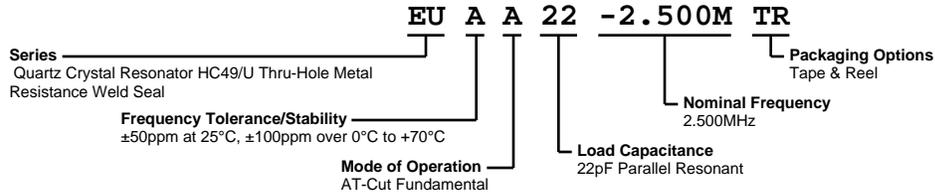


# EUAA22-2.500M TR



## ELECTRICAL SPECIFICATIONS

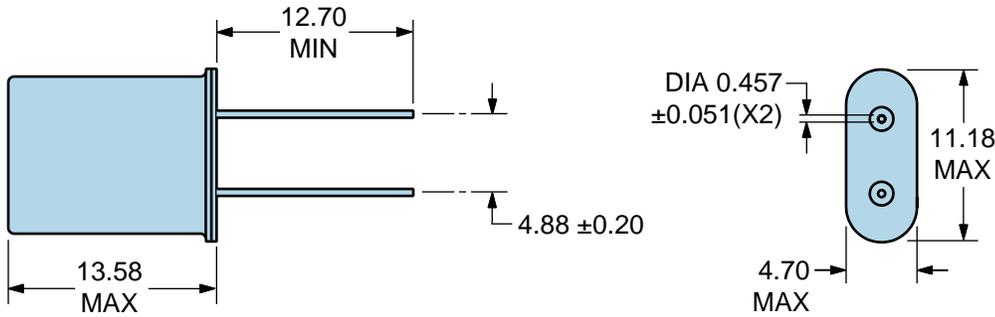
|                               |   |
|-------------------------------|---|
| Nominal Frequency             | 2.500MHz                                  |
| Frequency Tolerance/Stability | ±50ppm at 25°C, ±100ppm over 0°C to +70°C |
| Aging at 25°C                 | ±5ppm/year Maximum                        |
| Load Capacitance              | 22pF Parallel Resonant                    |
| Shunt Capacitance             | 7pF Maximum                               |
| Equivalent Series Resistance  | 350 Ohms Maximum                          |
| Mode of Operation             | AT-Cut Fundamental                        |
| Drive Level                   | 2mWatts Maximum                           |
| Storage Temperature Range     | -40°C to +125°C                           |
| Insulation Resistance         | 500 Megaohms Minimum (Measured at 100Vdc) |

## ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

|                              |   |
|------------------------------|---|
| ESD Susceptibility           | MIL-STD-883, Method 3015, Class 1, HBM: 1500V |
| Fine Leak Test               | MIL-STD-883, Method 1014, Condition A         |
| Flammability                 | UL94-V0                                       |
| Gross Leak Test              | MIL-STD-883, Method 1014, Condition C         |
| Lead Integrity               | MIL-STD-883, Method 2004                      |
| Mechanical Shock             | MIL-STD-202, Method 213, Condition C          |
| Moisture Resistance          | MIL-STD-883, Method 1004                      |
| Moisture Sensitivity         | J-STD-020, MSL1                               |
| Resistance to Soldering Heat | MIL-STD-202, Method 210, Condition K          |
| Resistance to Solvents       | MIL-STD-202, Method 215                       |
| Solderability                | MIL-STD-883, Method 2003                      |
| Temperature Cycling          | MIL-STD-883, Method 1010, Condition B         |
| Vibration                    | MIL-STD-883, Method 2007, Condition A         |

# EUAA22-2.500M TR

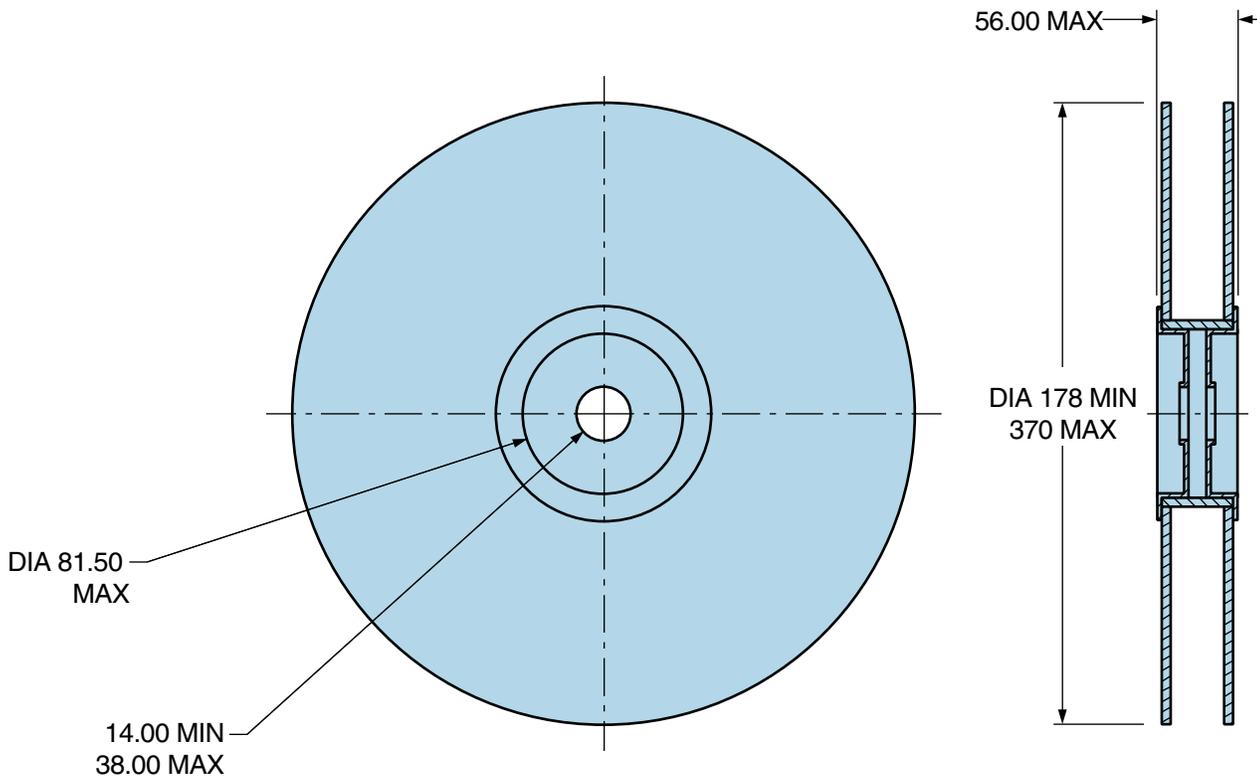
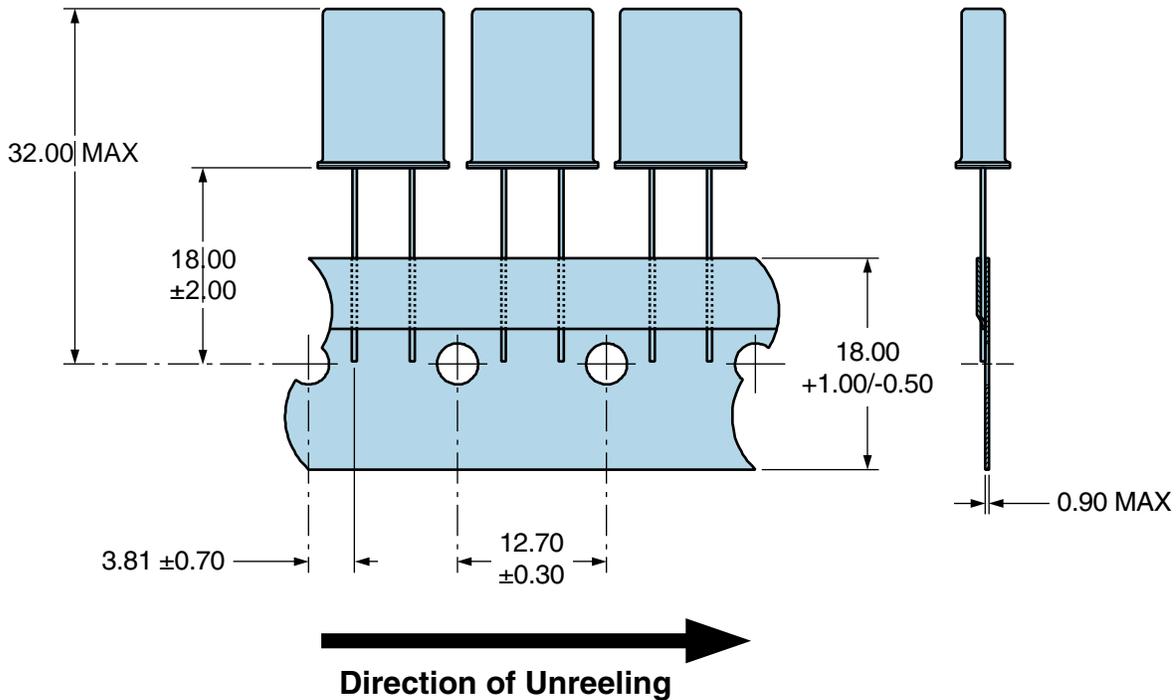
MECHANICAL DIMENSIONS (all dimensions in millimeters)



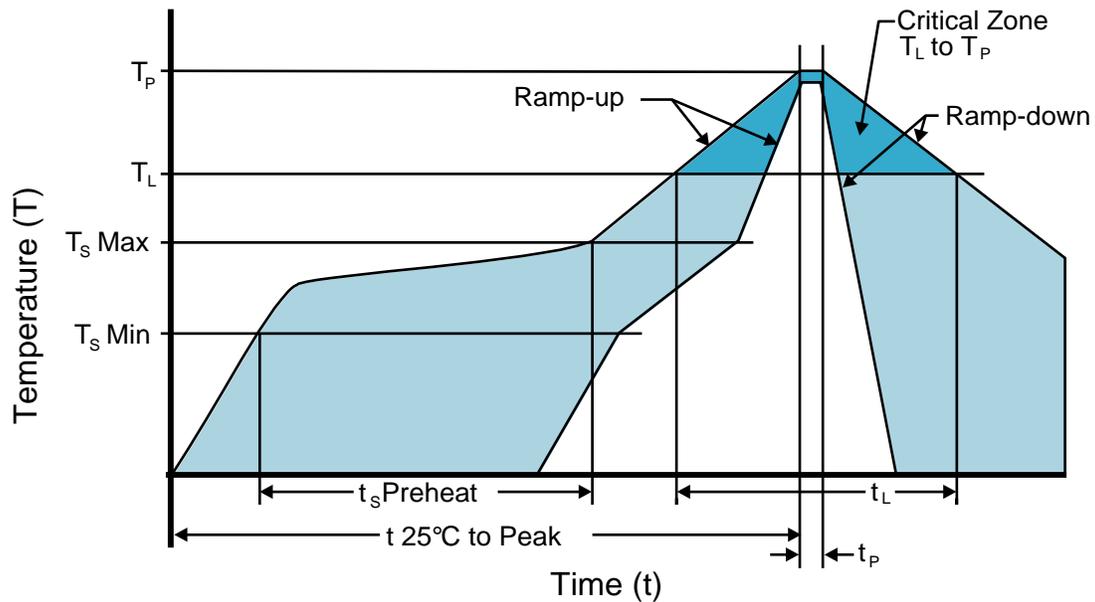
| LINE | MARKING  |
|------|--|
| 1    | <b>ECLIPTEK</b>  |
| 2    | <b>E2.500M</b><br><i>E=Configuration Designator</i>      |
| 3    | <b>XX</b><br><i>XX=Ecliptek Manufacturing Identifier</i> |

# EUAA22-2.500M TR Tape & Reel Dimensions

All Dimensions in Millimeters  
Compliant to EIA-468  
Quantity Per Reel: 1,000 units



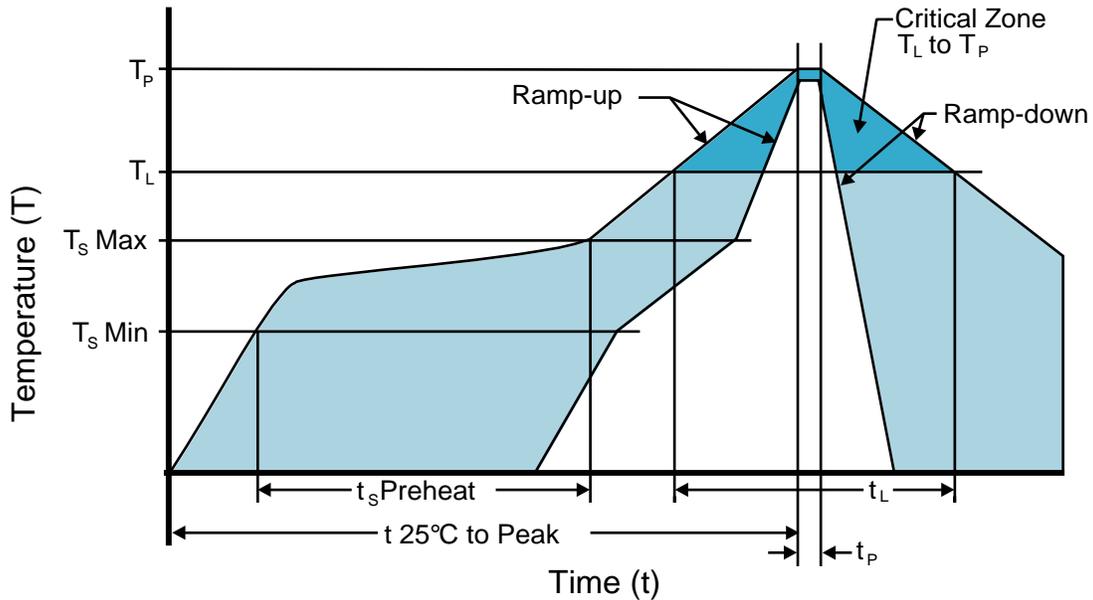
## Recommended Solder Reflow Methods



### High Temperature Solder Bath (Wave Solder)

|  |  |
|--|--|
| <b>T<sub>s</sub> MAX to T<sub>L</sub> (Ramp-up Rate)</b> | 3°C/second Maximum   |
| <b>Preheat</b>   |  |
| - Temperature Minimum (T <sub>s</sub> MIN)               | 150°C  |
| - Temperature Typical (T <sub>s</sub> TYP)               | 175°C  |
| - Temperature Maximum (T <sub>s</sub> MAX)               | 200°C  |
| - Time (t <sub>s</sub> MIN)                              | 60 - 180 Seconds   |
| <b>Ramp-up Rate (T<sub>L</sub> to T<sub>P</sub>)</b>     | 3°C/second Maximum   |
| <b>Time Maintained Above:</b>                            |  |
| - Temperature (T <sub>L</sub> )                          | 217°C  |
| - Time (t <sub>L</sub> )                                 | 60 - 150 Seconds   |
| <b>Peak Temperature (T<sub>P</sub>)</b>                  | 260°C Maximum for 10 Seconds Maximum                                       |
| <b>Target Peak Temperature (T<sub>P</sub> Target)</b>    | 250°C +0/-5°C  |
| <b>Time within 5°C of actual peak (t<sub>p</sub>)</b>    | 20 - 40 seconds  |
| <b>Ramp-down Rate</b>                                    | 6°C/second Maximum   |
| <b>Time 25°C to Peak Temperature (t)</b>                 | 8 minutes Maximum  |
| <b>Moisture Sensitivity Level</b>                        | Level 1  |
| <b>Additional Notes</b>                                  | Temperatures shown are applied to back of PCB board and device leads only. |

## Recommended Solder Reflow Methods



### Low Temperature Solder Bath (Wave Solder)

|  |  |
|--|--|
| <b><math>T_s</math> MAX to <math>T_L</math> (Ramp-up Rate)</b> | 5°C/second Maximum   |
| <b>Preheat</b>   |  |
| - Temperature Minimum ( $T_s$ MIN)                             | N/A  |
| - Temperature Typical ( $T_s$ TYP)                             | 150°C  |
| - Temperature Maximum ( $T_s$ MAX)                             | N/A  |
| - Time ( $t_s$ MIN)  | 30 - 60 Seconds  |
| <b>Ramp-up Rate (<math>T_L</math> to <math>T_p</math>)</b>     | 5°C/second Maximum   |
| <b>Time Maintained Above:</b>                                  |  |
| - Temperature ( $T_L$ )  | 150°C  |
| - Time ( $t_L$ )   | 200 Seconds Maximum  |
| <b>Peak Temperature (<math>T_p</math>)</b>                     | 245°C Maximum  |
| <b>Target Peak Temperature (<math>T_p</math> Target)</b>       | 245°C Maximum 1 Time / 235°C Maximum 2 Times                               |
| <b>Time within 5°C of actual peak (<math>t_p</math>)</b>       | 5 seconds Maximum 1 Time / 15 seconds Maximum 2 Times                      |
| <b>Ramp-down Rate</b>  | 5°C/second Maximum   |
| <b>Time 25°C to Peak Temperature (t)</b>                       | N/A  |
| <b>Moisture Sensitivity Level</b>                              | Level 1  |
| <b>Additional Notes</b>  | Temperatures shown are applied to back of PCB board and device leads only. |

### Low Temperature Manual Soldering

185°C Maximum for 10 seconds Maximum, 2 times Maximum. (Temperatures shown are applied to back of PCB board and device leads only.)

### High Temperature Manual Soldering

260°C Maximum for 5 seconds Maximum, 2 times Maximum. (Temperatures shown are applied to back of PCB board and device leads only.)