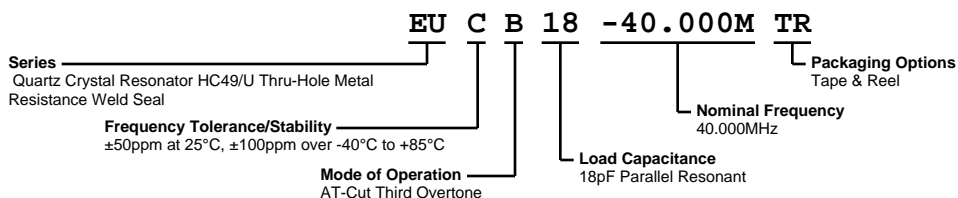


# EUCB18-40.000M TR



## ELECTRICAL SPECIFICATIONS

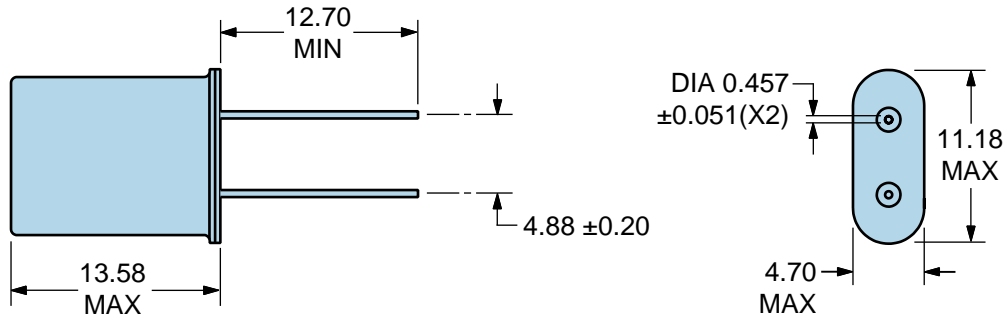
Nominal Frequency	40.000MHz
Frequency Tolerance/Stability	$\pm 50\text{ppm}$ at $25^\circ\text{C}$ , $\pm 100\text{ppm}$ over $-40^\circ\text{C}$ to $+85^\circ\text{C}$
Aging at $25^\circ\text{C}$	$\pm 5\text{ppm/year}$ Maximum
Load Capacitance	18pF Parallel Resonant
Shunt Capacitance	7pF Maximum
Equivalent Series Resistance	40 Ohms Maximum
Mode of Operation	AT-Cut Third Overtone
Drive Level	2mWatts Maximum
Storage Temperature Range	$-40^\circ\text{C}$ to $+125^\circ\text{C}$
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

# EUCB18-40.000M TR

MECHANICAL DIMENSIONS (all dimensions in millimeters)



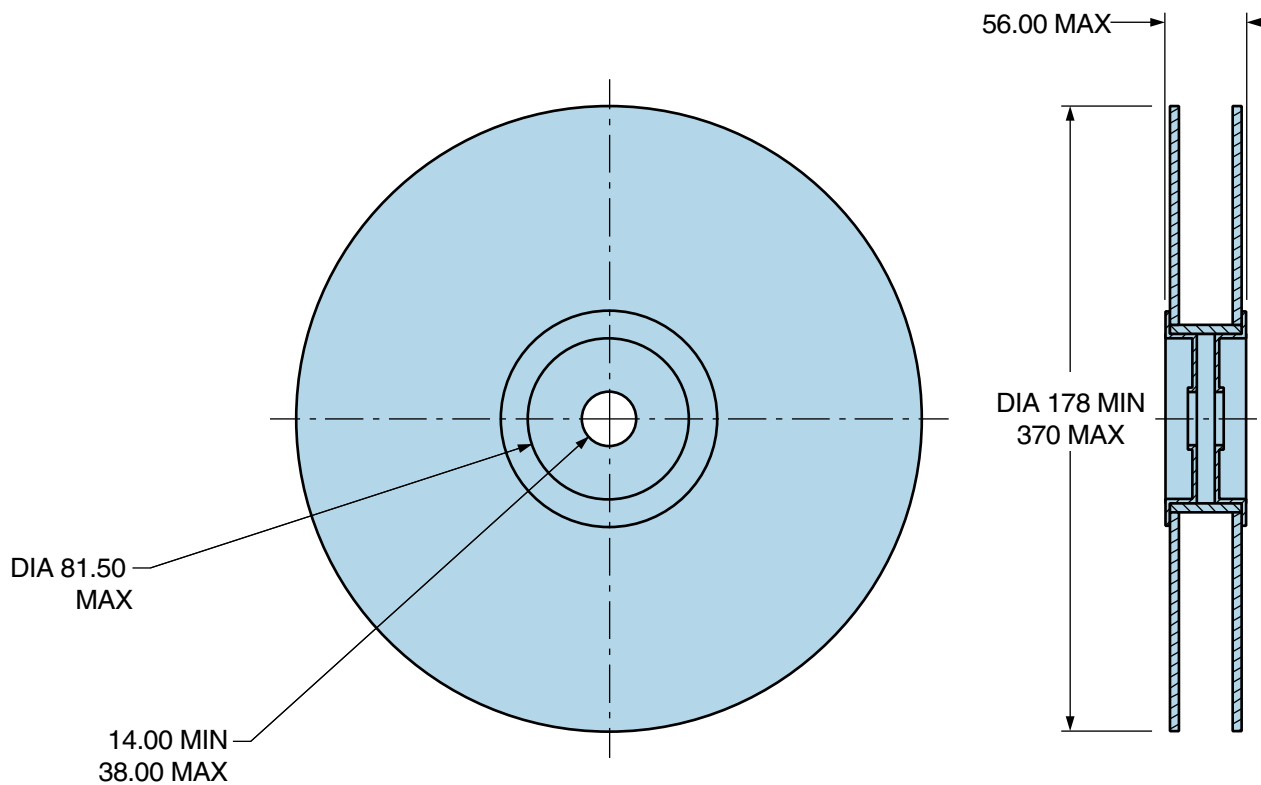
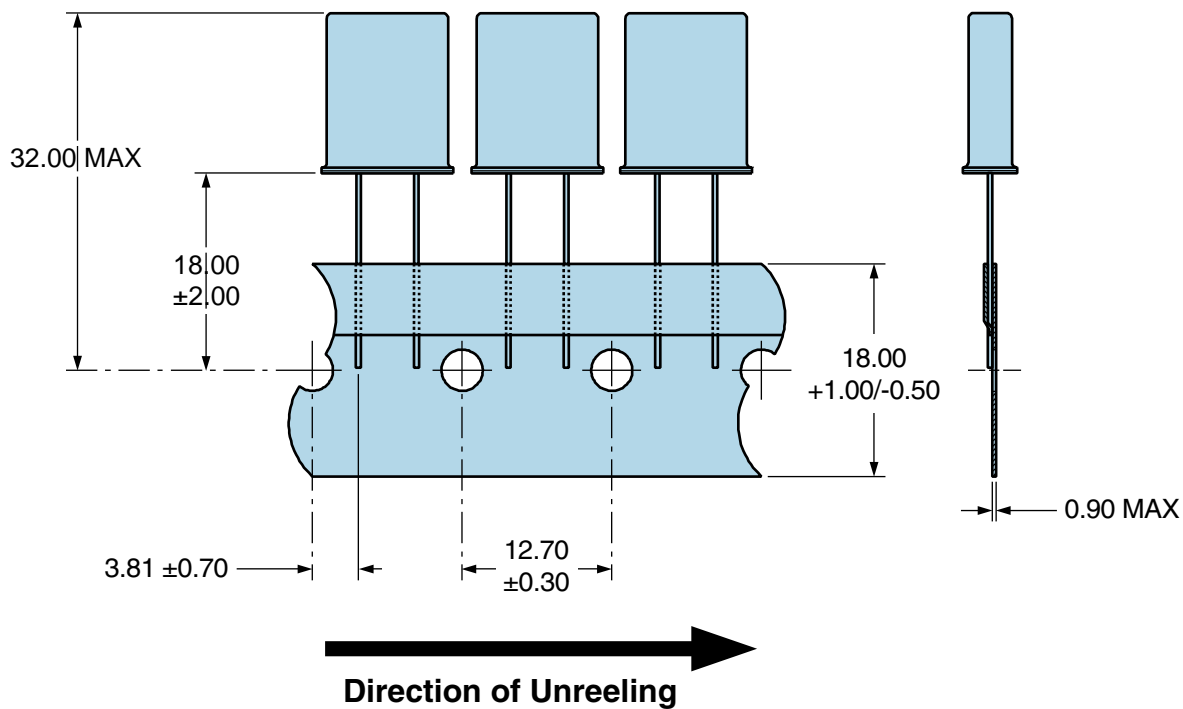
LINE	MARKING
1	ECLIPTEK
2	E40.000M <i>E=Configuration Designator</i>
3	XX <i>XX=Ecliptek Manufacturing Identifier</i>

# EUCB18-40.000M TR

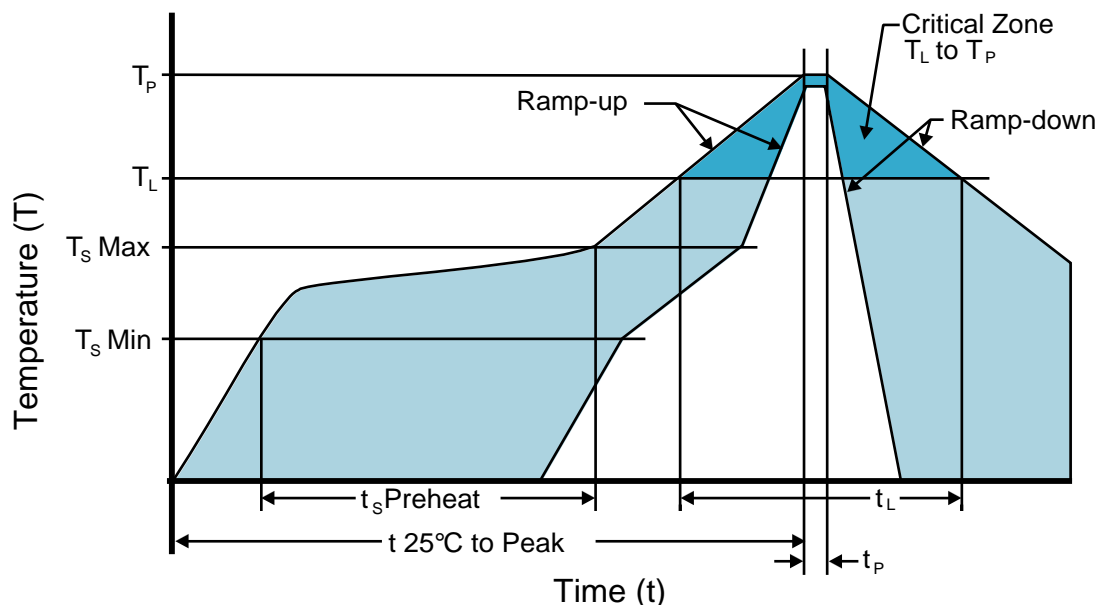
## Tape & Reel Dimensions



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><math>T_S</math> MAX to <math>T_L</math> (Ramp-up Rate)</b>	3°C/second Maximum
<b>Preheat</b>	
- 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
<b>Ramp-up Rate (<math>T_L</math> to <math>T_P</math>)</b>	3°C/second Maximum
<b>Time Maintained Above:</b>	
- Temperature ( $T_L$ )	217°C
- Time ( $t_L$ )	60 - 150 Seconds
<b>Peak Temperature (<math>T_P</math>)</b>	260°C Maximum for 10 Seconds Maximum
<b>Target Peak Temperature (<math>T_P</math> Target)</b>	250°C +0/-5°C
<b>Time within 5°C of actual peak (<math>t_p</math>)</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.)