

The ECS-327TXO-2012 is a low power CMOS SMD TCXO. The 2.0 x 1.2 x 1.1 mm ceramic package is ideal for IOT and accurate RTC applicaitons.

ECS-327TXO-2012

32.768 KHz

SMD TCXO

ECS-327TXO SMD CMOS TCXO



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- Low Profile
- 2.0 x 1.2 mm Footprint
- Extended Temp Range
- RoHS Compliant

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-327TXO-2012			UNITS
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance	@25°C ±3°C			±2.5	ppm
Frequency Stability over Temp	-40 ~ +85°C			±5	ppm
Stability vs. Aging	First Year at +25°C			±3	ppm
Stability vs. VDD Change				±1	ppm/V
Stability vs. Reflow	After 24 Hours			±1	ppm
Supply Voltage (Vdd)	33 Option	3.135	3.3	3.465	V
Supply Current (without load)	33 Option		1	2	µA
Output	CMOS			15	pF
Start-Up time	@+25°C			0.5	sec
Rise & Fall time	20% - 80%			100	ns
Duty Cycle	@ ½ V _{dd}			40/60	%
Operating Temp		-40		+85	°C
Storage Temp		-55		+85	°C

DIMENSIONS (mm)

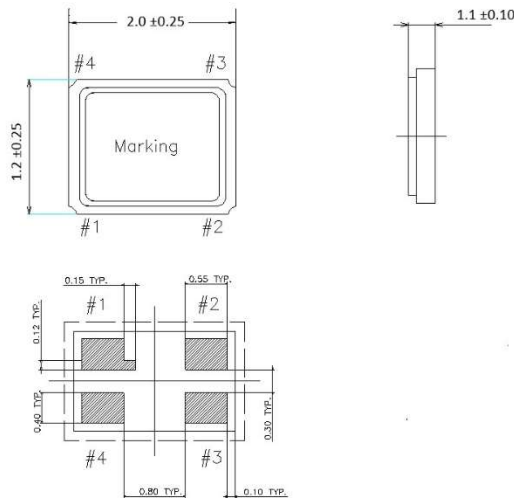


Figure 1) Top, Side, and Bottom views

Enable Function	
Pin 1	Output
Open	Enabled
V _{ih} =0.8* VDD	Enabled
V _{il} =0.2*Low	Disabled

PAD CONNECTIONS	
1	Output Enable
2	Gnd
3	Output
4	Supply Voltage

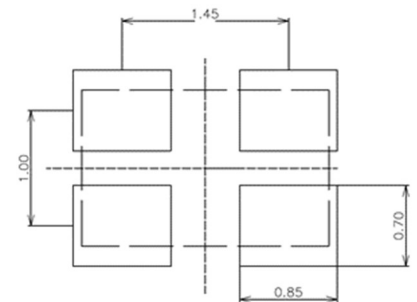


Figure 2) Suggested Land

PART NUMBERING GUIDE: Example ECS-327TXO-2012-33-TR

ECS	SERIES	Voltage	PACKAGING
ECS	327TXO-2012 32.768 KHz TCXO	25 = +2.5V 30 = +3.0V 33 = +3.3V	TR = Tape & Reel 3K/Reel

Timing Error over time (±5 ppm over -40 ~ +85°C)
±0.432 sec/day
±12.960 sec/month
±2.628 min/year

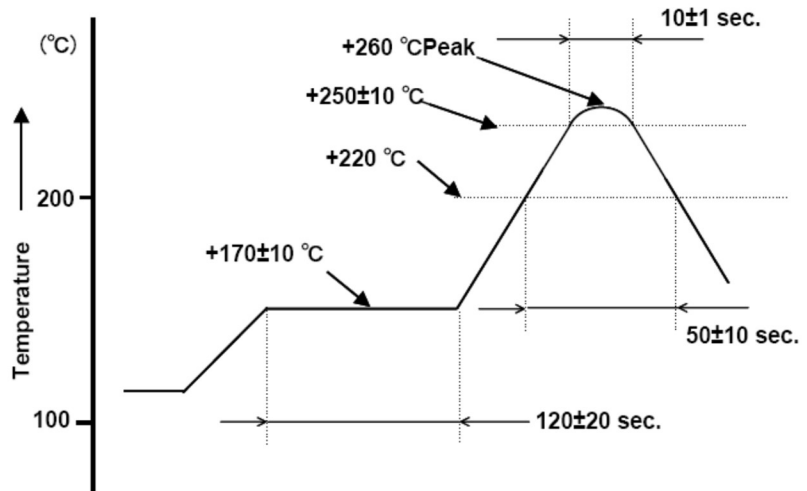
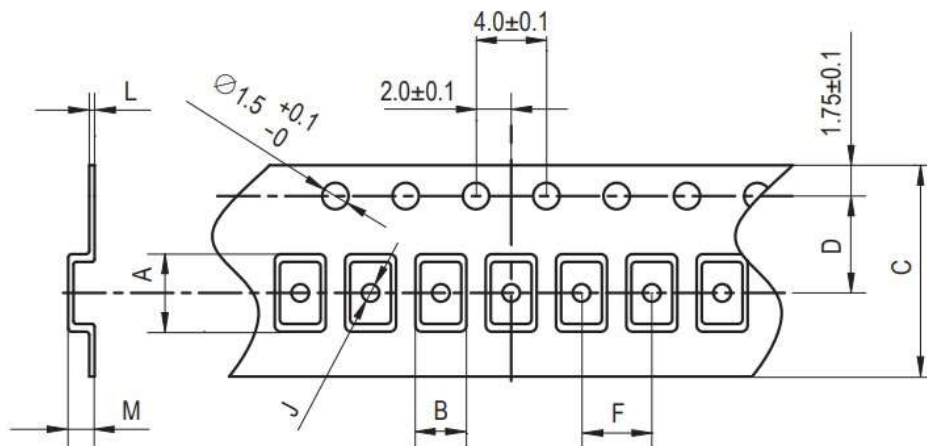


Figure 1) Suggested Reflow Profile

SOLDER PROFILE
Peak solder Temp +260°C Max 10 sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
2.3	1.5	8.0	3.5	4.0	1.0	0.25	1.35	180	3000pcs