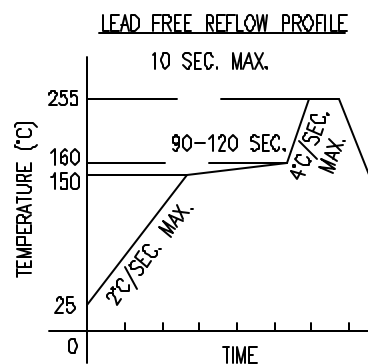
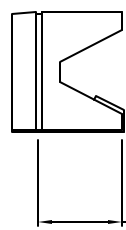
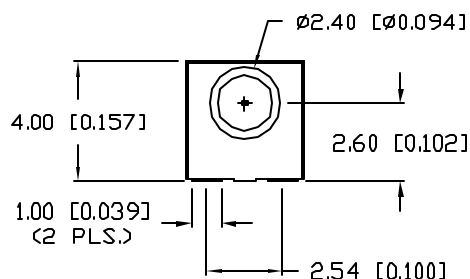
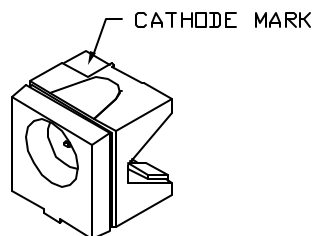
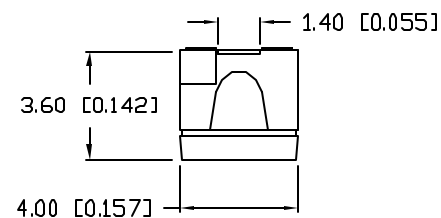
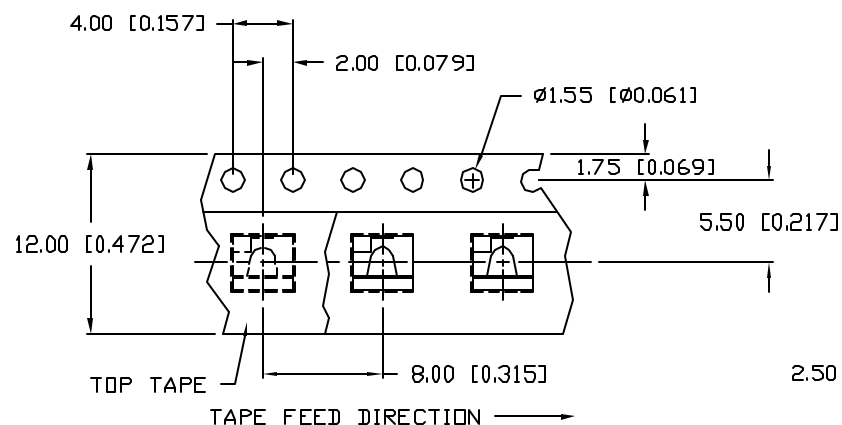


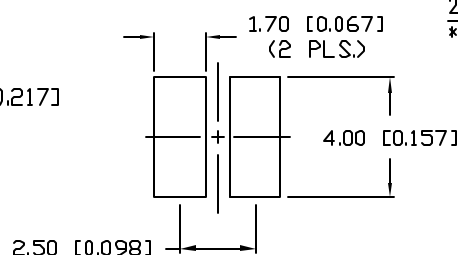
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TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.



## RECOMMENDED SOLDER PAD LAYOUT



| ELECTRO-OPTICAL CHARACTERISTICS $T_A=25^\circ\text{C}$ $I_f=20\text{mA}$ |     |          |     |                |                     |
|--------------------------------------------------------------------------|-----|----------|-----|----------------|---------------------|
| PARAMETER                                                                | MIN | TYP      | MAX | UNITS          | TEST COND           |
| PEAK WAVELENGTH                                                          |     | 940      |     | nm             |                     |
| SPECTRAL BANDWIDTH                                                       |     | 50       |     | nm             |                     |
| FORWARD VOLTAGE                                                          |     | 1.2      | 1.6 | V <sub>f</sub> |                     |
| REVERSE VOLTAGE                                                          | 5.0 |          |     | V <sub>r</sub> | $I_r=10\mu\text{A}$ |
| RADIANT INTENSITY                                                        |     | 35       |     | mW/SR          | $I_f=100\text{mA}$  |
| HALF ANGLE                                                               |     | $\pm 45$ |     | degrees        |                     |
| EPOXY LENS FINISH: WATER CLEAR                                           |     |          |     |                |                     |

## LIMITS OF SAFE OPERATION AT 25°C

| PARAMETER             | MAX        | UNITS      |
|-----------------------|------------|------------|
| PEAK FORWARD CURRENT* | 1.2        | A          |
| STEADY CURRENT        | 50         | mA         |
| POWER DISSIPATION     | 100        | mW         |
| DERATE FROM 25°C      | -1.6       | mW/°C      |
| OPERATING TEMP.       | -40 TO +85 | °C         |
| STORAGE TEMP.         | -40 TO +85 | °C         |
| SOLDERING TEMP.       | +260       | °C         |
| 2.0mm FROM BODY       |            | 3 SEC. MAX |

\*  $t_p < 100\mu\text{s}$ ,  $t_p/T=0.01$ 

## NOTES:

- 500 PIECES PER REEL.
- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



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\*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), MIN=+DECIMAL PRECISION -0.00, MAX.=+0.00 -DECIMAL PRECISION

REV.

A

PART NUMBER

OED-ELR44C45-TR

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## 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.



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DATE: 12.15.05

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SCALE: N/A

RIGHT ANGLE BOOMERANG SURFACE MOUNT LED,  
940nm INFRARED EMITTING DIODE, WATER CLEAR LENS.

# Mouser Electronics

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