



MHz RANGE CRYSTAL UNIT

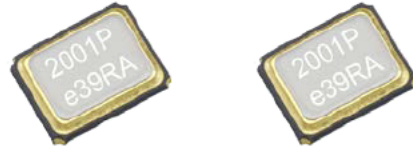
For Automotive



Product Number
X1E000341xxxx00

FA-238A

- Nominal frequency range : 12 MHz to 62.4 MHz
- External dimensions : 3.2× 2.5×0.7 mm
- Overtone order : Fundamental
- Applications : Car audio, ECU clock, Clock,
Car navigation system,
Meter, Remote keyless entry
- Conforms to AEC-Q200



Specifications (characteristics)

| Item | Symbol | Specifications | Conditions / Remarks |
|--|--------|---|---|
| | | For Automotive | |
| Nominal frequency range | f_nom | 12.000 MHz to 62.400 MHz | Fundamental Please contact us about available frequencies. |
| Storage temperature range | T_stg | -40 °C to +125 °C | Storage as single product. |
| Operating temperature range | T_use | -40 °C to +125 °C | |
| Level of drive | DL | 200 μW Max. | Recommended: 1 μW to 100 μW +25 °C |
| Frequency tolerance | f_tol | $\pm 15 \times 10^{-6}$ to $\pm 50 \times 10^{-6}$ | Please contact us for requirements not listed in this specifications. |
| Frequency versus temperature characteristics | f_tem | $\pm 30 \times 10^{-6}$ / -40 °C to +85 °C $\pm 50 \times 10^{-6}$ / -40 °C to +125 °C | Please contact us for requirements not listed in this specifications. |
| Load capacitance | CL | 7 pF to ∞ | Please specify. |
| Motional resistance (ESR) | R1 | As per table below | -40 °C to +125 °C, DL=100 μW |
| Frequency aging | f_age | $\pm 5 \times 10^{-6}$ / year Max. | +25 °C, First year |

Motional resistance (ESR)

| Frequency | Motional resistance |
|-----------------------------|---------------------|
| 12.0 MHz ≤ f_nom ≤ 13.0 MHz | 120 Ω Max. |
| 13.0 MHz < f_nom < 20.0 MHz | 80 Ω Max. |
| 20.0 MHz ≤ f_nom < 25.0 MHz | 60 Ω Max. |
| 25.0 MHz ≤ f_nom ≤ 62.4 MHz | 50 Ω Max. |

Product name FA-238A 28.636360MHz 18.0 +15.0-15.0

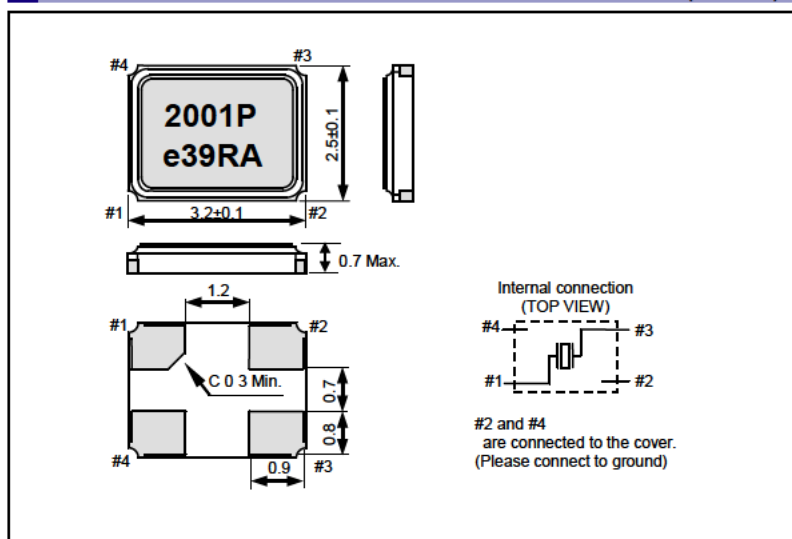
(Standard form)

① Model ② Frequency ③ Load capacitance(pF) ④ Frequency tolerance($\times 10^{-6}$, +25 °C)

In addition to the above mentioned specification item, please specify frequency temperature characteristics and operating temperature range in case of inquiry.

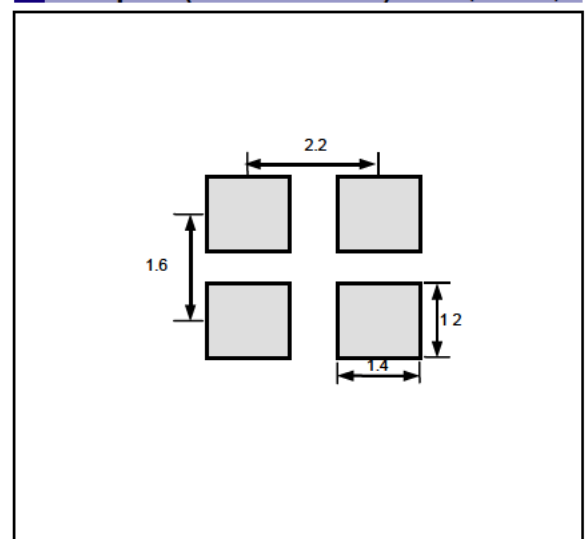
External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Crystals](#) category:

Click to view products by [Epson](#) manufacturer:

Other Similar products are found below :

[CS325S24000000ABJT](#) [718-13.2-1](#) [MC405 32.0000K-R3:PURE SN](#) [FC-135R 32.7680KF-A3](#) [7A-40.000MAAE-T](#) [7B-27.000MBBK-T](#)
[FL2000085](#) [9B-15.360MBBK-B](#) [9C-7.680MBBK-T](#) [ASH7K-32.768KHZ](#) [AT-41.600MAGQ-T](#) [BTD1062E05A-513](#) [LFX TAL066198Cutt](#)
[9C-14.31818MBBK-T](#) [FA-238 50.0000MB30X-K3](#) [FC-12M 32.7680KA-AC3](#) [SSPT7F-9PF20-R](#) [FX325BS-38.88EEM1201](#)
[LFX TAL065253Cutt](#) [LFX TAL066431Cutt](#) [XT9S20ANA14M7456](#) [XT9SNLANA16M](#) [646G-24-2](#) [7A-24.576MBBK-T](#) [7B-30.000MBBK-T](#)
[WX26-32.768K-6PF](#) [9B-14.31818MBBK-B](#) [CD1AM](#) [7B-25.000MAAE-T](#) [7A-14.31818MBBK-T](#) [6504-202-1501](#) [6526-202-1501](#) [FA-118T](#)
[27.1200MB50P-K0](#) [FC-135R 32.7680KA-A3](#) [ABM12-104-37.400MHZT](#) [ABLS-10.000MHZ-D3W-T](#) [BTJ112E01E-513](#) [BTJ722K01C-7067](#)
[BTL-20-513](#) [TSX-3225 24.0000MF15X-AC](#) [TSX-3225 16.0000MF18X-AC](#) [BTJ120E02C](#) [BTL-12-513](#) [7A-10.000MBBK-T](#) [7A-](#)
[11.0592MBBK-T](#) [ABM12-103-24.000MHZT](#) [CS325S25000000ABJT](#) [ABM3B-25.000MHZ-B2-X-T](#) [FC-135 32.7680KA-A5](#) [FX0800015](#)