



**THE DATASHEET OF
ECS-.327-12.5-39-TR**



The miniature ECX-39 is a very compact SMD Tuning Fork Crystal. The 4.9 x 1.8 x 1.0 mm ceramic package is ideal for wide range in communication and measuring equipment.

ECX-39 SMD CRYSTAL



- Low Profile
- 4.9 x 1.8 mm Footprint
- Extended Temp. Range
- RoHS Compliant
- Low Power RTC Applications such as STM32 [AN2867](#)

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-39			UNITS
		MIN	TYP	MAX	
Frequency	Fo		32.768		KHz
Frequency Tolerance	@ +25°C			± 20 *	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL		0.1	1.0	μW
Equivalent Series Resistance	R1			70K	Ω
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.028	-0.034	-0.040	ppm/°C ²
Shunt Capacitance	Co		1.33		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-55		+125	°C
Insulation Resistance	@ 100V DC	500M			Ω

DIMENSIONS (mm)

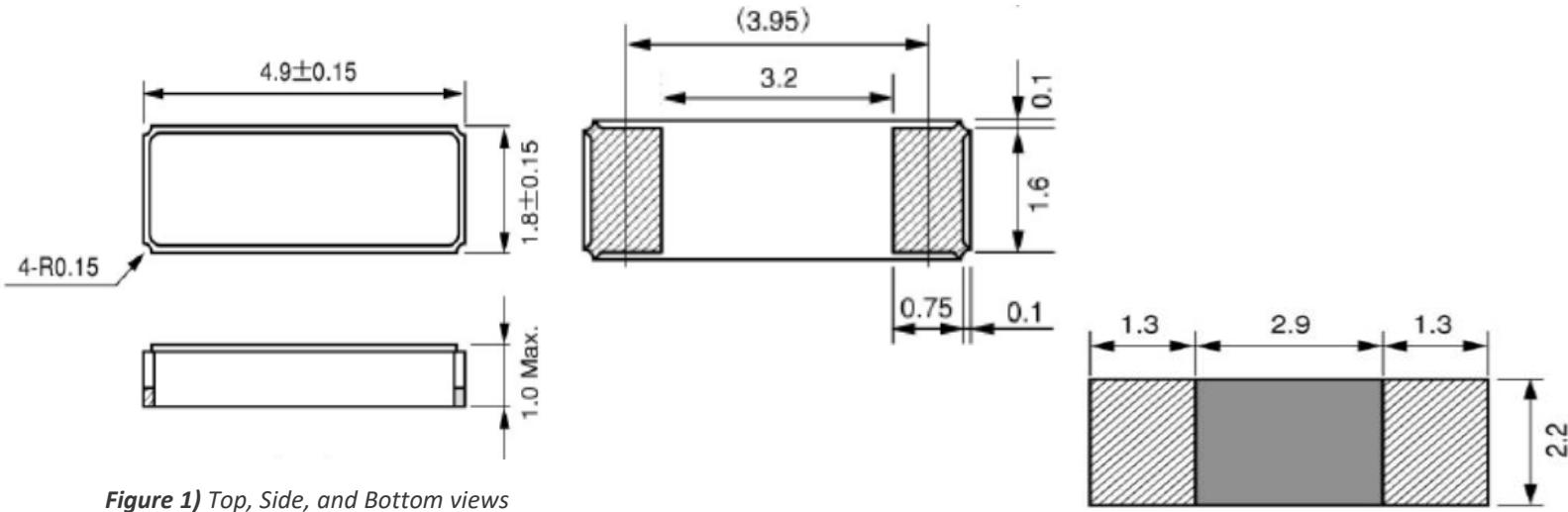


Figure 1) Top, Side, and Bottom views

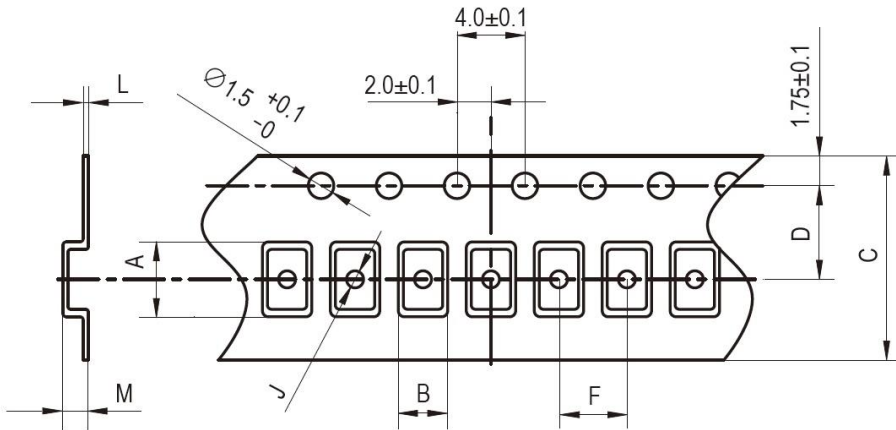
Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-.327-12.5-39-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIONS Tolerance	PACKAGING
ECS	.327 = 32.768 KHz 9 = 9 pF 7 = 7 pF 6 = 6 pF	39 = ECX-39	Blank = ±20 ppm * C = ± 10 ppm	TR = Tape & Reel 3K/Reel

*Contact ECS for availability

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
5.3	2.1	12.0	5.5	4.0	1.0	0.3	1.1	180	3000pcs

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

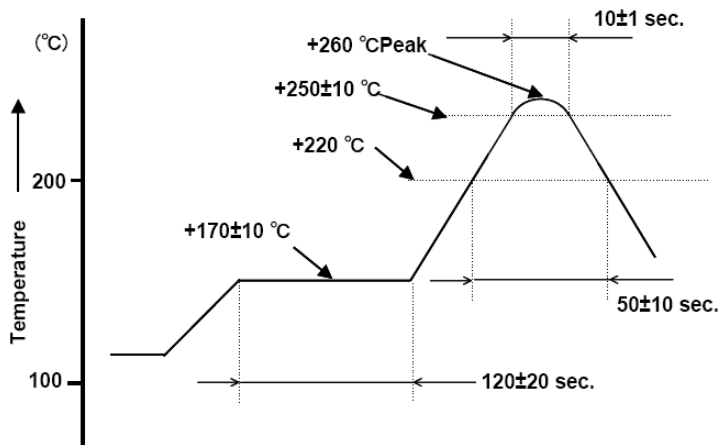


Figure 1) Suggested Reflow Profile

Looking for pricing, stock, or lifecycle information?

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 [ECS Inc. Information](#)

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