

SMD CRYSTAL SPECIFICATION

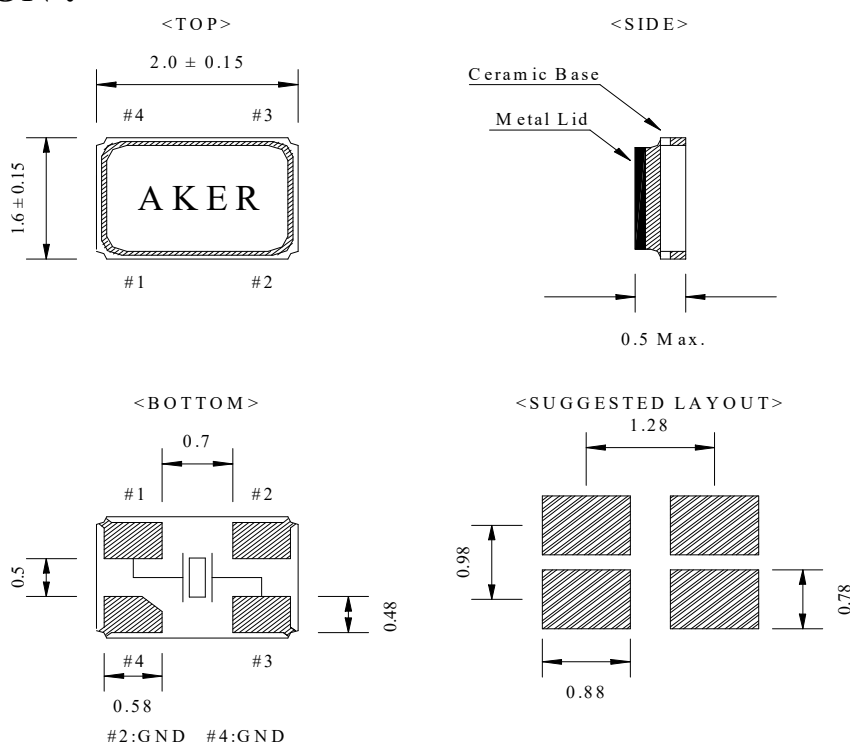
1 . ELECTRICAL CHARACTERISTICS

- Oscillation Mode : Fundamental
- Cutting Mode : AT CUT
- Measurement Equipment : 250B(Measured FL)
- Insulation Resistance : More than 500M ohms at DC 100V

Parameters	Symbol	Electrical Spec				Notes
		Min.	Typ.	Max.	Units.	
Nominal Frequency	FL	24.000000			MHz	
Frequency Tolerance		±10			ppm	at 25°C ± 3°C
Frequency Stability		±50			ppm	Operating Temp (Refer 25°C)
Load Capacitance	CL	8			pF	
Aging		±2			ppm	First Year at 25°C
Operating Temperature		-40	~	125	°C	
Storage Temperature Range		-55	~	150	°C	
Drive Level	DL		50	100	uW	
Equivalent Series Resistance	ESR			80	Ω	@Series
Shunt Capacitance	C0			3	pF	

2 . DIMENSION :

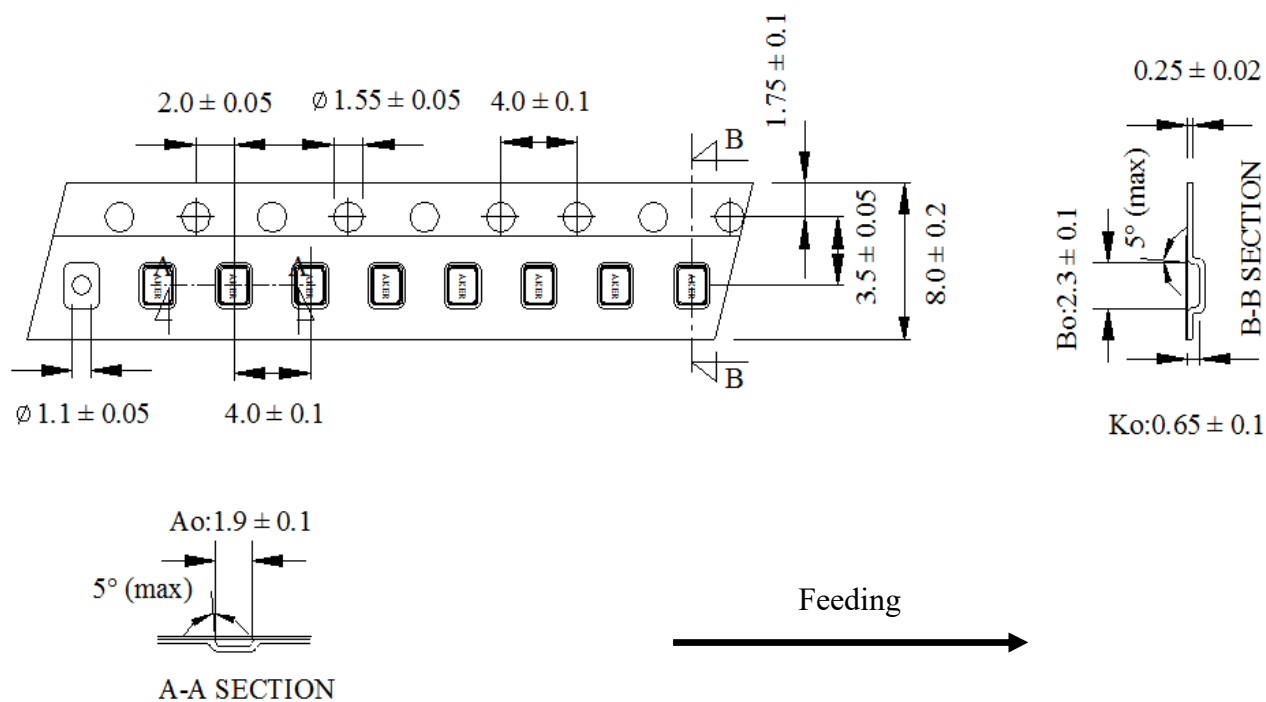
(Unit : mm)



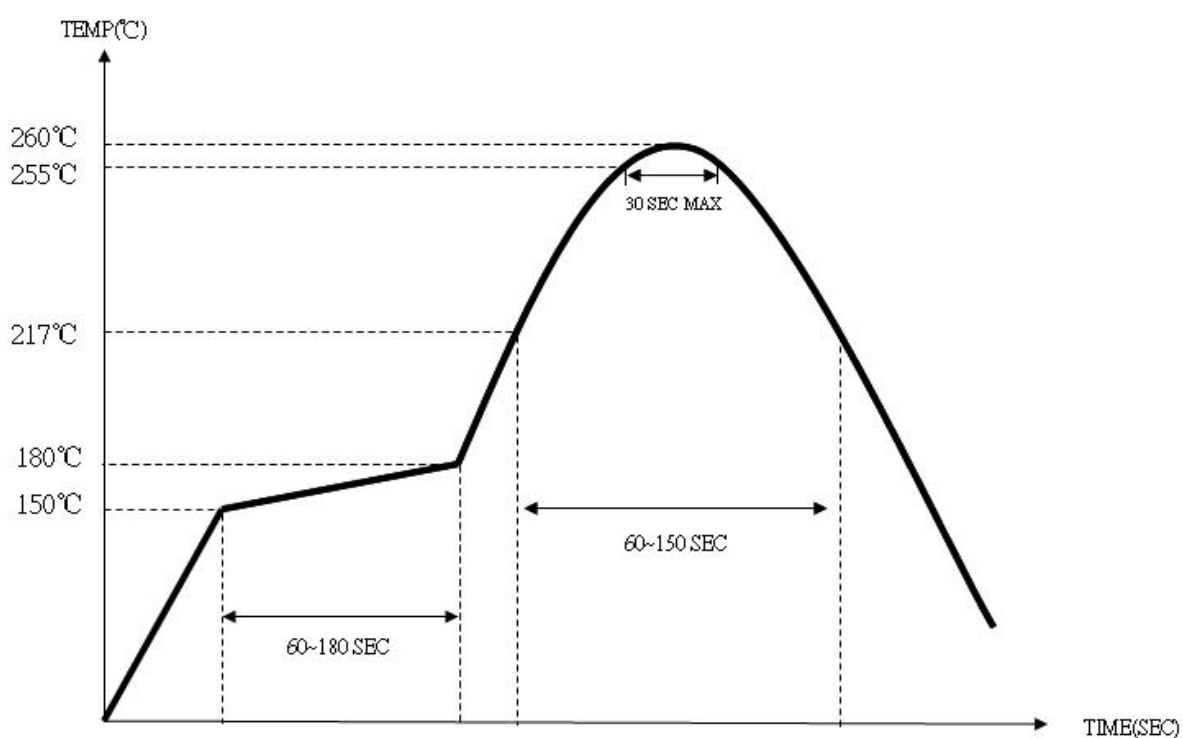
3. PACKING :

TAPE SPECIFICATION

(Unit : mm)



4. SOLDERING REFLOW PROFILE :





Aker P/N : C1E-24.000-8-1050-A-X1-R

RoHS compliance IATF 16949 Certified

MSL:Level 1 AEC-Q200 Qualified

5 . MECHANICAL PERFORMANCE

TEST ITEMS	TEST METHODS AND TEST CONDITION	PERFORMANCE
5.1 Temperature Cycling	-55±3℃/30min maximum~+125±3℃/30min maximum , 1000cycles	To satisfy the electrical performance .
5.2 Operational Life	125℃±3℃ , 1000hrs±12hrs	
5.3 Biased Humidity	85℃±5℃&85%±5%R.H. , 1000±12hrs	
5.4 Resistance To Soldering Heat Test	Reflow test 2 times.	
5.5 High Temperature Exposure	150℃±3℃ , 1000hrs±12hrs	
5.6 Vibration Test	Freq.range: 10~2000Hz , Peak to peak amplitude:1.52mm Peak acceleration:5G (49m/s ²) , 3 direction(X, Y,Z) , 20min 12cycles each of 3 orientations.	
5.7 Mechanical Shock	100G , 6mS , 3 times for each direction(X, Y, Z) , 3 cycles	
5.8 Physical Dimension	Verify physical dimensions to the applicable device detail specification.	
5.9 Solderability	260℃ , Coated > 95%	
5.10 Board Flex	PCB=100*40(mm) , Bending=2 mm (min) , Duration=60+5/-0 sec	
5.11 External Visual	Inspect device construction and marking.	
5.12 Terminal Strength	A force of 17.7N for 60 seconds.	