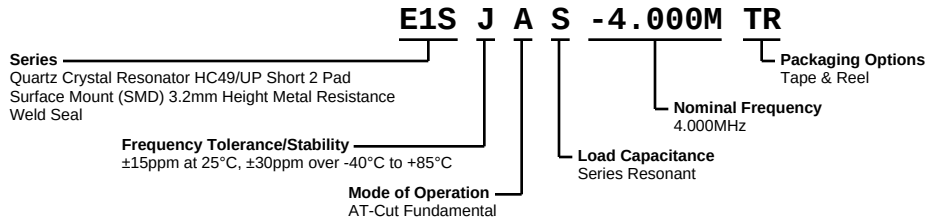


E1SJAS-4.000M TR



ELECTRICAL SPECIFICATIONS

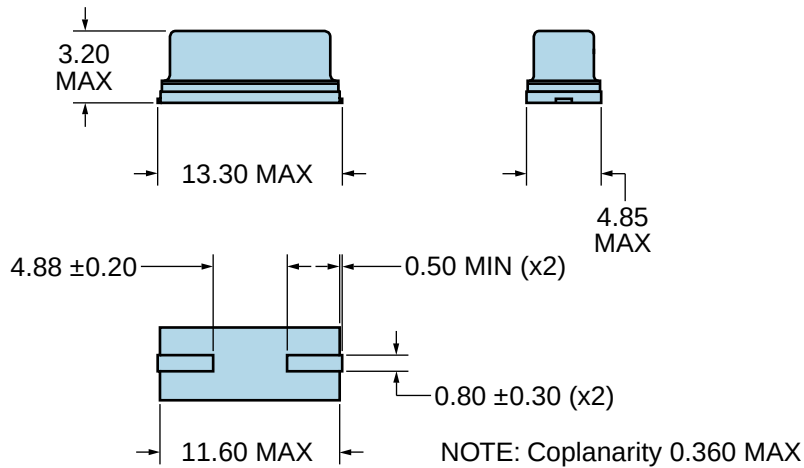
Nominal Frequency	4.000MHz
Frequency Tolerance/Stability	±15ppm at 25°C, ±30ppm over -40°C to +85°C
Aging at 25°C	±5ppm/year Maximum
Load Capacitance	Series Resonant
Shunt Capacitance	7pF Maximum
Equivalent Series Resistance	200 Ohms Maximum
Mode of Operation	AT-Cut Fundamental
Drive Level	1mWatt Maximum
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
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

E1SJAS-4.000M TR

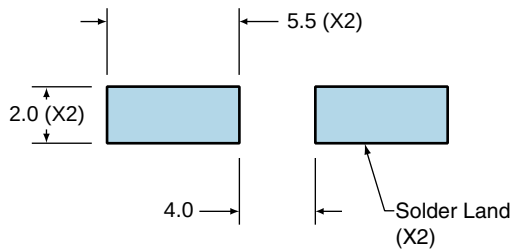
MECHANICAL DIMENSIONS (all dimensions in millimeters)



LINE	MARKING
1	E4.000M <i>E=Ecliptek Designator</i>

Suggested Solder Pad Layout

All Dimensions in Millimeters



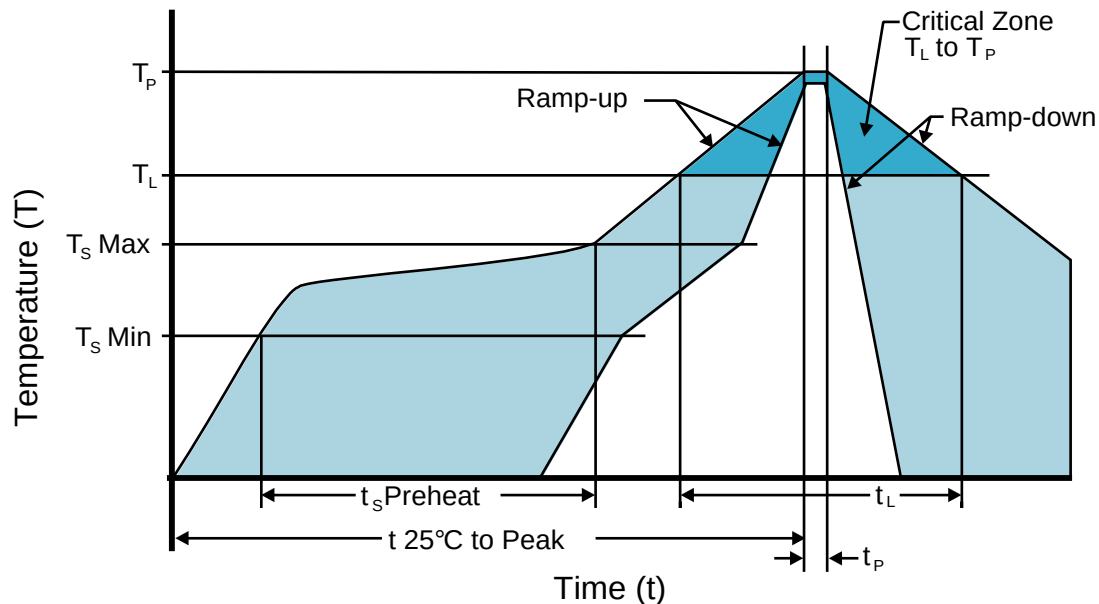
All Tolerances are ±0.1

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Technical drawing of a cable reel drum cross-section and side view. The cross-section (left) shows a blue drum with a central core and a winding layer. Dimensions include a total width of 24.00 ± 0.30 , a central core width of 11.50 ± 0.10 , and a winding layer thickness of 1.75 ± 0.10 . The drum has a central hole with a diameter of $\text{DIA } 1.50 \text{ MIN}$ and a central core with a diameter of $\text{DIA } 1.50 + 0.10 / - 0.00$. The winding layer has a thickness of 0.60 MAX and a central core with a diameter of 0.10 MAX . The drum is divided into three sections by vertical lines, with dimensions 4.00 ± 0.10 and 2.00 ± 0.10 indicating the width of the sections. The side view (right) shows the drum's profile with dimensions $B0$ and $K0$ indicating the height and width of the drum. A large arrow at the bottom indicates the **Direction of Unreeling**.



Recommended Solder Reflow Methods



High Temperature Infrared/Convection

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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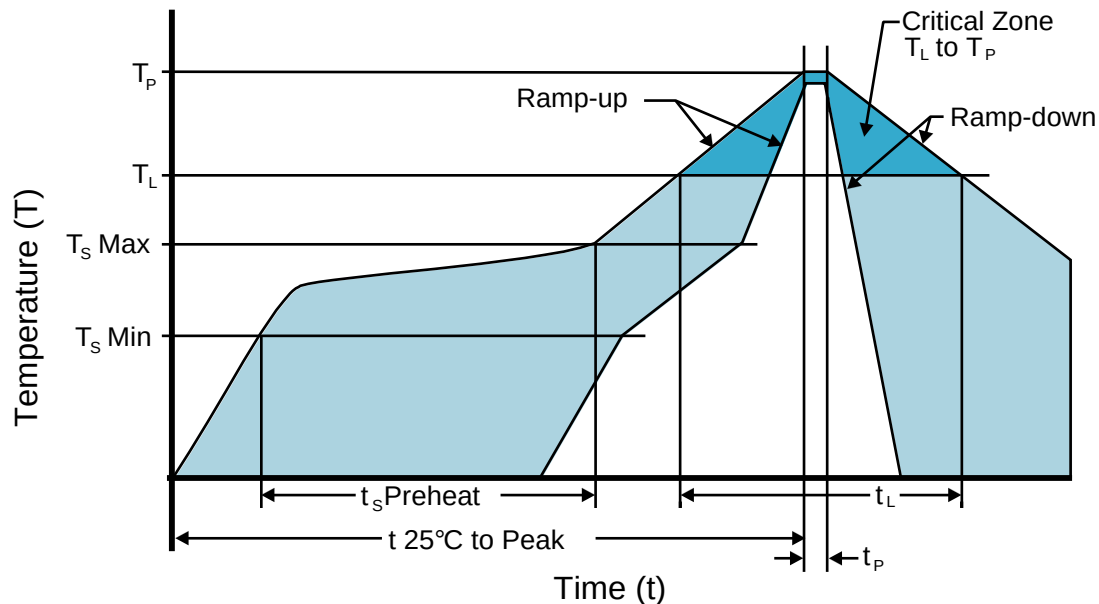
Time within 5°C of actual peak (t _p)	20 - 40 seconds
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Ramp-down Rate	6°C/second Maximum
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Time 25°C to Peak Temperature (t)	8 minutes Maximum
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Moisture Sensitivity Level	Level 1
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Recommended Solder Reflow Methods



Low Temperature Infrared/Convection 245°C

T_s MAX to T_L (Ramp-up Rate)	5°C/second Maximum
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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
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Time Maintained Above:

- Temperature (T_L)	150°C
- Time (t_L)	200 Seconds Maximum

Peak Temperature (T_P)	245°C Maximum
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Target Peak Temperature (T_P Target)	245°C Maximum 2 Times / 230°C Maximum 1 Time
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Time within 5°C of actual peak (t_p)	10 seconds Maximum 2 Times / 80 seconds Maximum 1 Time
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Ramp-down Rate	5°C/second Maximum
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Time 25°C to Peak Temperature (t)	N/A
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Moisture Sensitivity Level	Level 1
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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.