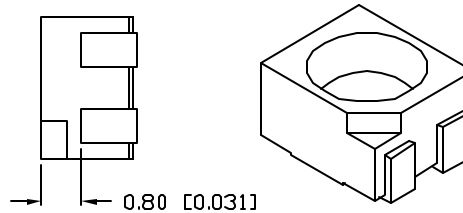
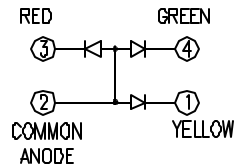
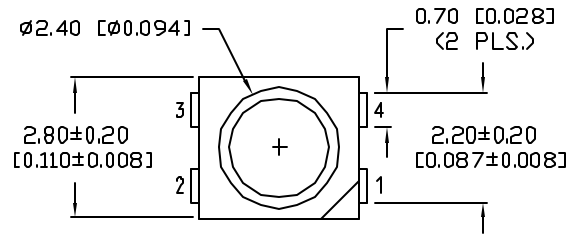
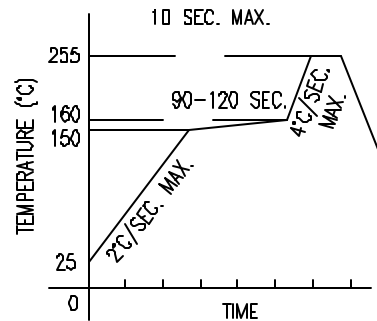


# UNCONTROLLED DOCUMENT

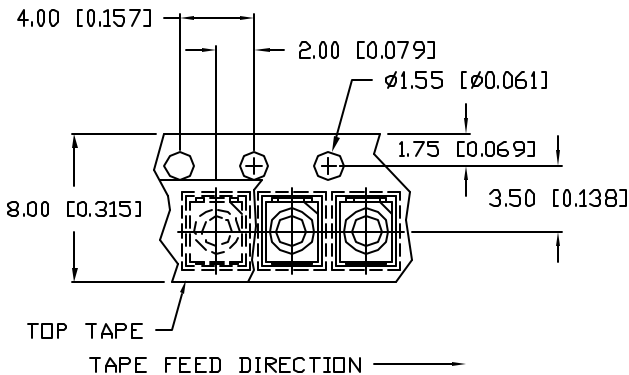
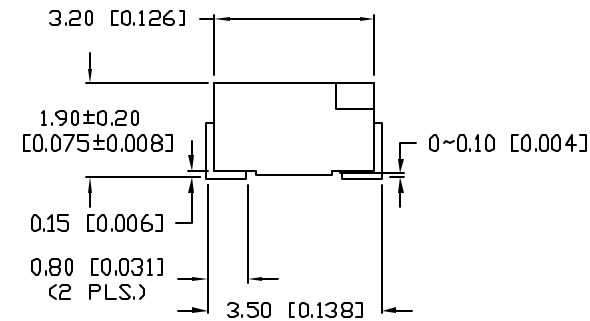
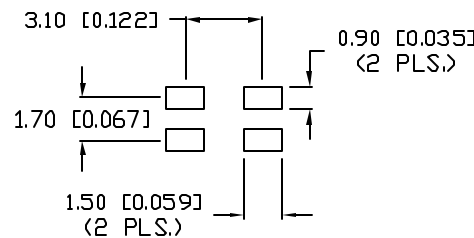


## LEAD FREE REFLOW PROFILE



TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

## RECOMMENDED SOLDER PAD LAYOUT



| ELECTRO-OPTICAL CHARACTERISTICS $T_A=25^\circ\text{C}$ $I_f=20\text{mA}$ |        |       |     |          | TEST COND            |
|--------------------------------------------------------------------------|--------|-------|-----|----------|----------------------|
| PARAMETER                                                                | YELLOW | GREEN | RED | UNITS    |                      |
| PEAK WAVELENGTH                                                          | 590    | 574   | 636 | nm       |                      |
| FORWARD VOLTAGE (TYP.)                                                   | 2.0    | 2.2   | 2.0 | $V_f$    |                      |
| FORWARD VOLTAGE (MAX.)                                                   | 2.5    | 2.6   | 2.5 | $V_f$    |                      |
| REVERSE VOLTAGE                                                          | 5.0    | 5.0   | 5.0 | $V_r$    | $I_f=100\mu\text{A}$ |
| AXIAL INTENSITY                                                          | 150    | 150   | 220 | mcd      | $I_f=20\text{mA}$    |
| VIEWING ANGLE                                                            | 120    | 120   | 120 | 2x theta |                      |
| LED POSITION:                                                            | 1      | 2     | 3   |          |                      |
| EPOXY LENS FINISH: WATER CLEAR                                           |        |       |     |          |                      |

## LIMITS OF SAFE OPERATION AT 25°C PER CHIP

| PARAMETER             | COLORS  | MAX         | UNITS |
|-----------------------|---------|-------------|-------|
| PEAK FORWARD CURRENT* | (Y/G/R) | 150/150/185 | mA    |
| STEADY CURRENT        |         | 30          | mA    |
| POWER DISSIPATION     |         | 120         | mW    |
| DERATE FROM 25°C      |         | -1.2        | mW/°C |
| OPERATING TEMP.       |         | -40 TO +85  | °C    |
| STORAGE TEMP.         |         | -40 TO +85  | °C    |

\*  $t < 10\mu\text{s}$

## NOTES:

1. THE POLARITY MARK IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.

CAUTION: STATIC SENSITIVE DEVICE  
FOLLOW PROPER E.S.D. HANDLING PROCEDURES  
WHEN WORKING WITH THIS PART.

CAUTION: MOISTURE SENSITIVE DEVICE  
PER JEDEC LEVEL 4 STANDARDS



\*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030), WLN=+0.00/-0.00, MAX.=+0.00/-0.00

REV.

PART NUMBER

SML-LX2832SYSUGSIC

2.8mm x 3.2mm SURFACE MOUNT WITH REFLECTOR CUP,  
SUPER YELLOW, SUPER ULTRA GREEN, SUPER RED,  
WATER CLEAR LENS, TAPE AND REEL

## CONFIDENTIAL INFORMATION

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.

## RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.



290 E. HELEN ROAD  
PALATINE, IL 60067-6976  
PHONE: +1.847.359.2790  
US WEB: www.lumex.com  
TW WEB: www.lumex.com.tw

DRAWN BY:

JD

CHECKED BY:

APPROVED BY:

DATE: 1.18.05

PAGE: 1 OF 1

SCALE: N/A