

The ECS-327MVATX is a miniature SMD 32.768 kHz Oscillator with MultiVolt™ capability of 1.6 ~ 3.6 V. Available in 5 industry standard Packages the ECS-327MVATX is ideal for RTC, Low Power/Portable, Industrial, and IoT applications.

[Request a Sample](#)

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Current
- Extended Temp Range
- RoHS Compliant
- MultiVolt™ 1.6 ~ 3.6V Supply Voltage
- Tight Stability
- Compatible with 1.8V, 2.5V or 3.3V Power Supply

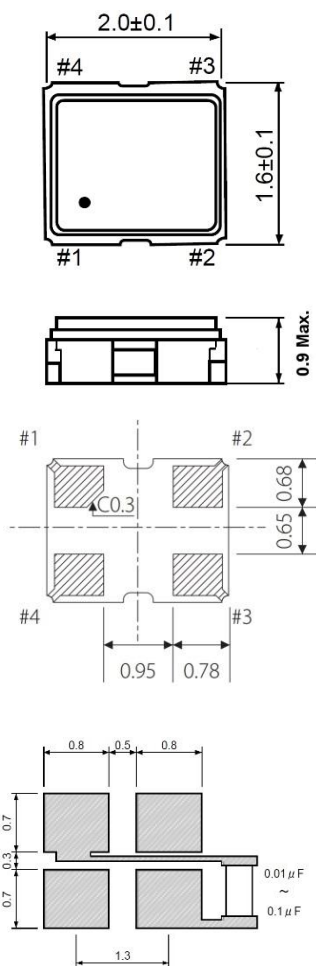
| PARAMETERS | CONDITIONS | ECS-327MVATX | | | UNITS |
|-----------------------|-------------------------------------|--------------|--------|---------|-------|
| | | MIN | TYP | MAX | |
| Frequency Range | | | 32.768 | | kHz |
| * Frequency Stability | -40 ~ +85°C (CN Opt) | | | ±25 | ppm |
| Supply Voltage | | 1.6 | | 3.6 | V |
| Supply Current | | | | 200 | µA |
| Output Load | CMOS | | | 15 | pF |
| Output Voltage | VOH | 0.9 Vdd | | | V |
| | VOL | | | 0.1 Vdd | V |
| Tri-State Function | "1" VIH ≥ 0.7* Vdd = Oscillation | | | | |
| | "0" VIL ≤ 0.3* Vdd = High Impedance | | | | |
| Rise & Fall time | 10% Vdd – 90% Vdd | | | 30 | ns |
| Start Up Time | | | | 5 | mS |
| Phase Jitter (RMS) | | | | 1 | pS |
| Duty Cycle | @ ½ Vdd | | | 45/55 | % |
| Standby Current | | | | 10 | µA |
| Aging | @ +25°C | | | ±3 | ppm |
| Operating Temp* | (N Opt) | -40 | | +85 | °C |
| Storage Temp | | -55 | | +125 | °C |

PART NUMBERING GUIDE: Example ECS-327MVATX-2-CN-TR

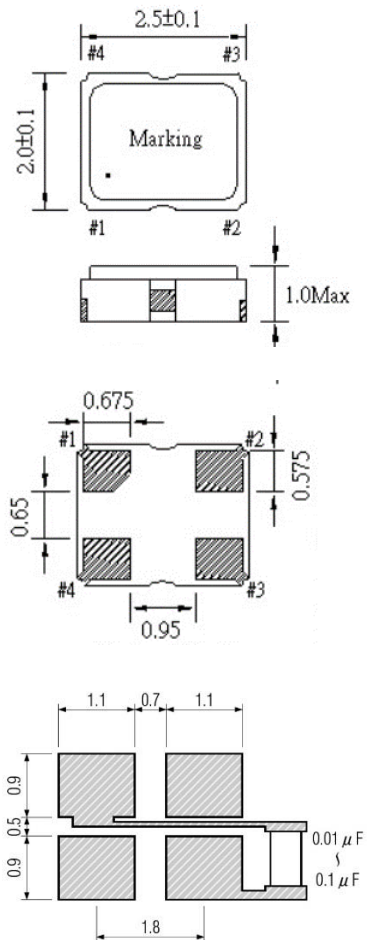
| ECS | - | SERIES | PACKAGE SIZE | - | * STABILITY | TEMP RANGE - | PACKAGING |
|-----|---|---|--|---|---|---|------------------------------|
| ECS | - | 327MVATX 32.768 kHz MultiVolt™ Oscillator | 1 = 2.0 x 1.6 mm 2 = 2.5 x 2.0 mm 3 = 3.2 x 2.5 mm 5 = 5.0 x 3.2 mm 7 = 7.0 x 5.0 mm | - | A = ±100 ppm B = ±50 ppm C = ±25 ppm D = ±20 ppm | L = -10 ~ +70°C M = -20 ~ +70°C N = -40 ~ +85°C | -TR = Tape & Reel 1K/Reel |

* Frequency Stability includes initial tolerance, temperature, supply voltage and load change reflow frequency shift.

1 = 2.0 x 1.6 Package



2 = 2.5 x 2.0 Package



3 = 3.2 x 2.5 Package

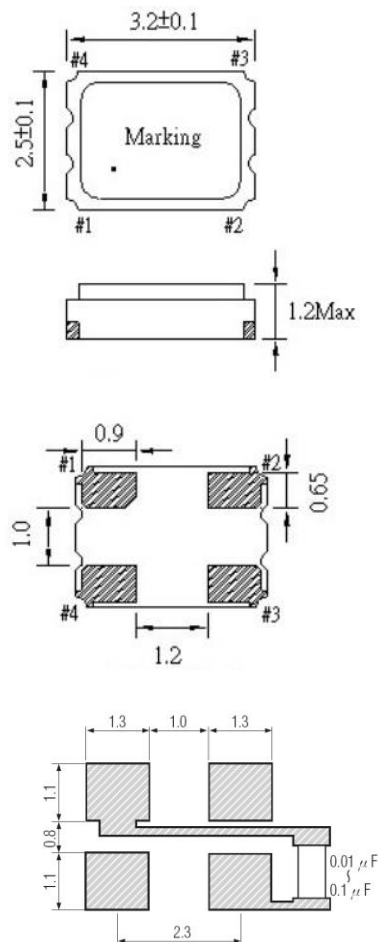


Figure 1) Top, Side, Bottom views and Suggested Land

Figure 2) Top, Side, Bottom views and Suggested Land

Figure 3) Top, Side, Bottom views and Suggested Land

PAD CONNECTIONS

| | |
|---|-----------|
| 1 | Tri-state |
| 2 | Gnd |
| 3 | Output |
| 4 | Vdd |

5 = 5 x 3.2 Package

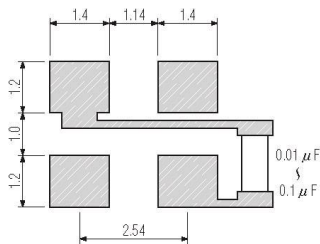
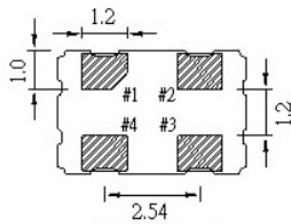
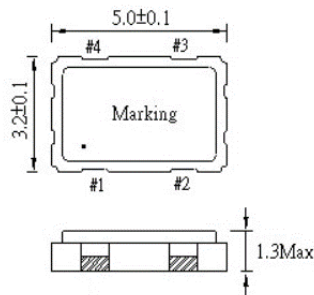


Figure 4) Top, Side, Bottom views and Suggested Land

7 = 7 x 5 Package

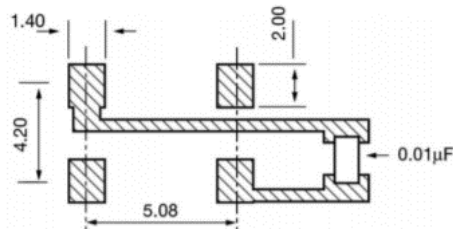
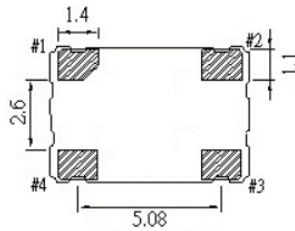
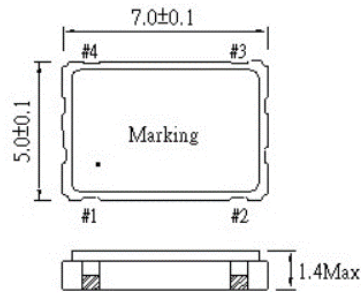


Figure 5) Top, Side, Bottom views and Suggested Land

PAD CONNECTIONS

| | |
|---|-----------|
| 1 | Tri-state |
| 2 | Gnd |
| 3 | Output |
| 4 | Vdd |

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