIDTH)					mA
CONTINUOUS FORWARD CURRENT					mA
LINEAR DERATING AT MAX CURRENT (20mA)					mW/°C
REVERSE VOLTAGE					V
LEAD REFLOW SOLDERING TEMPERATURE (FOR 5 SEC.)					°C
OPERATING TEMPERATURE					°C
STORAGE TEMPERATURE					°C

ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT SINGLE COLOR LEDs									
RED [H1.EFF]	RED [AlGaAs]	GREEN [H1.INT]	YELLOW [AlInGaP]	ORANGE	WHITE	BLUE [InGaN]	GREEN [InGaN]	UNITS	
95	90	95	95	95	91	100	114	mW	
500	500	500	500	500	100	100	200	mA	
30	30	30	30	30	30	30	30	mA	
0.75	0.75	0.75	0.75	0.75	0.75	0.67 (FROM 85°C)	0.42 (FROM 40°C)	mA/°C	
12	5	12	12	5	5	5	5	V	
260								°C	
-40 TO +100						-40 TO +85	-55 TO +100	°C	
-40 TO +100						-55 TO +100		°C	

ABSOLUTE MAXIMUM RATINGS AT 25 °C AMBIENT			RED/GRN	YLW/GRN	UNITS
RED/GRN	YLW/GRN	BI-COLOR LED			
CONTINUOUS FORWARD CURRENT				15	mA
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