

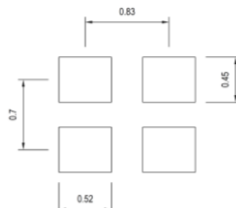
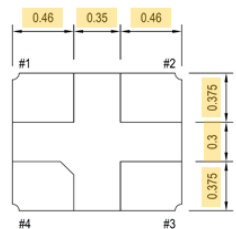
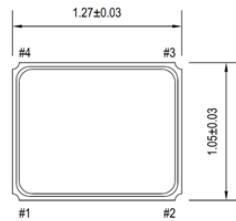
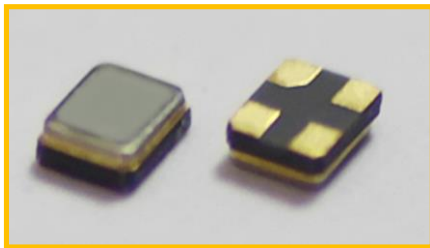
TITLE

# CRYSTAL SPECIFICATIONS

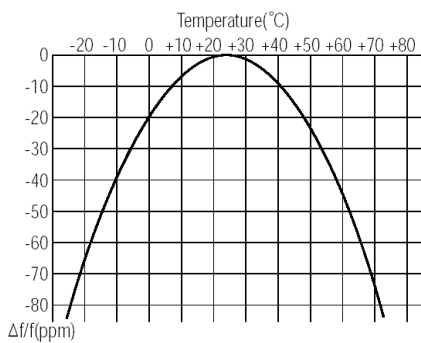
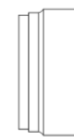
DATE

July 3, 2019

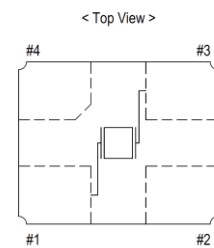
- |  |   |
|--|---|
| 1. Part No. :                          | 121M327B(4P), 121M327-6B(4P), 121M327-7B(4P), 121M327-9B(4P)  |
| 2. Nominal frequency (F) :             | 32.768 kHz  |
| 3. Package type :                      | <b>121SMX(4P)</b>   |
| 4. Frequency tolerance (df/F) :        | ±20 ppm (±0.002%) at +25°C ±3°C   |
| 5. Load capacitance (CL) :             | 12.5pF ±0.5pF ... 121M327B(4P)<br>6.0 pF ±0.5 pF ... 121M327-6B(4P)<br>7.0 pF ±0.5 pF ... 121M327-7B(4P)<br>9.0 pF ±0.5 pF ... 121M327-9B(4P) |
| 6. Series resistance (Rs) :            | 90 k ohms max.  |
| 7. Drive level (P) :                   | 0.1μW, Typical (0.3 μW max.)  |
| 8. Quality factor (Q) :                | 10000, Typical  |
| 9. Turnover temperature (TT) :         | +25°C ±5°C  |
| 10. Parabolic curvature constant (K) : | -0.036 ppm/°C <sup>2</sup> (±10%)   |
| 11. Shunt capacitance (C0) :           | 1.4 pF, Typical   |
| 12. Aging (df/F) :                     | First year : ±5ppm max. at 25°C ±3°C  |
| 13. Operating temperature range (TO) : | -40°C to +85°C  |
| 14. Storage temperature range (TS) :   | -55°C to +125°C   |
| 15. Insulation resistance:             | 500M ohms at 100V DC  |
| 16. Reflow soldering condition :       | 10 seconds at +260°C ±10°C (2 times max)  |
| 17. Shock (df/F) :                     | ±5 ppm max.   |
| 18. Vibration (df/F) :                 | ±5 ppm max.   |
| 19. Crystal test equipment :           | 140B (Saunders, U. S. A)  |
| 20. Outline dimentions :               | See below   |



**121SMX(4P)**  
Directive 2002/95/EC  
Pb-free



TYPICAL TEMPERATURE CHARACTERISTICS



< #2 & #4 Grounded to metal lid >

mm



ITEM.

QUARTZ CRYSTAL UNITS

No.

SX-6474A