

## ECS-327MVATX 32.768 kHz

SMD MultiVolt™ Crystal Oscillator



Request a Sample

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

#### **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	NDITIONS 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	μΑ
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*				
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	μΑ
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 = 1K -TR3 = 3K Qty/Reel

<sup>\*</sup> Frequency Stability includes initial tolerance, temperature, supply voltage and load change reflow frequency shift.

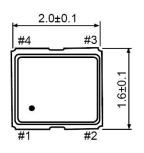


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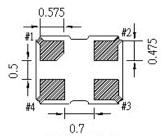
SMD MultiVolt™ Crystal Oscillator

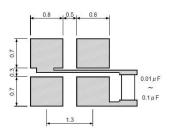


 $1 = 2.0 \times 1.6$  Package



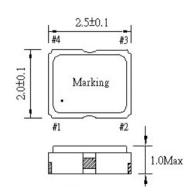


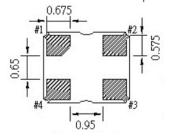




**Figure 1)** Top, Side, Bottom views and Suggested Land

2= 2.5 x 2.0 Package





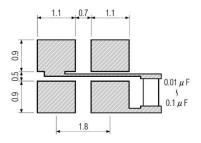
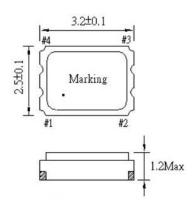
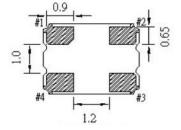
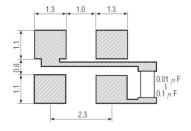


Figure 2) Top, Side, Bottom views and Suggested Land

 $3 = 3.2 \times 2.5$  Package







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

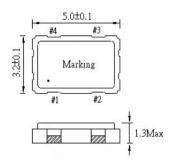
PAD CONNECTIONS		
1	Tri-state	
2	Gnd	
3	Output	
4	Vdd	



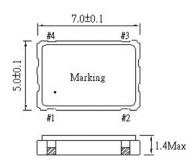
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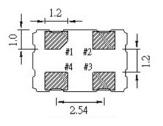


### $5 = 5 \times 3.2 \text{ Package}$



### $7 = 7 \times 5$ Package





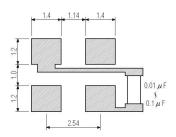
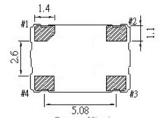


Figure 4) Top, Side, Bottom views and Suggested Land



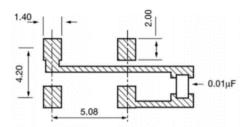


Figure 5) Top, Side, Bottom views and Suggested Land

PAD CONNECTIONS		
1	Tri-state	
2	Gnd	
3	Output	
4	Vdd	

### **Mouser Electronics**

**Authorized Distributor** 

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### ECS:

ECS-327MVATX-7-CN-TR ECS-327MVATX-2-CN-TR ECS-327MVATX-3-CN-TR ECS-327MVATX-1-CN-TR ECS-327MVATX-5-CN-TR