

E1SAA18-25.579M TR



ITEM DESCRIPTION

Quartz Crystal Resonator HC49/UP Short 2 Pad Surface Mount (SMD) 3.2mm Height Metal Resistance Weld Seal 25.579MHz ± 50 ppm at 25°C, ± 100 ppm over 0°C to +70°C 18pF Parallel Resonant

ELECTRICAL SPECIFICATIONS

Nominal Frequency	25.579MHz
Frequency Tolerance/Stability	± 50 ppm at 25°C, ± 100 ppm over 0°C to +70°C
Aging at 25°C	± 5 ppm/year Maximum
Load Capacitance	18pF Parallel Resonant
Shunt Capacitance	7pF Maximum
Equivalent Series Resistance	40 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

3.20 MAX

13.30 MAX

4.85 MAX

4.88 ± 0.20

0.50 MIN (x2)

0.80 ± 0.30 (x2)

11.60 MAX

NOTE: Coplanarity 0.360 MAX

Figure 1 illustrates the dimensions of the test specimen. The specimen is a rectangular pad with a height of 2.0×2 and a width of 4.0 . The distance between the center of the pad and the edge of the test area is 5.5×2 . The label "Solder Land (X2)" points to the bottom edge of the pad.

1-800-ECLIPTEK or 714.433.1200

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Tape & Reel Dimensions

Quantity Per Reel: 1,000 units

All Dimensions in Millimeters

Compliant to EIA-481



Recommended Solder Reflow Methods



High Temperature Infrared/Convection

Ts MAX to Tl (Ramp-up Rate) 3°C/Second Maximum

Preheat

- Temperature Minimum (Ts MIN) 150°C
- Temperature Typical (Ts TYP) 175°C
- Temperature Maximum (Ts MAX) 200°C
- Time (ts MIN) 60 - 180 Seconds

Ramp-up Rate (Tl to Tp) 3°C/Second Maximum

Time Maintained Above:

- Temperature (Tl) 217°C
- Time (tL) 60 - 150 Seconds

Peak Temperature (Tp) 260°C Maximum for 10 Seconds Maximum

Target Peak Temperature (Tp Target) 250°C +0/-5°C

Time within 5°C of actual peak (tp) 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

Recommended Solder Reflow Methods



Low Temperature Infrared/Convection 245°C

$T_S \text{ MAX to } T_L$ (Ramp-up Rate) 5°C/Second Maximum

Preheat

- Temperature Minimum ($T_S \text{ MIN}$) N/A
- Temperature Typical ($T_S \text{ TYP}$) 150°C
- Temperature Maximum ($T_S \text{ MAX}$) N/A
- Time ($t_s \text{ MIN}$) 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 ($T_P \text{ Target}$) 245°C Maximum 2 Times / 230°C Maximum 1 Time

Time within 5°C of actual peak (t_P) 10 Seconds Maximum 2 Times / 80 Seconds Maximum 1 Time

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.