

CRYSTAL UNITS SPECIFICATION

Product Type : SK-5M

Model : 16.000MHZ

Description : 5032/XTAL/16.000MHZ/13PF/30PPM

SKC P/N : FSK5M16000M13

SPEC No. : 1 – 220803 – FSK5M16000M13



DATE : 3-Aug-22

Designer : *Aaron Lee*

Checked By : *Tom*

Approved By : *Sam*

REVISION HISTORY

Rev	Revise Page	Revise Contents	Date	Ref. No.	Reviser
A	N/A	Initial Release	3-Aug-22	N/A	Aaron Lee

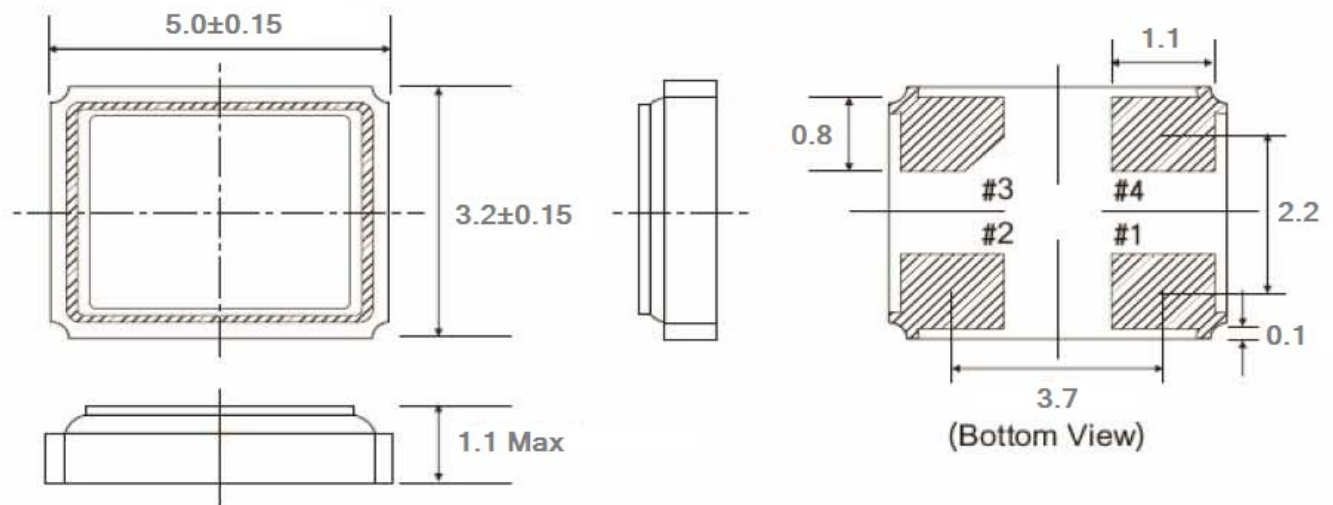
CRYSTAL UNITS SPECIFICATION

■ ELECTRICAL CHARACTERISTICS

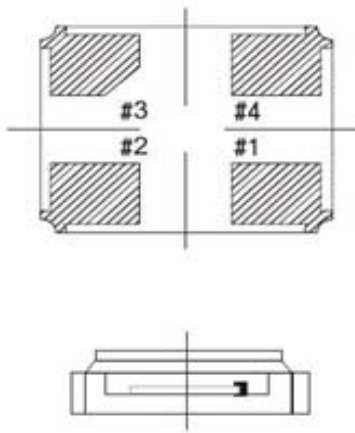
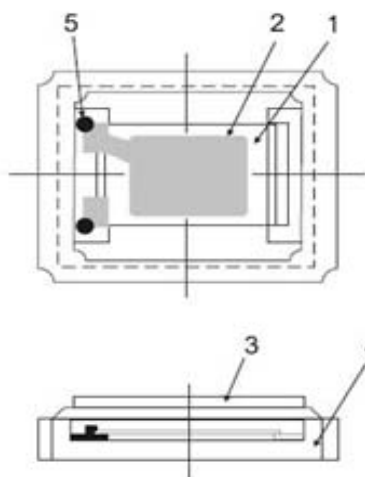
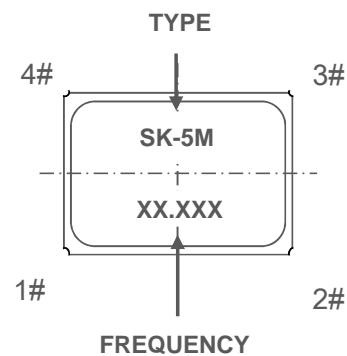
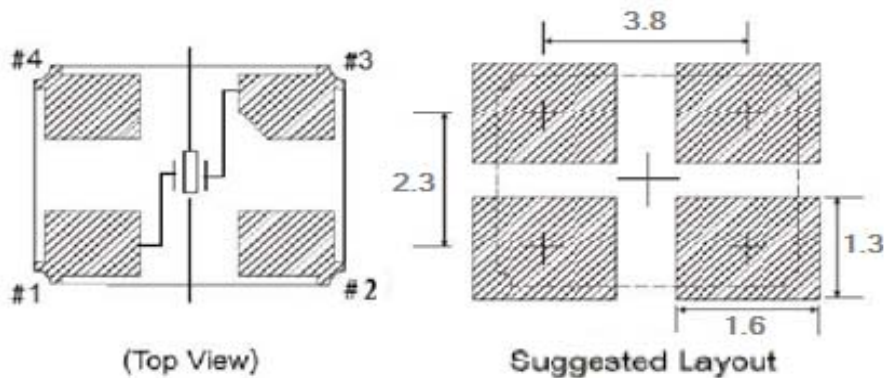
1	Holder type		SK-5M
2	Oscillation mode		<input checked="" type="checkbox"/> Fundamental <input type="checkbox"/> 3rd Overtone <input type="checkbox"/> 5th Overtone
3	Crystal cutting type		AT CUT
4	Nominal frequency	F_L	16.000MHz
5	Frequency stability	Tol	± 30 ppm (ref at 25°C)
6	Operating temperature range	T_{OPR}	-20°C to +70°C
7	Storage temperature range		-40°C to +85°C
8	Temperature characteristic		± 30 ppm in item 6
9	Load capacitance	C_L	13 PF \pm 0.2PF
10	Equivalent series resistance	ESR	30 Ohms max.
11	Drive level	DL	100 uW
12	Shunt capacitance	C_0	5.0 PF max.
13	Aging rate per year		Less than ± 3 ppm / year
14	Insulation resistance		500M Ohms min. at DC 100V \pm 10V
15	Test circuit		Measured in S&A 250B

■ DIMENSIONS

(Unit:mm)

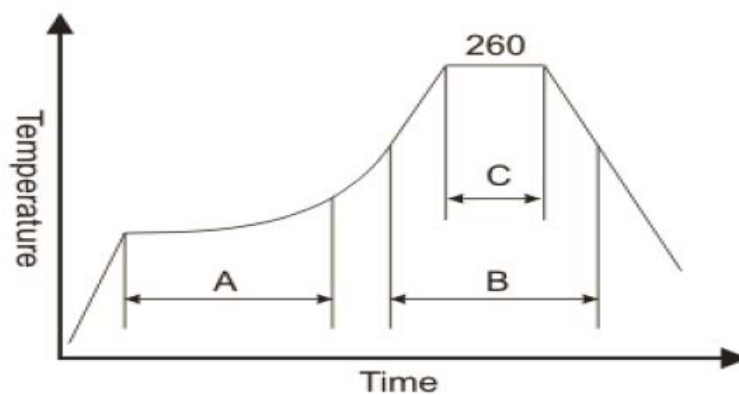


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1	Quartz Blank
2	Electrode
3	Lid
4	Base
5	Conductive adhesive

■ SUGGESTED REFLOW PROFILE



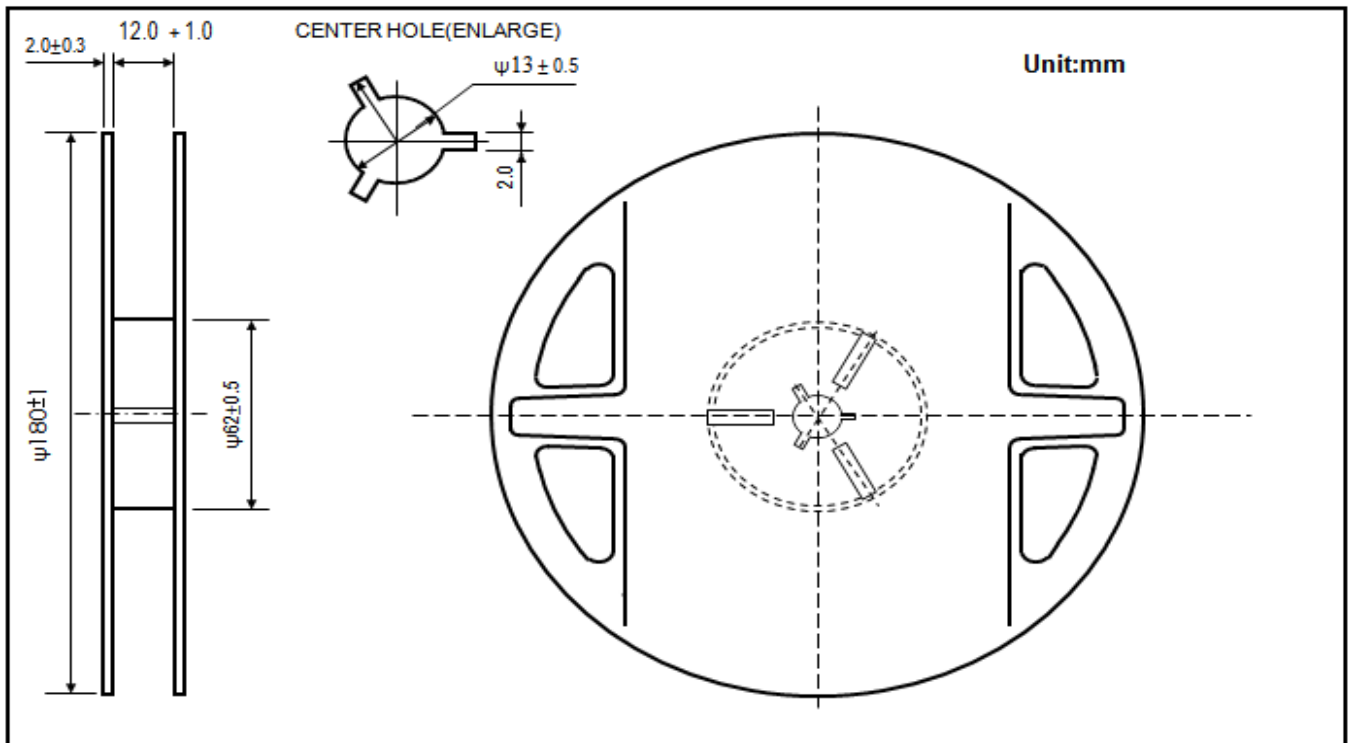
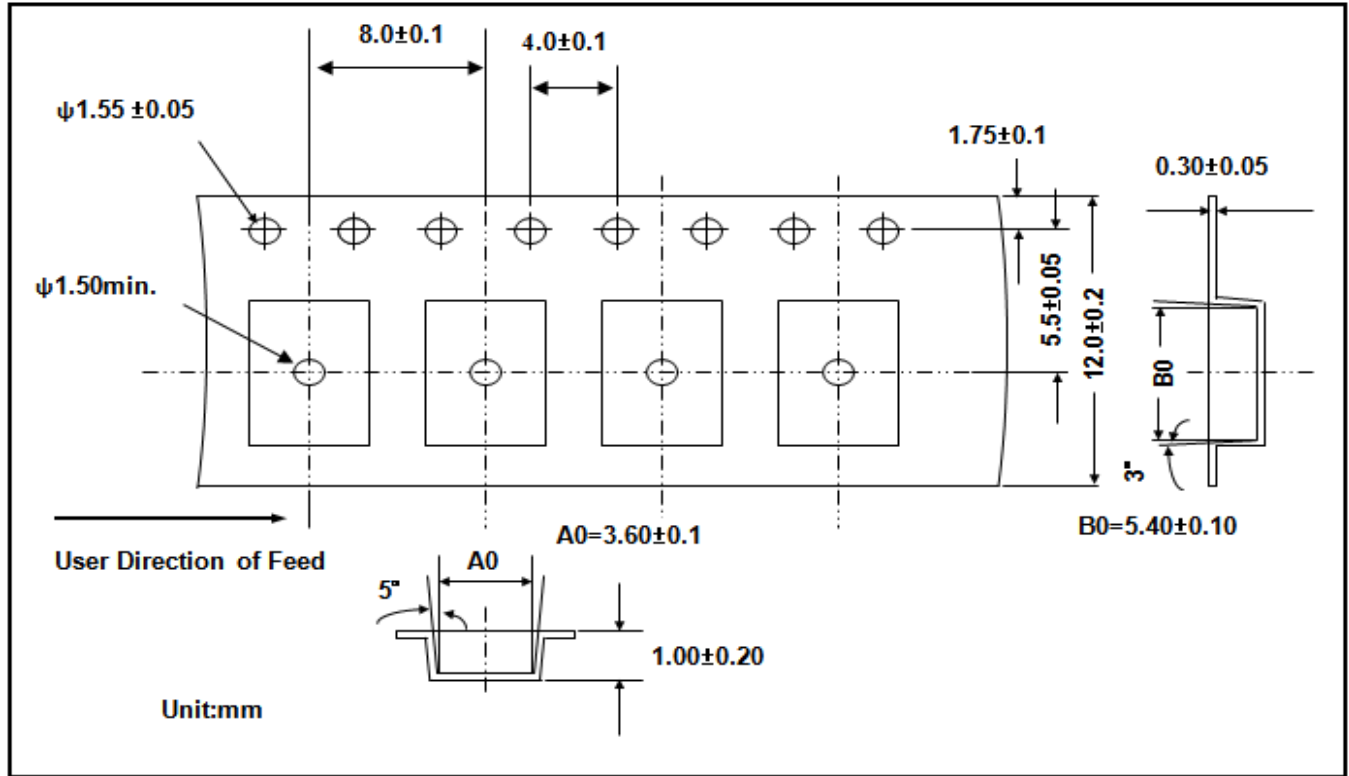
Note:

	Stage	Temperature	Time
A	Preheat	160~180°C	60~120 Sec
B	Primary Heat	220°C	60 Sec
C	Peak	260°C±5°C	10 Sec

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■ EMOSS CARRIER TAPE & REEL

(1000pcs / per reel)



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A. MECHANICAL ENDURANCE : Provide that measurement shall be carried out after letting it alone in the room temperature for 1 hour.			
1	Item	CONDITIONS	SPECIFICATION
	Drop	Should be satisfied after dropping 3 times from the high of 50cm onto hard wooden board of thickness more than 30mm.	Freq. drift \pm 5ppm max.
2	Vibration	Should be satisfied after supplying following vibration. (1) Vibration frequency : 10~55Hz (2) Full cycle : 0.8mm (3) Direction : X.Y.Z (4) Time : 2 hours / each direction	Freq. drift \pm 5ppm max.
3	Solder ability	3 sec. Dip in 245°C \pm 5°C solder. (Use ROSIN type flux for solder.)	More than 90% of lead shall be covered by solder.
4	Seal	Less than 1.0x10 ⁻⁸ Pa-m ³ /sec. by Helium leak detector. Also, no serial bubble is observed by Fluorinate tests.	

B. ENVIRONMENTAL ENDURANCE : Provide that measurement shall be carried out after letting it alone in the room temperature for 1 hour.		
Item		Test Methods
1	Humidity	Should be satisfied after letting it alone at 60°C \pm 2 °C in humidity of RH 90-95% for 240 hours.
2	Storage in Low Temp.	Should be satisfied after letting it alone at -40°C \pm 2 °C for 240 hours.
3	Storage in High Temp.	Should be satisfied after letting it alone at +85°C \pm 2 °C for 240 hours.
4	Temperature cycles	-40°C \pm 2°C (30min) \longleftrightarrow +85°C \pm 2°C (30min) for 20 cycles.
Specifications : Freq. Drift \pm 5ppm and equivalent resistances shall be within the specification after the test		