

The ultra-miniature ECX-34RR is a very compact SMD Tuning Fork Crystal with a Typical ESR of 20K Ω . Low ESR part recommended by STMicroelectronics for the STM32 Microcontrollers.

ECX-34RR SMD CRYSTAL

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Power RTC Applications such as STM32 [AN2867](#)
- 20K Typ ESR
- 3.2 x 1.5 mm Footprint
- Extended Temp. Range
- RoHS Compliant

DIMENSIONS (mm)

PARAMETERS	CONDITIONS	ECX-34RR			UNITS
		MIN	TYP	MAX	
Frequency	Fo		32.768		KHz
Frequency Tolerance	@ +25°C			± 20 *	ppm
Load Capacitance	Specify in P/N		12.5		pF
Equivalent Series Resistance	R1		20K	40K	Ω
Drive Level	DL		0.1	0.5	μ W
Quality Factor	Q	20K	30K		
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.028	-0.034	-0.040	ppm/°C ²
Shunt Capacitance	Co		1.3	1.6	pF
Motional Capacitance	C1		3.8		fF
Aging (First Year)	@ +25°C ± 3 °C			± 3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-40		+85	°C
Insulation Resistance	@ 100V DC	500M			Ω

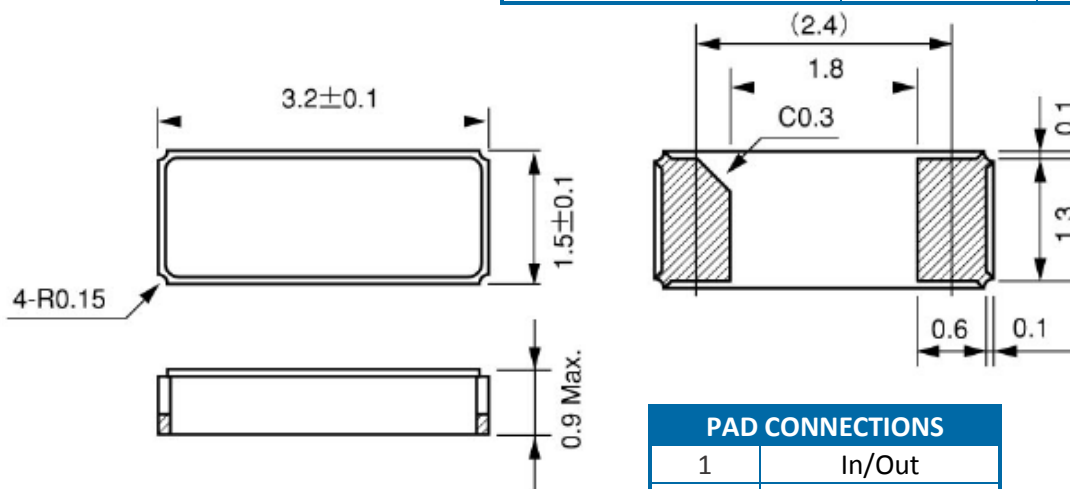


Figure 1) Top, Side, and Bottom views

PAD CONNECTIONS	
1	In/Out
2	Out/In

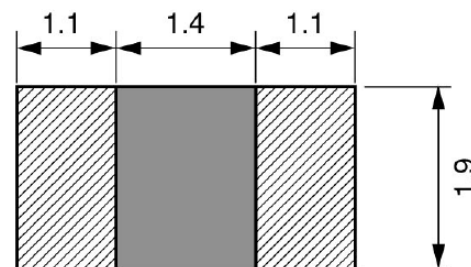


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-327-12.5-34RR-TR

ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIONS Tolerance	PACKAGING
ECS	.327 = 32.768 KHz	12.5 = 12.5 pF 9 = 9 pF 6 = 6 pF	-34RR = ECX-34RR	Blank = ±20 ppm * C = ± 10 ppm	TR = Tape & Reel 3K/Reel

*Contact ECS for availability

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