AKER TECHNOLOGY	Aker P/N :	C3E-24.000-12-1050-A-X1-R
	RoHS compliance MSL:Level 1	IATF 16949 Certified AEC-Q200 Qualified

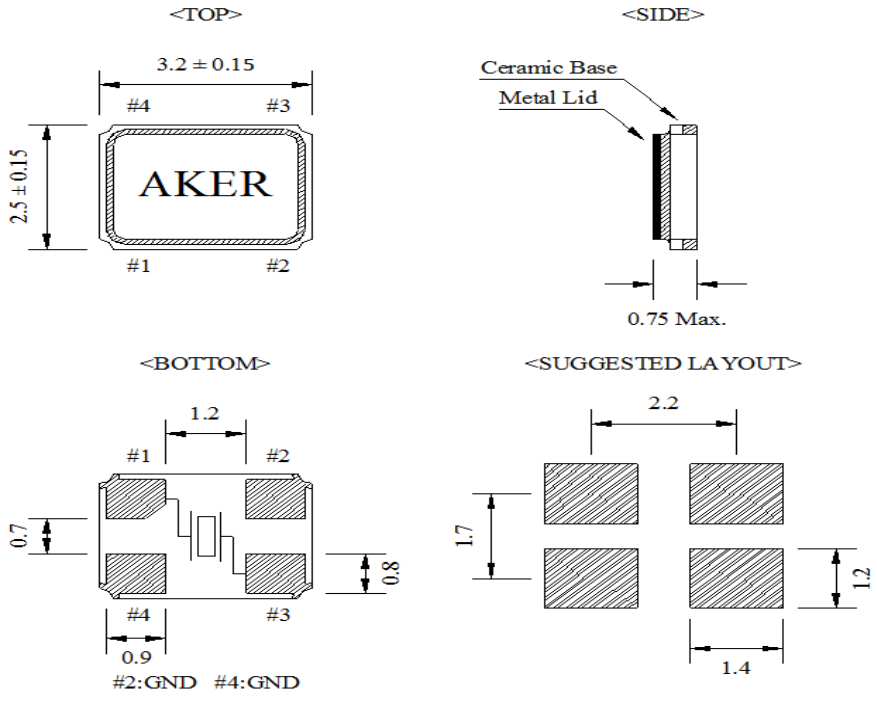
SMD CRYSTAL SPECIFICATION

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℃ ± 3℃
Frequency Stability			±50		ppm	Operating Temp (Refer 25℃)
Load Capacitance	CL		12		pF	
Aging			±3		ppm	First Year at 25℃
Operating Temperature		-40	~	125	℃	
Storage Temperature Range		-55	~	150	℃	
Drive Level	DL			100	uW	
Equivalent Series Resistance	ESR			50	Ω	@Series
Shunt Capacitance	C0			3	pF	

2 . DIMENSION : (Unit : mm)

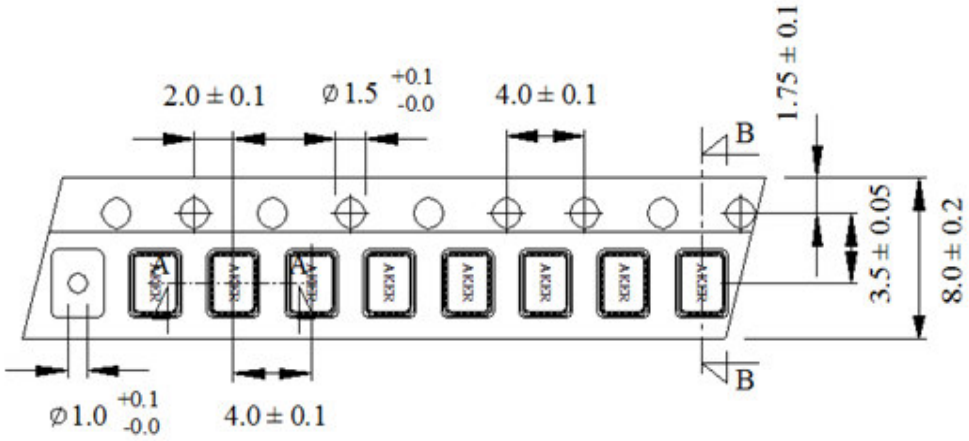


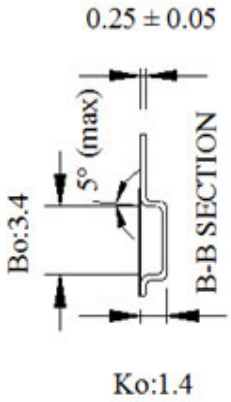
Please kindly be noted that AKER DO NOT guarantee parts quality which involves human security application.

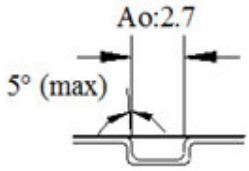
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	RoHS compliance MSL:Level 1	IATF 16949 Certified AEC-Q200 Qualified

3 . PACKING :

TAPE SPECIFICATION **(Unit : mm)**



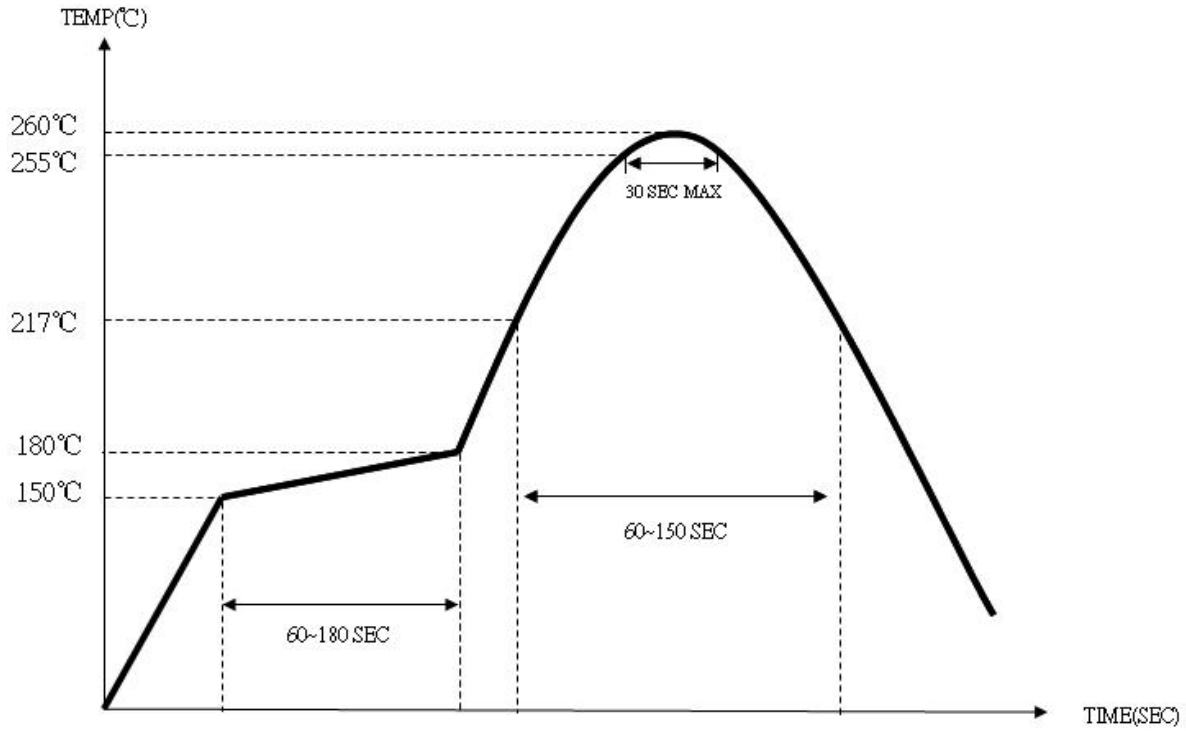




A-A SECTION

Feeding →

4 . SOLDERING REFLOW PROFILE :



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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°C，1000hrs±12hrs	
5.3 Biased Humidity	85°C±5°C&85%±5%R.H.，1000±12hrs	
5.4 Resistance To Soldering Heat Test	Reflow test 2 times.	
5.5 High Temperature Exposure	150℃±3°C，1000hrs±12hrs	
5.6 Vibration Test	Freq.range: 10~2000Hz，Peak to peak amplitude:1.52mm Peak acceleration:5G (49m/s2)，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.	