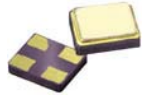


1016 SMX-4 Series

1.6 x 1.2mm Crystal unit



RoHS & REACH compliant
Smallest crystal



| Parameters | Specification | Remarks |
|--|---|----------------------------|
| Frequency range | F_nom 24.0MHz ~ 54.0MHz | |
| Frequency tolerance | F_tol ±10.0ppm ~ ±50.0ppm | |
| Frequency stability over operating temperature range | F_stb ±10.0ppm ~ ±50.0ppm | Table 2 |
| Operating temperature range | T_use -20°C ~ +70°C, -30°C ~ +85°C, -40°C ~ +85°C | Table 2 |
| Storage temperature | T_stg -45°C ~ +85°C | |
| Load capacitance | CL 7.0pF ~ 12.0pF | |
| Equivalent series resistance | ESR Table 1 | |
| Shunt capacitance | CO 3.0pF max | |
| Drive level | DL 100µW max | 50µW typical |
| Frequency aging | F_age ±2.0ppm at 25°C, 1 st Year | For ±1.0ppm please enquire |
| Moisture sensitivity level | MSL 1 (unlimited) | |
| Electrostatic discharge | ESD Not applicable | |
| Insulation resistance | IR 500MΩ min | At 100V DC |

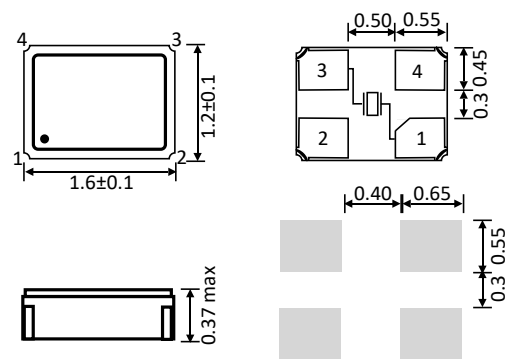
Table 1. Frequency range (MHz) vs ESR

| | |
|---------------------|------|
| 24.0MHz ~ 29.999MHz | 100Ω |
| 30.0MHz ~ 39.999MHz | 80Ω |
| 40.0MHz ~ 54.000MHz | 60Ω |

Table 2 Frequency Stability vs Temperature

| Temp. (°C) | Stability in ppm | | | | |
|--------------|------------------|---------|-----|-----|-----|
| | ±10 | ±15 | ±20 | ±30 | ±50 |
| -20°C ~ 70°C | ✓ | ✓ | ✓ | ✓ | ✓ |
| -30°C ~ 85°C | ✓ | ✓ | ✓ | ✓ | ✓ |
| -40°C ~ 85°C | Enquire | Enquire | ✓ | ✓ | ✓ |

Dimensions (mm)



Part number generation

| CAZ | 2700 | G | K | L | GO | F | L | | -PF |
|-----------------|---|---|---|---|---|-----------------------|--------------------------|--|------------------|
| ACT Series Code | Frequency (MHz) | Frequency Tolerance (±ppm) | Frequency stability over temperature range (±ppm) | Operating Temperature Range (°C) | Load capacitance (CL -pF) | Frequency mode | Packaging (Tape & Reel) | Frequency aging | RoHS |
| CAZ | 8MHz = 0800 27MHz = 2700 24.576MHz =2457 Note: Use the first 4 characters of the frequency in Hz i.e. 27MHz =27000000Hz part code =2700 If the frequency is 100MHz or higher than the first 5 characters are used | ±10 = E ±15 = F ±20 = G ±30 = I ±50 = L | ±10 = F ±15 = G ±20 = I ±30 = K ±50 = O | -20 ~ +70 = G -30 ~ +85 = L -40 ~ +85 = M | 7 = DO 8 = GO 9 = JO 10 = KO 11 = MO 12 = OO | Fundamental = F | Loose = L 3000pcs = D | <u>Standard</u> ±2ppm=leave blank <u>Non standard</u> ±1ppm=1 | RoHS = -PF |

Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below.
Full Example Part Number : CAZ0800GKLGOL-PF [8.000MHz] , CAZ2700GKLGOL-PF [27.000MHz] , CAZ2457GKLGOL-PF [24.576MHz]

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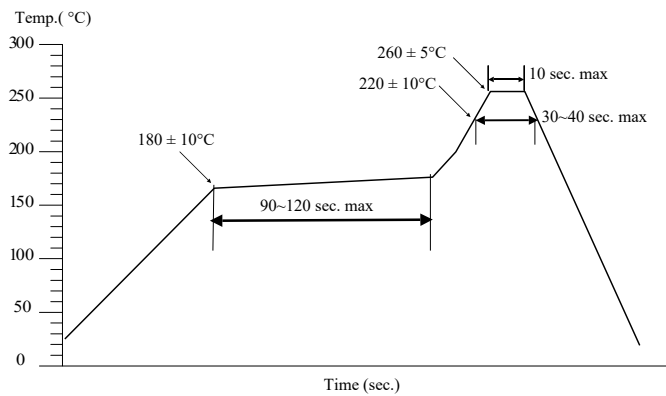
Specifications subject to change without notification

1016 SMX-4 Series

1.6 x 1.2mm Crystal unit



Solder Reflow Profile



Additional information

Drawing control: (Internal use only)
Commodity code: 854160 00 00
Issue number: N1
Date: 01/2/2017
Internal reference: H2

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