



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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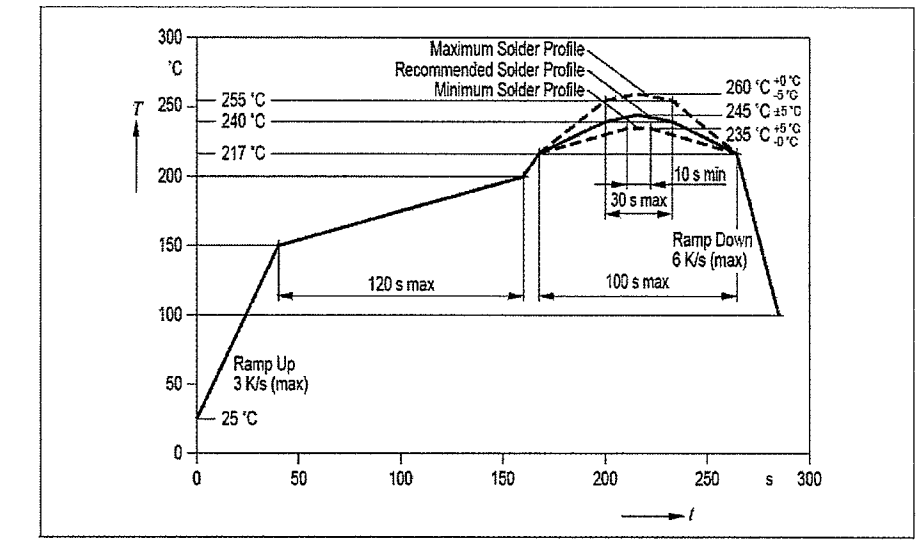


| PART NUMBER | LED COLOR |
|---------------|-----------|
| 591-2004-102F | RED |
| 591-2004-107F | |
| 591-2004-113F | |
| 591-2304-102F | GREEN |
| 591-2304-107F | |
| 591-2304-113F | |
| 591-2404-102F | YELLOW |
| 591-2404-107F | |
| 591-2404-113F | |
| 591-2504-102F | ORANGE |
| 591-2504-107F | |
| 591-2504-113F | |

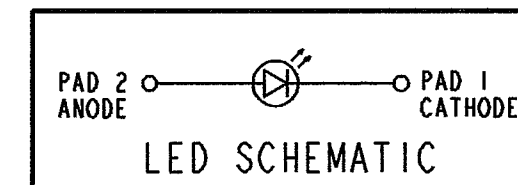
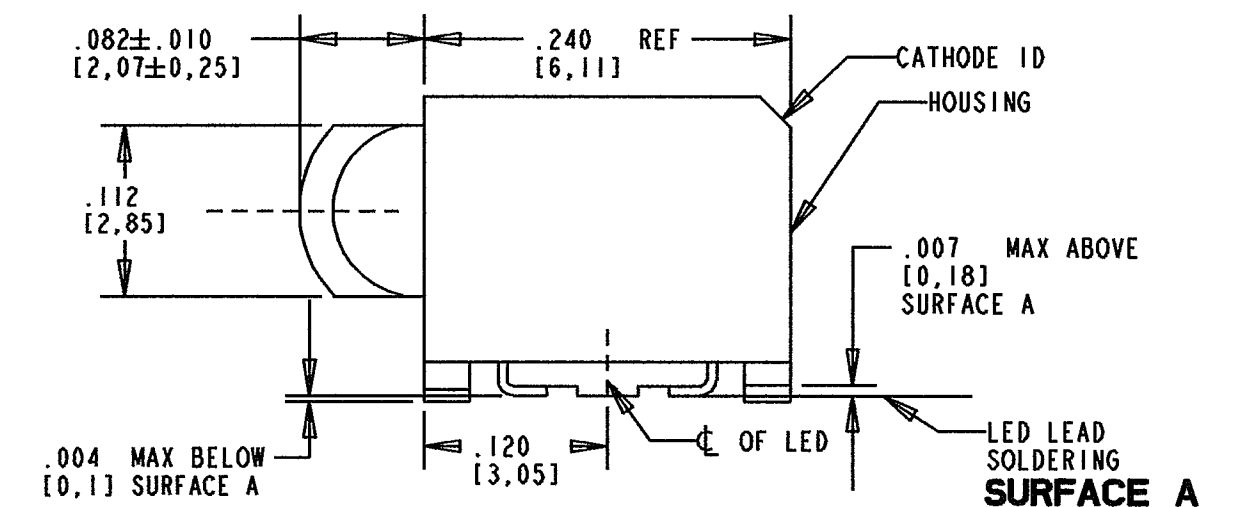
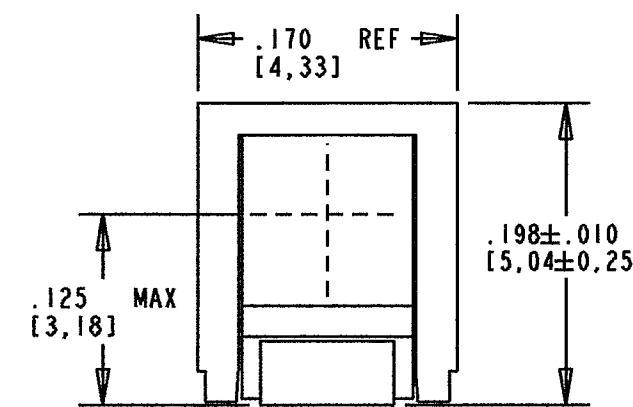
| OPERATING CHARACTERISTICS AT 25°C AMBIENT | | | | | | |
|---|--------|-----|------|-----|---------------|----------------------|
| CHARACTERISTICS | COLOR | MIN | TYP | MAX | UNITS | TEST CONDITIONS |
| LUMINOUS INTENSITY | RED | — | 30 | — | mcd | $I_f = 2 \text{ mA}$ |
| | GREEN | — | 10 | — | | |
| | YELLOW | — | 40 | — | | |
| | ORANGE | — | 55 | — | | |
| | RED | — | 80 | — | | |
| | GREEN | — | 40 | — | | |
| FORWARD VOLTAGE | RED | 1.7 | 1.8 | 2.2 | V | $I_f = 2 \text{ mA}$ |
| | GREEN | 1.7 | 1.8 | 2.2 | | |
| | YELLOW | 1.7 | 1.8 | 2.2 | | |
| | ORANGE | 1.7 | 1.8 | 2.2 | | |
| REVERSE CURRENT | RED | — | 0.01 | 10 | μA | $V_R = 12 \text{ V}$ |
| | GREEN | — | 0.01 | 10 | | |
| | YELLOW | — | 0.01 | 10 | | |
| | ORANGE | — | 0.01 | 10 | | |
| VIEWING ANGLE | | 40 | | | Degree | |
| DOMINANT WAVELENGTH | RED | 624 | 630 | 636 | nm | $I_f = 2 \text{ mA}$ |
| | GREEN | 566 | 570 | 575 | | |
| | YELLOW | 580 | 587 | 595 | | |
| | ORANGE | 600 | 606 | 609 | | |
| PEAK WAVELENGTH | RED | — | 643 | — | nm | $I_f = 2 \text{ mA}$ |
| | GREEN | — | 572 | — | | |
| | YELLOW | — | 591 | — | | |
| | ORANGE | — | 610 | — | | |

| ABSOLUTE MAXIMUM RATINGS AT 25°C AMBIENT | | |
|--|-------------|----|
| POWER CONSUMPTION | 50 | mW |
| FORWARD CURRENT | 20 | mA |
| SURGE CURRENT | 100 | mA |
| REVERSE VOLTAGE | 12 | V |
| OPERATING TEMPERATURE | -40 TO +100 | °C |
| STORAGE TEMPERATURE | -40 TO +100 | °C |

| REV | ECN NO | REVISIONS | DRN | CKD | APP | DATE |
|-----|--------|-------------------------------|-----|------|-----|---------|
| A | | NEW RELEASE | KLJ | N.O. | MEG | 2-15-08 |
| B | | VIEWING ANGLE "40" WAS "120". | KLJ | MEG | MEG | 3-18-08 |



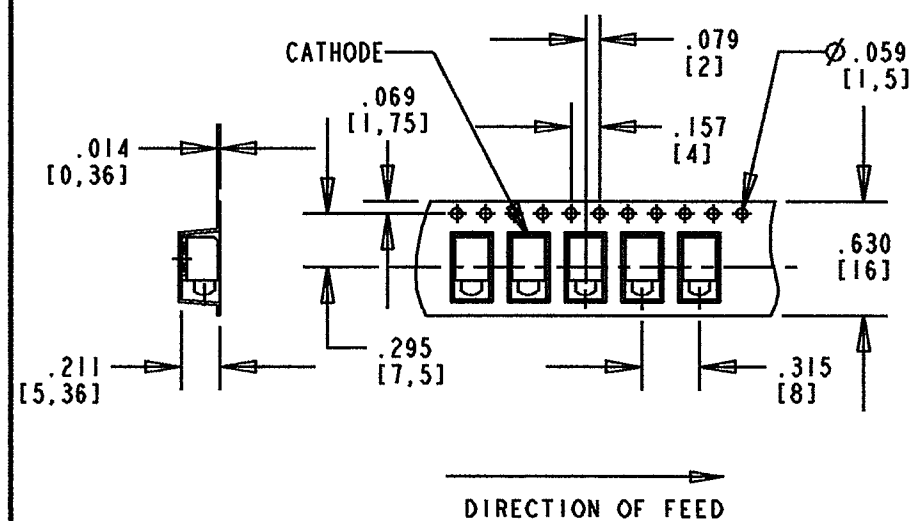
RoHS COMPLIANT REFLOW PROFILE



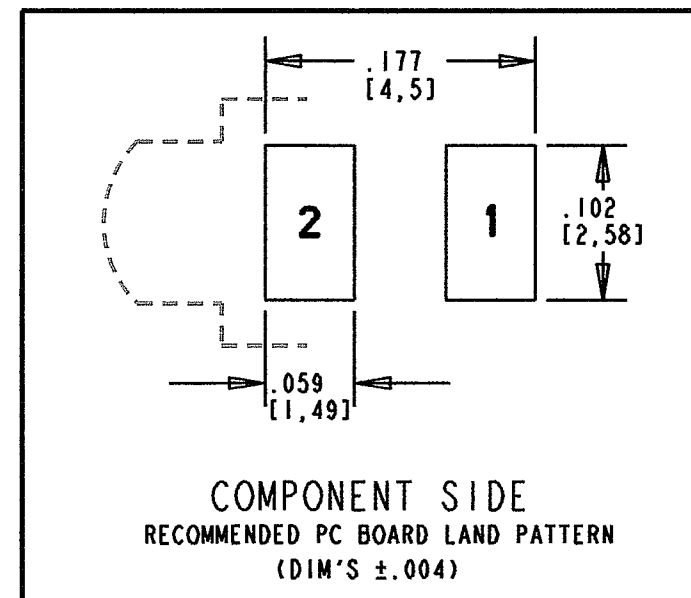
RoHS Compliant 591-2X04-1XXF

Part Numbers with the "F" suffix ending are RoHS Compliant.
 Example: 591-2004-102F
 Packaging is marked with "RoHS Compliant" label or equivalent markings. Parts can be reflow soldered per RoHS reflow profile, wave soldered, dip soldered, or hand soldered using typical lead-free soldering process with max 260°C temp. for 5 sec.

TAPING SPECIFICATION



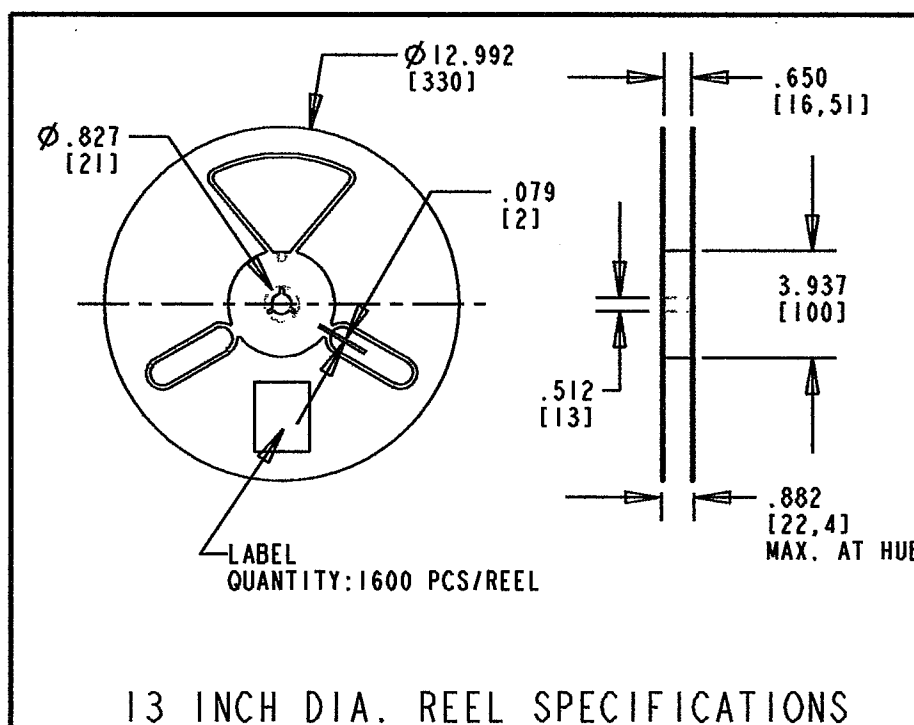
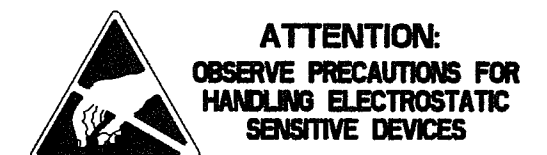
TOLERANCE: .004 UNLESS OTHERWISE SPECIFIED
 MILLIMETER DIMENSIONS SHOWN FOR REFERENCE ONLY



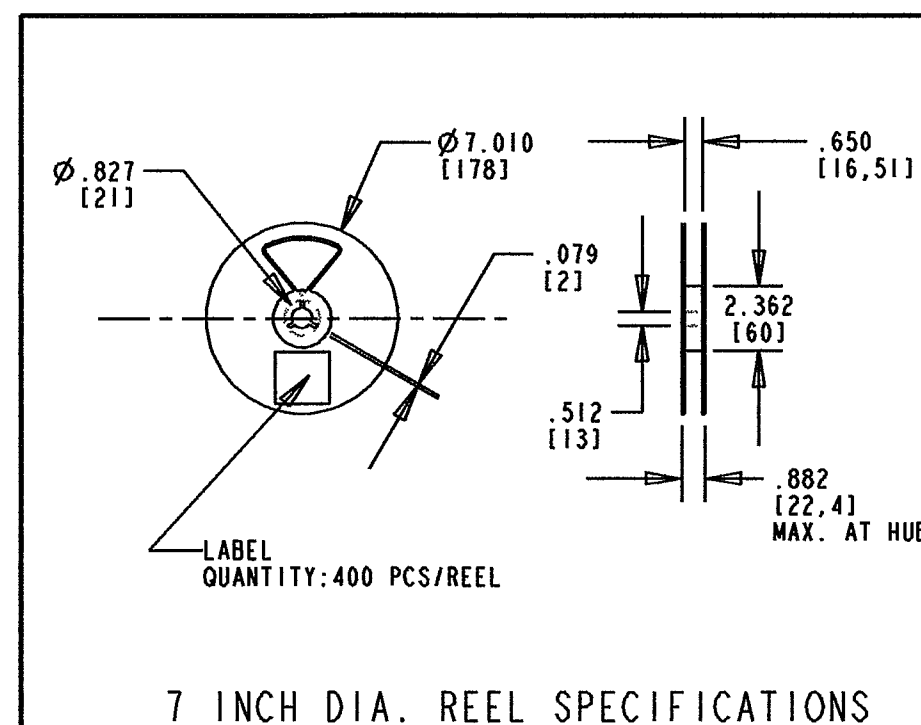
COMPONENT SIDE
 RECOMMENDED PC BOARD LAND PATTERN
 (DIM'S ±.004)

NOTES :

- MILLIMETER DIMENSIONS SHOWN FOR REFERENCE ONLY.
- PAD NUMBERS ARE FOR REFERENCE ONLY, DESIGNATION NON-EXISTENT ON PART.
- STORAGE CONDITIONS FOR TAPED PRODUCT: RE-TAPING MAY BE NECESSARY FOR PRODUCT STORED MORE THAN TWELVE MONTHS.
- ORDER QUANTITY IS LED ASSEMBLIES, NOT REELS.
- ...-102F SUFFIX MEANS PARTS ARE PACKED ON A 20 PCS. SAMPLE STRIP
 ...-107F SUFFIX MEANS PARTS ARE PACKED ON A 7 INCH REEL, 400 pcs/REEL
 ...-113F SUFFIX MEANS PARTS ARE PACKED ON A 13 INCH REEL, 1600 pcs/REEL
- LENS MOVEMENT IN RELATIONSHIP TO THE HOUSING IS:
 .009" T.I.R. VERTICALLY
 .007" T.I.R. HORIZONTALLY
- FRONT AND REAR TERMINALS OF THE ASSEMBLY TO BE WITHIN .005 COPLANARITY.
- DIALIGHT PART NUMBERS: 591-2X04-102F, 591-2X04-107F, 591-2X04-113F.
- DEVICE HAS A MOISTURE SENSITIVITY LEVEL "2" CAUTION LABEL APPLIED AS PER JEDEC STD. 033.
- THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). MAINTAIN ALL PRECAUTIONARY MEASURES DURING ASSEMBLY, HANDLING, AND STORAGE IN ACCORDANCE WITH IPC-A-610.



13 INCH DIA. REEL SPECIFICATIONS



7 INCH DIA. REEL SPECIFICATIONS

| | | |
|---|---|-----------------------------|
| THIS DRAWING AND THE CONTENTS HEREIN ARE CONFIDENTIAL AND THE SOLE PROPERTY OF DIALIGHT. REPRODUCTION OF THIS DRAWING OR CONSTRUCTION OF ANY PARTS WITHIN THIS DRAWING ARE FORBIDDEN WITHOUT THE WRITTEN CONSENT OF DIALIGHT. | | |
| SCALE: DRAWING SCALE | DRAWING NUMBER | REV |
| ALL DIM'S IN: INCHES (MM) | C-17552 | B |
| TOLERANCES: UNLESS OTHERWISE SPECIFIED | TITLE LOW CURRENT SURFACE MOUNT CBI - SQUARE LENS; RoHS COMPLIANT | |
| FRACTIONS: ±1/64 | MATERIAL | |
| DECIMALS (.XX): ±.01 | FINISH: | |
| DECIMALS (.XXX): ±.005 | Dialight | |
| DECIMALS (.XXXX): ±.0005 | 1501 ROUTE 34 SOUTH FARMINGDALE, NJ 07727 | |
| ANGLES: ±1° | FSCM 83330 | SHEET 1 OF 1 FAMILY TABLES: |