

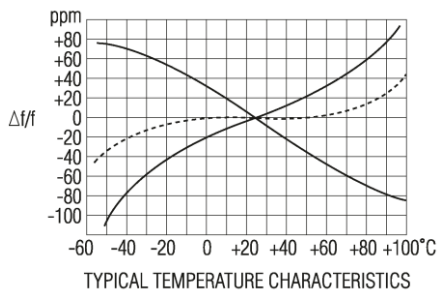
TITLE

# CRYSTAL SPECIFICATIONS

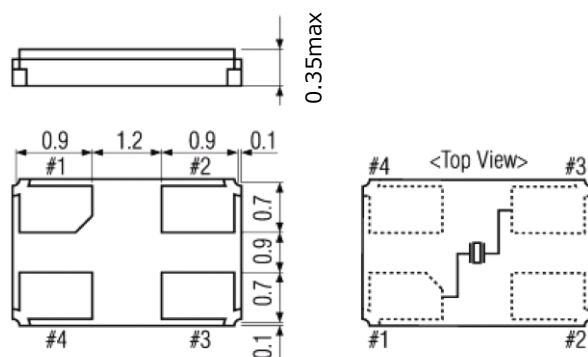
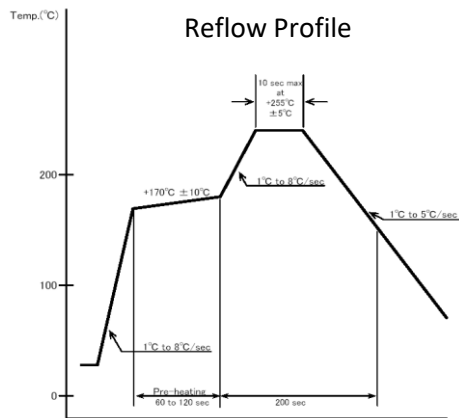
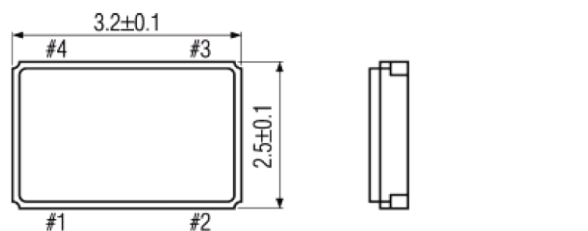
DATE

May 13, 2019

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|--|--|
| 1. Part No. :                          | 32Mfff*-8(ALP)<br>(*Where "fff" is a frequency designator. |
| 2. Nominal frequency (F) :             | 16.000000 MHz to 50.000000 MHz                             |
| 3. Package type :                      | 32SMX(ALP)   |
| 4. Frequency tolerance (df/F) :        | ±30 ppm (±0.003%) at +25°C ±3°C                            |
| 5. Temperature stability (df/F) :      | ±50 ppm (±0.005%) over -20°C to +70°C                      |
| 6. Load capacitance (CL) :             | 8 pF ±0.2 pF   |
| 7. Equivalent series resistance (Rs) : | 100 ohms max.  |
| 8. Shunt capacitance (Co) :            | 5.0 pF max. (0.4 pF, Typical)                              |
| 9. Drive level (P) :                   | 100 μW max. (10 μW for testing)                            |
| 10. Aging (df/F) :                     | max. ±5 ppm/year at +25°C ±3°C                             |
| 11. Oscillation mode :                 | At-cut fundamental   |
| 12. Insulation resistance :            | 500M ohms min. at 100V DC                                  |
| 13. Operating temperature range :      | -20°C to +70°C   |
| 14. Storage temperature range :        | -40°C to +85°C   |
| 15. Reflow soldering condition :       | 10 sec. max. at +250°C ±10°C                               |
| 16. Crystal test equipment :           | 250B (Saunders, U.S.A.)                                    |
| 17. Outline dimensions :               | See below  |



32SMX(ALP)  
RoHS Compliant (Pb-free)



Remarks: Reflow peak temperature is +260°C max. for 10 seconds.

(#2 & #4 : Grounded to metal lid)

mm

ISSUED		CHECKED		APPROVAL	
SMI '19/05/13 石山	A. Ishiyama	SMI '19/05/13 竹内	Kazuto	SMI '19/05/13 三浦	
		ITEM. QUARTZ CRYSTAL UNITS 32SMX(ALP) (Low Profile 0.35mm High)		No. <b>SX-6469A</b>	