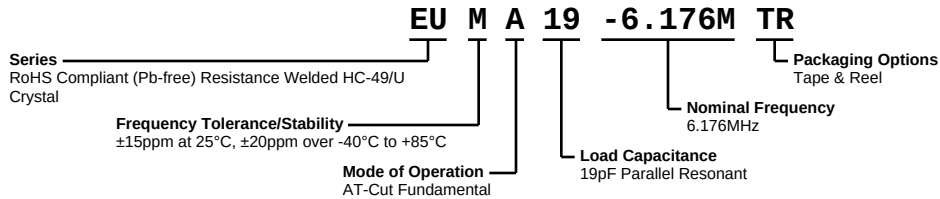


EUMA19-6.176M TR



ECLIPTEK
CORPORATION



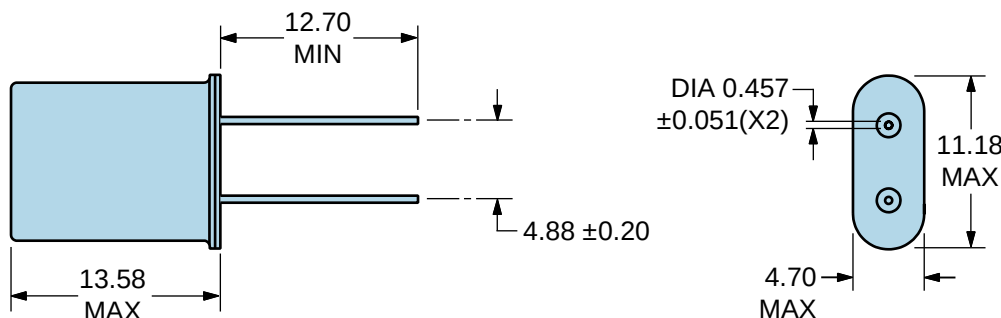
ELECTRICAL SPECIFICATIONS

Nominal Frequency	6.176MHz
Frequency Tolerance/Stability	±15ppm at 25°C, ±20ppm over -40°C to +85°C
Aging at 25°C	±5ppm/year Maximum
Load Capacitance	19pF Parallel Resonant
Shunt Capacitance (C0)	7pF Maximum
Equivalent Series Resistance	50 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)

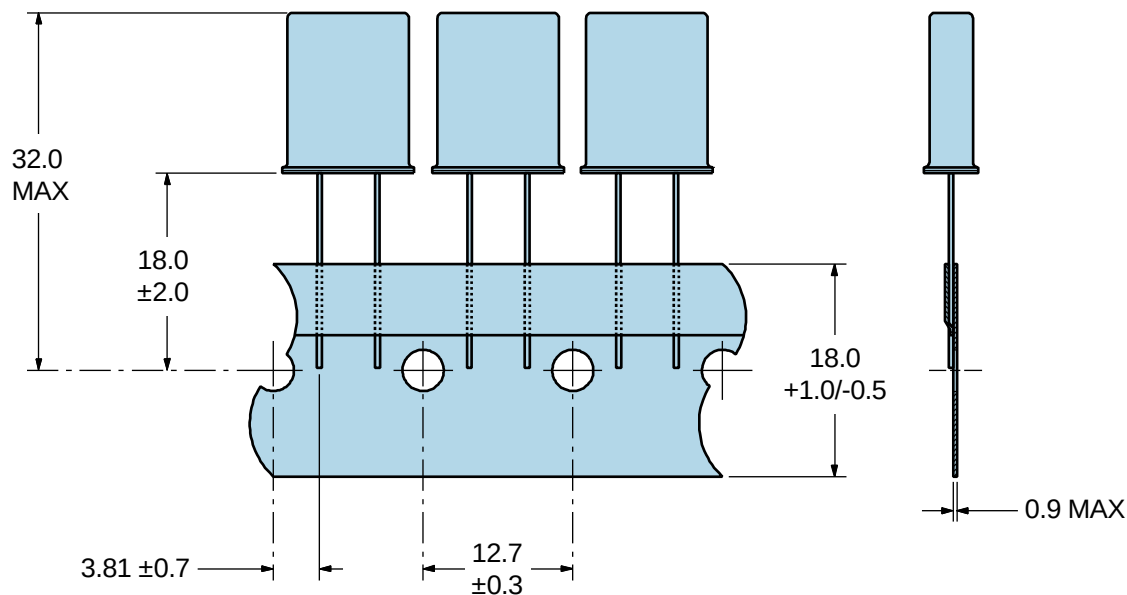


LINE	MARKING
1	ECLIPTEK
2	E6.176M E=Configuration Designator
3	XX XX=EclipseTek Manufacturing Code

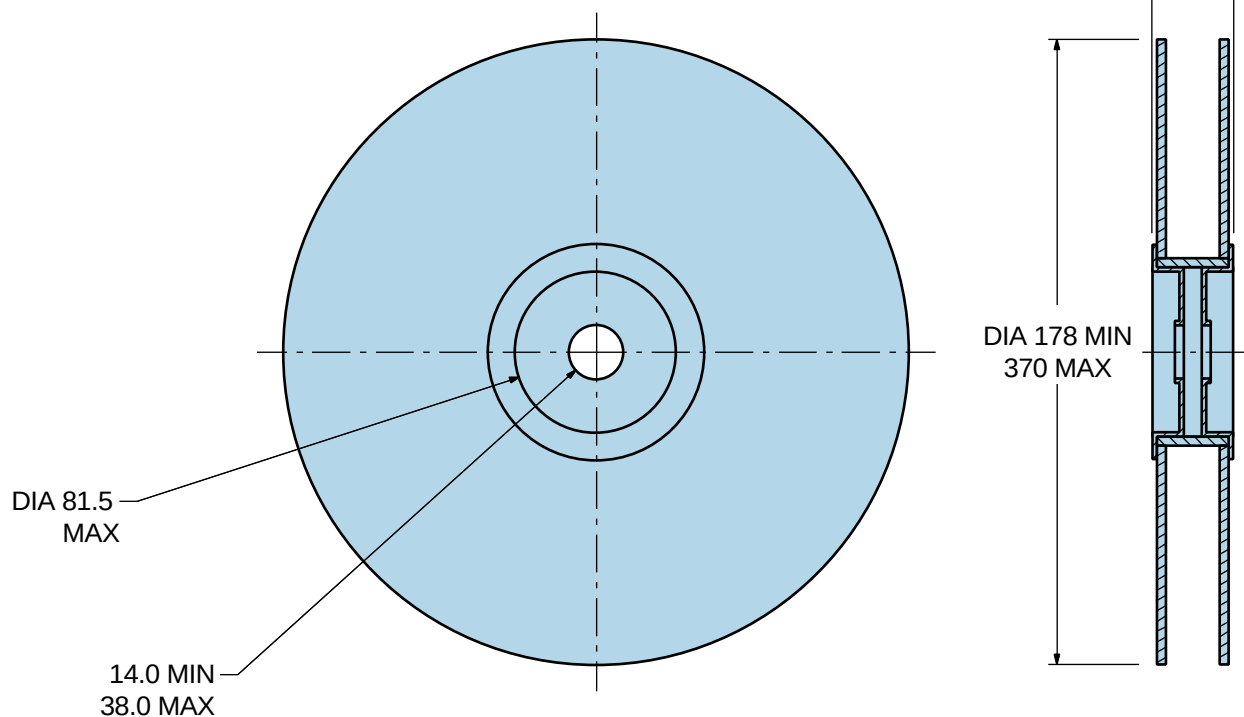
EUMA19-6.176M TR

Tape & Reel Dimensions

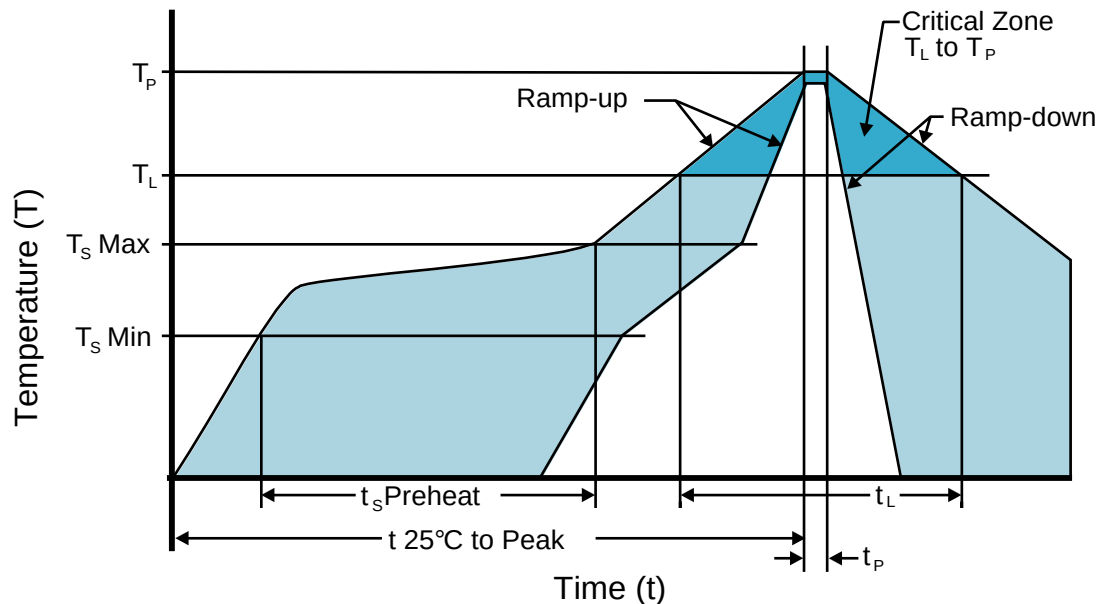
Quantity Per Reel: 1,000 units



*Compliant to EIA 468B



Recommended Solder Reflow Methods



High Temperature Solder Bath (Wave Solder)

T _s MAX to T _L (Ramp-up Rate)	3°C/second Maximum
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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
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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
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Target Peak Temperature (T _p Target)	250°C +0/-5°C
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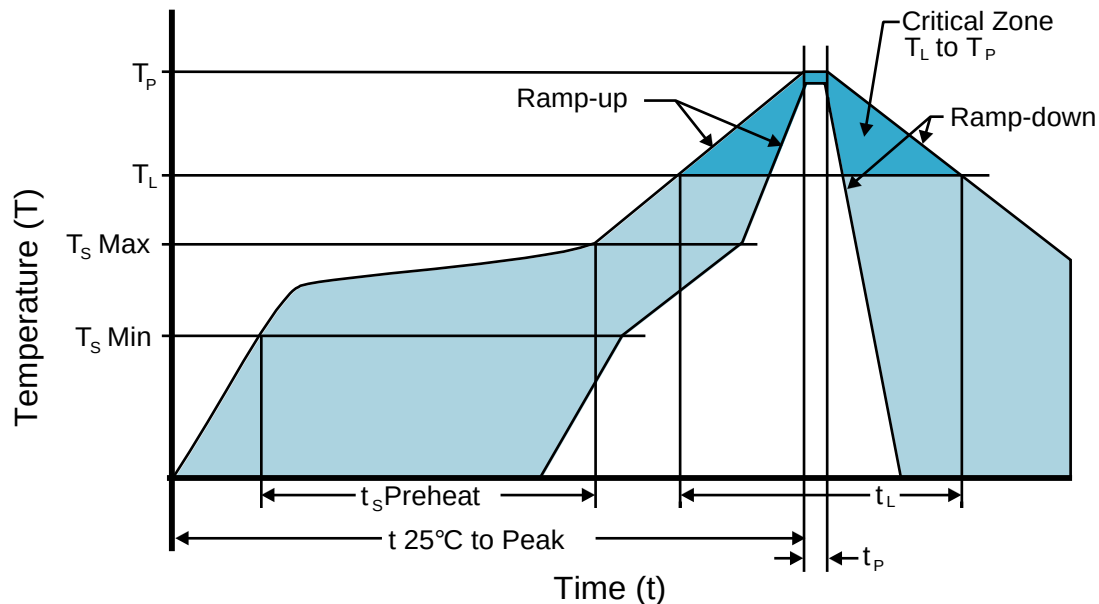
Time within 5°C of actual peak (t _p)	20 - 40 seconds
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Ramp-down Rate	6°C/second Maximum
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Time 25°C to Peak Temperature (t)	8 minutes Maximum
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Moisture 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.