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ON SHINE ENTERPRISE CO., LTD.

11F.NO 722-6. JING PING ROAD

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SMD Crystal Resonator

MODEL NO.: [3.2x2.5 / 4x2.5 / 5x3.2 / 6x3.5 / mm](#)

REV NO.:1

Features:

- Surface Mount Seam Weld Package
- Excellent Aging
- Good Frequency Perturbation and Stability over temperature
- Ultra Miniature Package

Description and Applications:

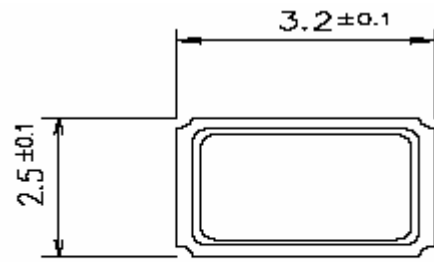
Surface mount 4.0mmx2.5mm crystal resonator for use in wireless communication devices, especially for a need of ultra miniature package for mobility such as bluetooth

Electrical Specifications:

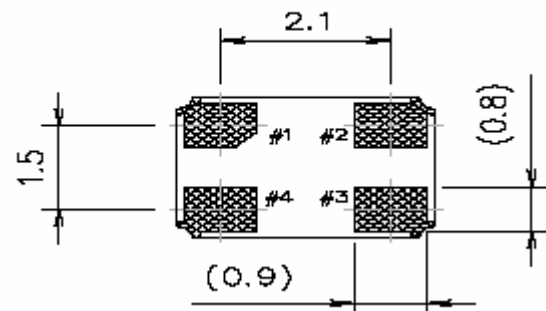
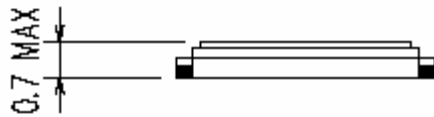
| | Specification |
|--|-----------------------------------|
| Nominal Frequency | 13 ~44 MHz |
| Mode of Vibration | Fundamental |
| Storage Temperature Range | -40°C to +85°C |
| Operating Temperature Range | -30°C to +85°C |
| Frequency Stability over Operating Temperature | +/-10 ppm, +/-15.0 ppm, +/-20 ppm |
| Frequency Perturbation | +/-1.0ppm |
| Frequency Make Tolerance | ±10 ppm @ 25°C +/- 3°C |
| Resonance Resistance(R) | 60 Ω max. |
| Drive Level | 10 uW nominal |
| Load Capacitance-CL | 8~40.0 pF |
| Insulation Resistance | 500 MΩ min./DC 100V |
| Aging | ±1.0 ppm/year @25°C |
| Marking | Laser marking |

Mechanical Dimensions (mm):

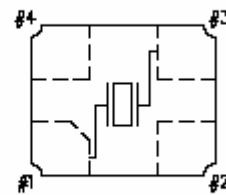
A. 3.2x2.5



| | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT |
| #2 pin | GND |
| #3 pin | IN/OUT |
| #4 pin | GND |

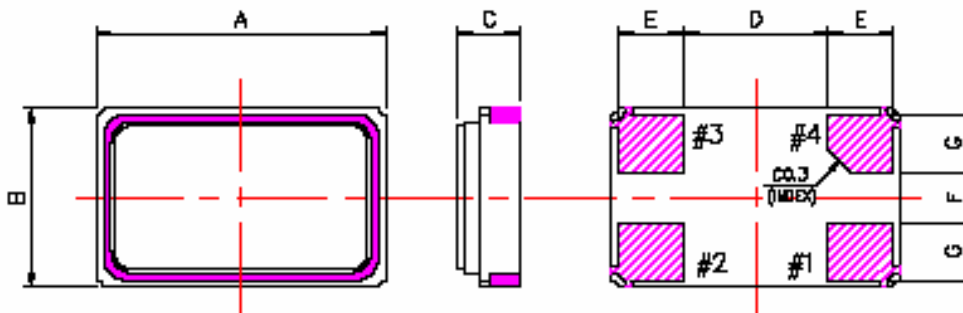


Internal Connections
(Top View)



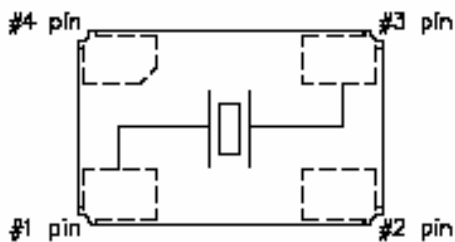
#2, #4 is connected with a cover

B. 4x2.5



| UNIT \ ITEM | A | B | C | D | E | F | G |
|-------------|--------------|--------------|-------------|-------------|--------------|-------------|--------------|
| mm | 4.0 ±0.10 | 2.5 ±0.10 | 0.80 MAX | 2.0 REF. | 0.8 ±0.10 | 0.7 REF. | 0.8 ±0.10 |

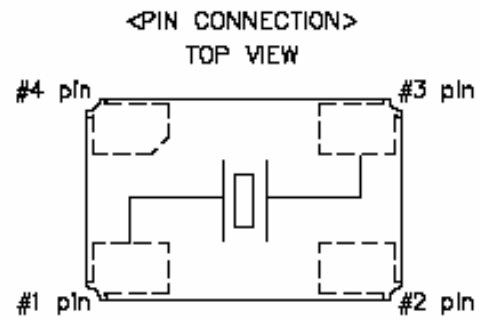
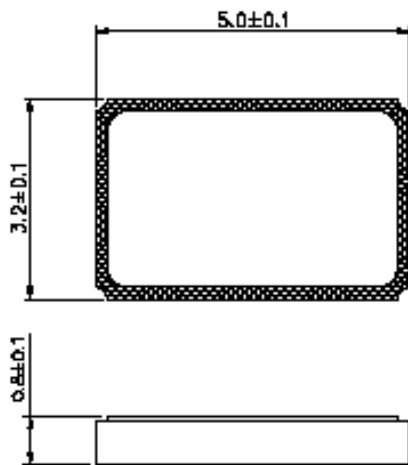
<PIN CONNECTION>
TOP VIEW



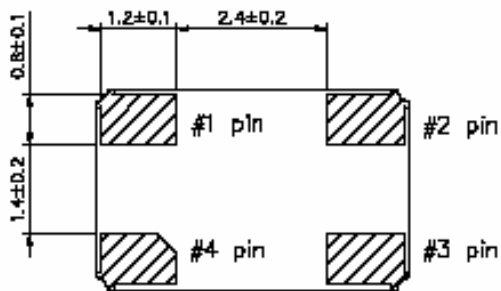
| | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT |
| #2 pin | GND |
| #3 pin | IN/OUT |
| #4 pin | GND |

Marking #2, #4 is connected with metal cap of top.

C. 5x3.2

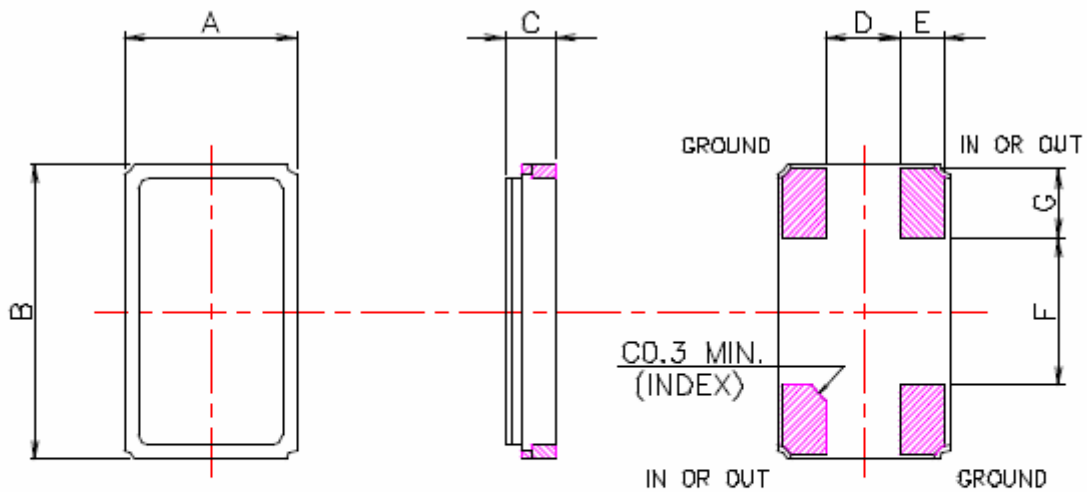


Marking #2, #4 is connected with metal cap of top.



| | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT |
| #2 pin | GND |
| #3 pin | IN/OUT |
| #4 pin | GND |

D. 6x3.5



| ITEM UNIT | A | B | C | D | E | F | G |
|--------------|---------------|---------------|---------------|---------------|----------|---------------|----------|
| M/M | 3.50 ±0.13 | 6.00 ±0.13 | 1.00 ±0.16 | 1.50 ±0.13 | 0.9 REF. | 3.00 ±0.13 | 1.4 REF. |