EUAAS-3.1711M TR

EU A A S -3.1711M TR

- **Series**: RoHS Compliant (Pb-free) Resistance Welded HC-49/U Crystal
- **Frequency Tolerance/Stability**: ±50ppm at 25°C, ±100ppm over 0°C to +70°C
- **Mode of Operation**: AT-Cut Fundamental
- **Load Capacitance**: Series Resonant
- **Nominal Frequency**: 3.1711MHz
- **Packaging Options**: Tape & Reel

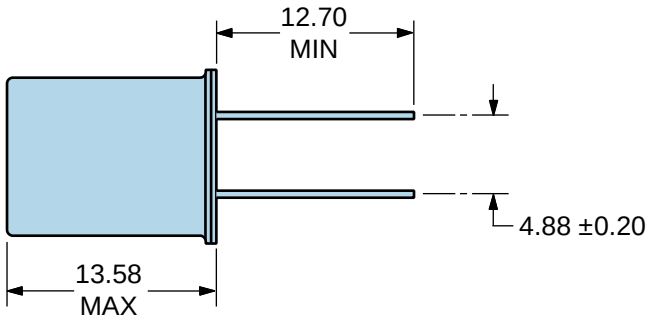
ELECTRICAL SPECIFICATIONS

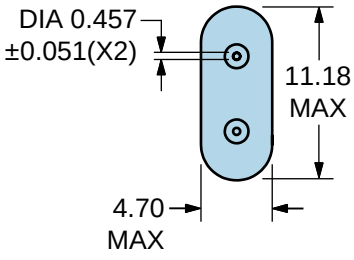
Nominal Frequency	3.1711MHz
Frequency Tolerance/Stability	±50ppm at 25°C, ±100ppm over 0°C to +70°C
Aging at 25°C	±5ppm/year Maximum
Load Capacitance	Series Resonant
Shunt Capacitance (C0)	7pF Maximum
Equivalent Series Resistance	250 Ohms Maximum
Mode of Operation	AT-Cut Fundamental
Drive Level	2mWatts Maximum
Storage Temperature Range	-40°C to +125°C
Insulation Resistance	500 Megaohms Minimum at 100Vdc

ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Lead Integrity	MIL-STD-883, Method 2004
Lead Termination	Sn 2µm - 6µm
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003
Temperature Cycling	MIL-STD-883, Method 1010
Vibration	MIL-STD-883, Method 2007, Condition A

MECHANICAL DIMENSIONS (all dimensions in millimeters)





LINE	MARKING
1	**ECLIPTEK**
2	**E3.1711M** *E=Configuration Designator*
3	**XX** *XX=Ecliptek Manufacturing Code*

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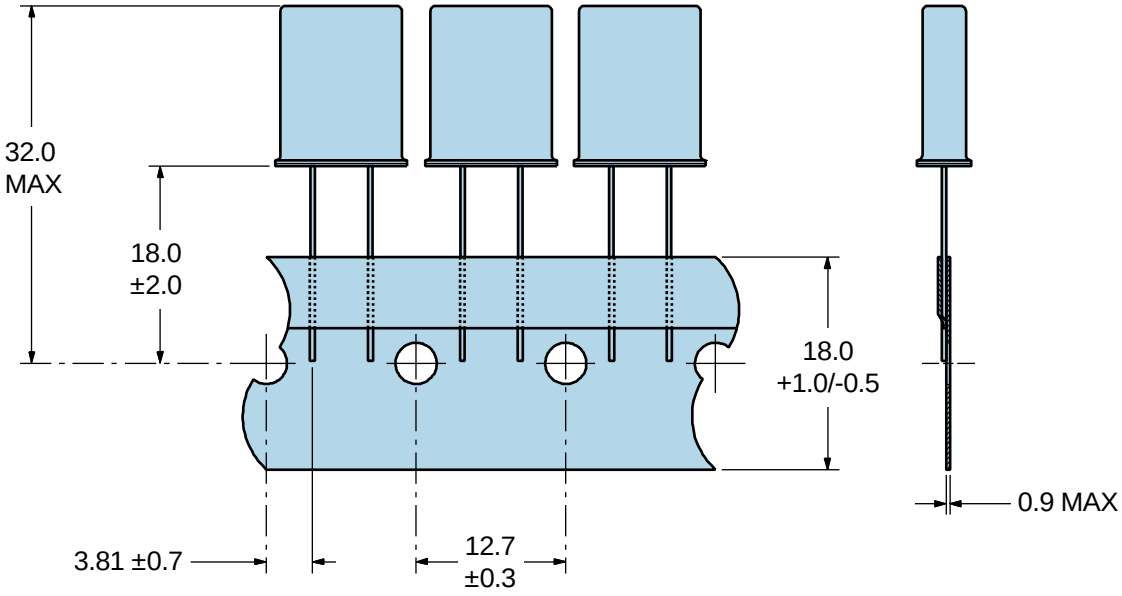
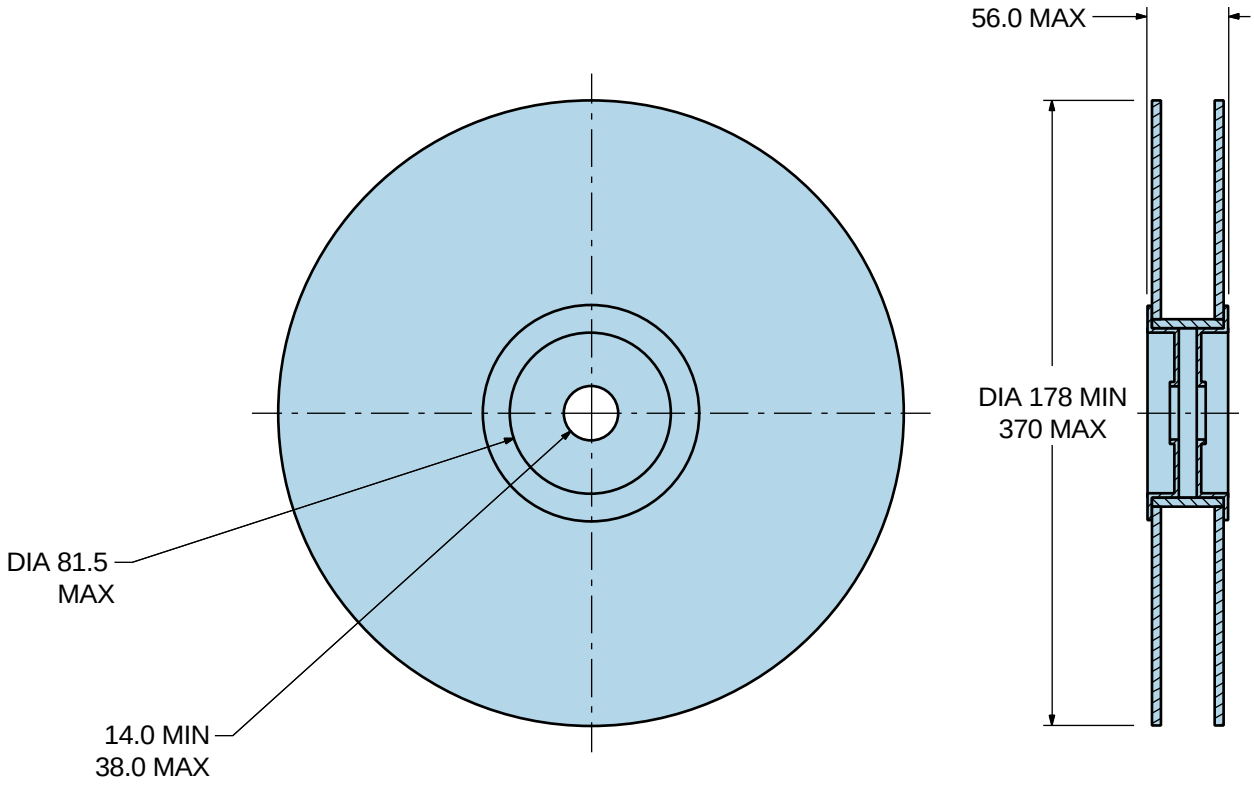
Tape & Reel Dimensions

Quantity Per Reel: 1,000 units



*Compliant to EIA 468B



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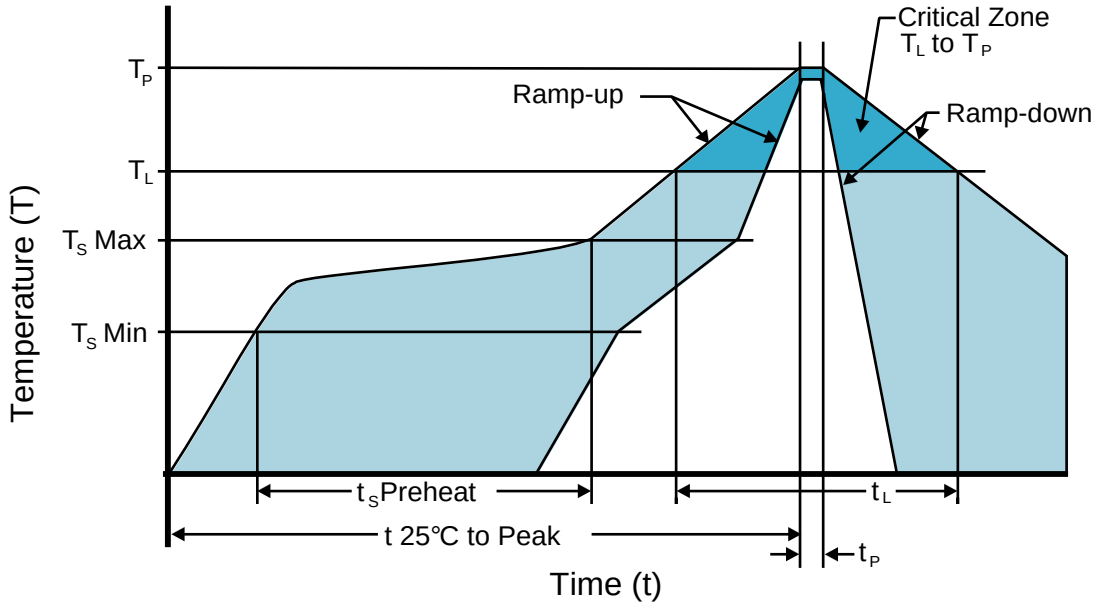
Recommended Solder Reflow Methods



High Temperature Solder Bath (Wave Solder)

T_S MAX to T_L (Ramp-up Rate)	3°C/second Maximum
Preheat	
- Temperature Minimum (T_S MIN)	150°C
- Temperature Typical (T_S TYP)	175°C
- Temperature Maximum (T_S MAX)	200°C
- Time (t_S MIN)	60 - 180 Seconds
Ramp-up Rate (T_L to T_P)	3°C/second Maximum
Time Maintained Above:	
- Temperature (T_L)	217°C
- Time (t_L)	60 - 150 Seconds
Peak Temperature (T_P)	260°C Maximum for 10 Seconds Maximum
Target Peak Temperature (T_P Target)	250°C +0/-5°C
Time within 5°C of actual peak (t_p)	20 - 40 seconds
Ramp-down Rate	6°C/second Maximum
Time 25°C to Peak Temperature (t)	8 minutes Maximum
Moisture Sensitivity Level	Level 1

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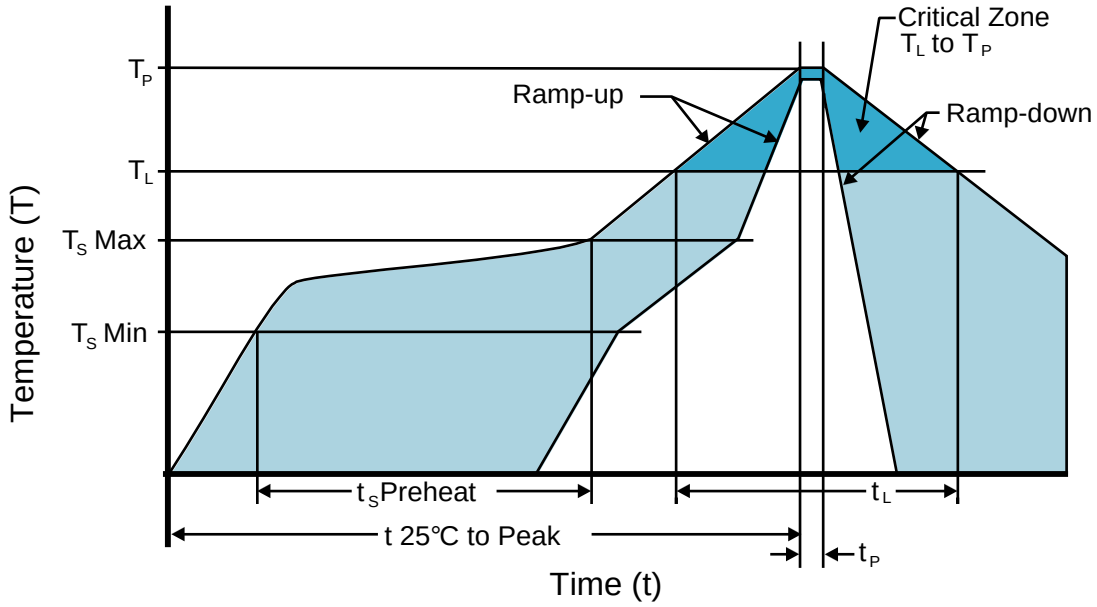
Recommended Solder Reflow Methods



Low Temperature Solder Bath (Wave Solder)

T_S MAX to T_L (Ramp-up Rate)	5°C/second Maximum
Preheat	
- 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
Ramp-up Rate (T_L to T_P)	5°C/second Maximum
Time Maintained Above:	
- Temperature (T_L)	150°C
- Time (t_L)	200 Seconds Maximum
Peak Temperature (T_P)	245°C Maximum
Target Peak Temperature (T_P Target)	245°C Maximum 1 Time / 235°C Maximum 2 Times
Time within 5°C of actual peak (t_p)	5 seconds Maximum 1 Time / 15 seconds Maximum 2 Times
Ramp-down Rate	5°C/second Maximum
Time 25°C to Peak Temperature (t)	N/A
Moisture Sensitivity Level	Level 1

Low Temperature Manual Soldering

185°C Maximum for 10 seconds Maximum, 2 times Maximum.

High Temperature Manual Soldering

260°C Maximum for 5 seconds Maximum, 2 times Maximum.