



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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PART NUMBER	LED COLOR
591-2001-002	HI. EFF. RED
591-2001-007	
591-2001-013	
591-2101-002	AlGaAs RED
591-2101-007	
591-2101-013	
591-2201-002	HI. INTENSITY GREEN
591-2201-007	
591-2201-013	
591-2301-002	GREEN
591-2301-007	
591-2301-013	
591-2401-002	YELLOW
591-2401-007	
591-2401-013	
591-2601-002	BLUE
591-2601-007	
591-2601-013	
591-2701-002	AlInGaP YELLOW
591-2701-007	
591-2701-013	

LED COLOR = HI.EFF. / RED - GREEN - YELLOW						
OPERATING CHARACTERISTICS AT 25°C AMBIENT						
CHARACTERISTICS		MIN	TYP	MAX	UNITS	TEST CONDITIONS
LUMINOUS INTENSITY	RED	5.6	9.8	14.0	mcd	I _f = 10 mA
	GREEN	7.1	10.6	14.0		
	YELLOW	7.1	12.6	18.0		
FORWARD VOLTAGE	RED	2.0	2.5		V	I _f = 10 mA
	GREEN	2.0	2.5			
	YELLOW	2.0	2.5			
REVERSE VOLTAGE	RED	5			V	I _r = 10 μA
	GREEN	5				
	YELLOW	5				
PEAK WAVELENGTH	RED	635			nm	I _f = 10 mA
	GREEN	572				
	YELLOW	586				
DOMINANT WAVELENGTH	RED	622	628	634	nm	I _f = 10 mA
	GREEN	564	570	576		
	YELLOW	580	587	595		

LED COLOR = HI.EFF. / RED - GREEN - YELLOW			
ABSOLUTE MAXIMUM RATING AT 25°C AMBIENT			UNITS
POWER DISSIPATION	RED	95	mW
	GREEN	95	
	YELLOW	95	
CONTINUOUS FORWARD CURRENT	RED	30	mA
	GREEN	30	
	YELLOW	30	
OPERATING TEMPERATURE	R-G-Y	-40 TO 100	°C
STORAGE TEMPERATURE	R-G-Y	-40 TO 100	°C

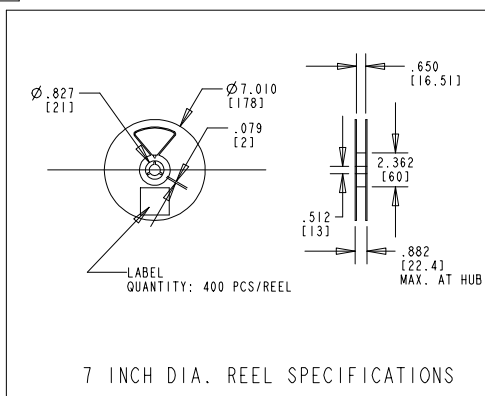
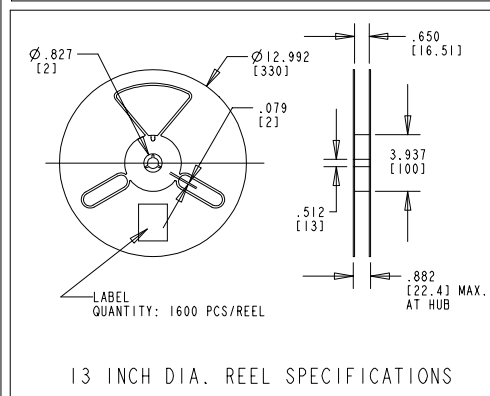
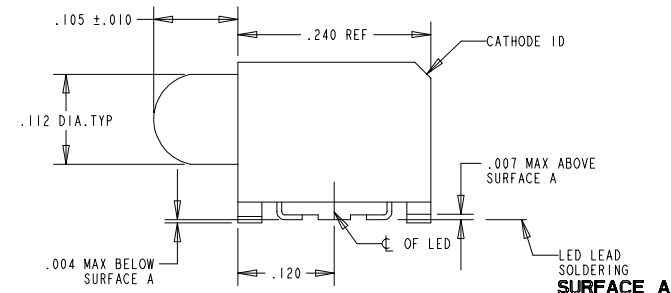
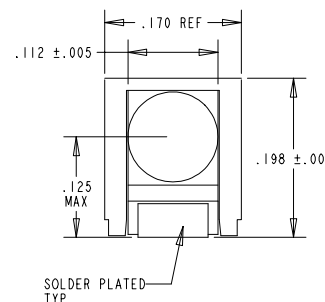
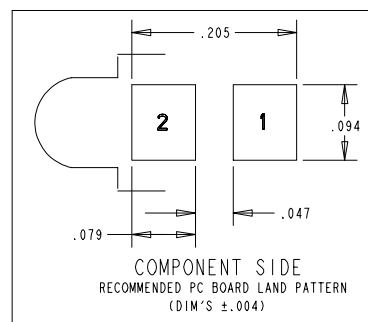
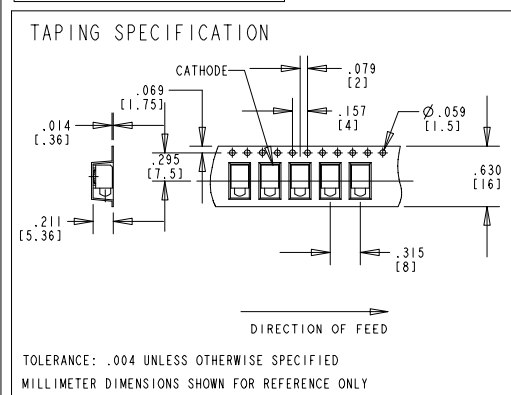
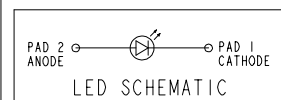
LED COLOR = RED (AlGaAs) GREEN (HI.INT.) YELLOW (AlInGaP)						
OPERATING CHARACTERISTICS AT 25°C AMBIENT						
CHARACTERISTICS		MIN	TYP	MAX	UNITS	TEST CONDITIONS
LUMINOUS INTENSITY	AlGaAs RED		23.9		mcd	I _f = 10 mA
	HI.INT. GREEN		9.1			
	AlInGaP YELLOW		33.6			
FORWARD VOLTAGE	AlGaAs RED	1.8	2.4		V	I _f = 20 mA
	HI.INT. GREEN	2.1	2.6			
	AlInGaP YELLOW	2.0	2.4			
REVERSE VOLTAGE	AlGaAs RED	5			V	I _r = 10 mA
	HI.INT. GREEN	5				
	AlInGaP YELLOW	5				
DOMINANT WAVELENGTH	AlGaAs RED		638		nm	I _f = 10 mA
	HI.INT. GREEN		569			
	AlInGaP YELLOW		595			

LED COLOR = RED (AlGaAs) GREEN (HI.INT.) YELLOW (AlInGaP)			
ABSOLUTE MAXIMUM RATING AT 25°C AMBIENT			
POWER DISSIPATION	R-G-Y	100	mW
DERATE LINEARLY FROM 25°C	AlGaAs RED	0.8	mA/°C
	HI.INT. GREEN	0.6	
	AlInGaP YELLOW	0.6	
CONTINUOUS FORWARD CURRENT	AlGaAs RED	40	mA
	HI.INT. GREEN	30	
	AlInGaP YELLOW	50	
PEAK FORWARD CURRENT (1/10 DUTY CYCLE, 0.1 ms PULSE WIDTH)	AlGaAs RED	200	mA
	HI.INT. GREEN	120	
	AlInGaP YELLOW	160	
OPERATING TEMPERATURE	R-G-Y	-55 TO 100	°C
STORAGE TEMPERATURE	R-G-Y	-55 TO 100	°C
INFRARED REFLOW SOLDERING	R-G-Y	260°C FOR 5 SEC	
VAPOR PHASE SOLDERING	R-G-Y	215°C FOR 3 MIN	

LED COLOR = BLUE						
OPERATING CHARACTERISTICS AT 25°C AMBIENT						
CHARACTERISTICS	MIN	TYP	MAX	UNITS	TEST CONDITIONS	
LUMINOUS INTENSITY		6.0		mcd	I _f = 10 mA	
FORWARD VOLTAGE		3.5	4.2	V	I _f = 10 mA	
REVERSE CURRENT		0.01	10	μA	V _r = 5 V	

LED COLOR = BLUE			
ABSOLUTE MAXIMUM RATING AT 25°C AMBIENT			UNITS
POWER DISSIPATION		100	mW
DERATE LINEARLY FROM 55°C		0.44	mA/°C
CONTINUOUS FORWARD CURRENT		20	mA
OPERATING TEMPERATURE		-40 TO 100	°C
STORAGE TEMPERATURE		-40 TO 100	°C

SOLDER PROFILE: IR 235°C PEAK FOR 15 sec / 185°C FOR 90 sec MAX



- NOTES :
- 1- MILLIMETER DIMENSIONS SHOWN FOR REFERENCE ONLY
 - 2- PAD NUMBERS ARE FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PART
 - 3- STORAGE CONDITIONS FOR TAPED PRODUCT: RE-TAPING MAY BE NECESSARY FOR PRODUCTS STORED MORE THAN TWELVE MONTHS
 - 4- ORDER QUANTITY IS LED ASSEMBLIES, NOT REELS
 - 5- ...-002 SUFFIX MEANS PARTS ARE PACKED ON A 20 pc SAMPLE STRIP
...-007 SUFFIX MEANS PARTS ARE PACKED ON A 7 INCH REEL, 400 pcs/REEL
...-013 SUFFIX MEANS PARTS ARE PACKED ON A 13 INCH REEL, 1600 pcs/REEL
 - 6- LENS MOVEMENT IN RELATIONSHIP TO THE HOUSING IS:
.009" T.I.R. VERTICALLY
.007" T.I.R. HORIZONTALLY
 - 7- FRONT AND REAR TERMINALS OF THE ASSEMBLY TO BE WITHIN .005 COPLANARITY
 - 8- LED LEAD FRAME MATERIAL:
CORE MATERIAL = COPPER
1st PLATING = Ag-100%, THICKNESS ABOUT 90 MICRO-INCH
2nd PLATING = 90% Sn - 10% Pb, THICKNESS RANGE 200 TO 800 MICRO-INCH
 - 9- DIALIGHT PART NUMBERS =
591-2401-002, 591-2401-007, 591-2401-013
 - 10- DEVICE HAS A MOISTURE SENSITIVITY LEVEL "2" CAUTION LABEL APPLIED AS PER JEDEC STD. 033

REV.	ECN NO.	REVISIONS	DRN.	CKD.	APP.	DATE
A		---	---	---	---	---
B		---	---	---	---	---
C		---	---	---	---	---
D		REDRAWN WITH CHANGES -NEW HSG AND LENS DESIGN -ADDED NOTE 6-8 -CHANGE LED CHARACTERISTIC	YY	---	NO	3-7-94
E		ADDED HI. GREEN AND AlInGaP YELLOW AND CHANGE TO ANOTHER AlGaAs RED CHANGE NOTE 8	AV	DC	NO	3-8-00
F		ADD ...2601... (BLUE) CORRECT HI.EFF. LED SPEC	AV	DC	NO	10-10-00
G		ADDED NOTE 10	YIS	JMC	NO	2-14-03
H		UPDATED LED SPEC. FOR HI.EFF. RED, GREEN & YELLOW	YIS			

SCALE 8:1		
ALL DIM'S IN: INCHES	DRAWING NUMBER	REV
	C-15636	H
TOLERANCES: UNLESS OTHERWISE SPECIFIED	TITLE SURFACE MOUNT CBI - ROUND LENS	
FRACTIONS: ±1/64 DECIMALS (.XX): ±.020 DECIMALS (.XXX): ±.015 DECIMALS (.XXXX): ±.010 ANGLES: ±3°	MATERIAL	
FINISH:	Dialight	
FSCM 83330	1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727	
	SHEET OF	FAMILY TABLES: