

The miniature ECX-71 is a very compact SMD Tuning Fork Crystal. The 7 x 1.5 x 1.4 mm plastic package is ideal for today's SMD manufacturing environment.

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Profile
- 7 x 1.5 mm Footprint
- Extended Temp. Range
- RoHS Compliant

PARAMETERS	CONDITIONS	ECX-71			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			65K	Ω
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.025	-0.035	-0.045	ppm/°C <sup>2</sup>
Shunt Capacitance	Co		0.8		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-55		+125	°C

### DIMENSIONS (mm)

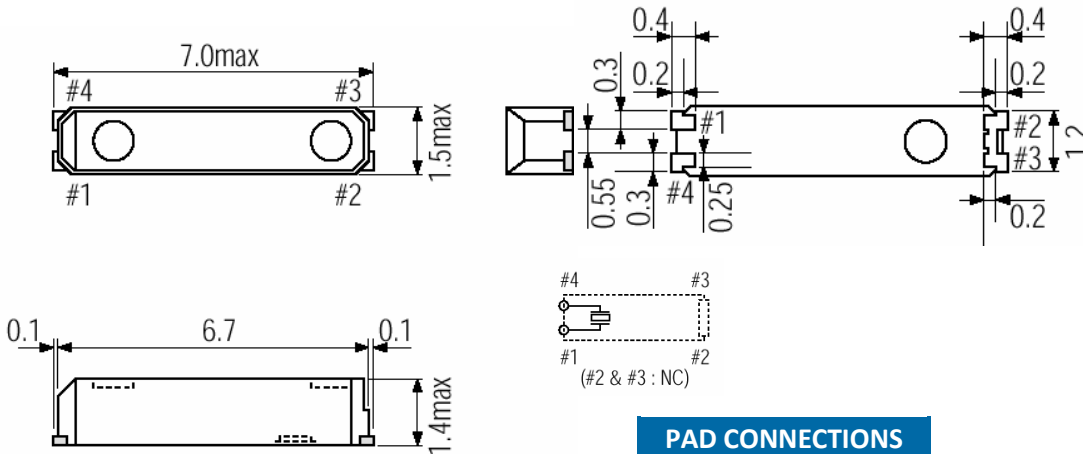


Figure 1) Top, Side, and Bottom views

PAD CONNECTIONS	
1	In/Out
4	Out/In

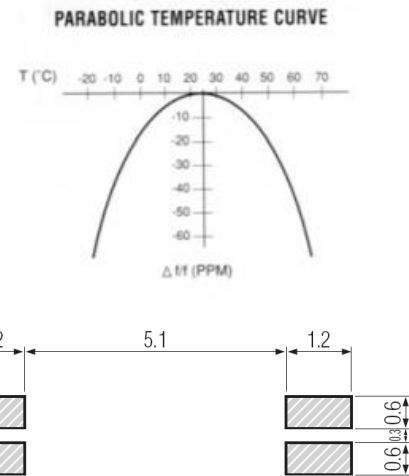
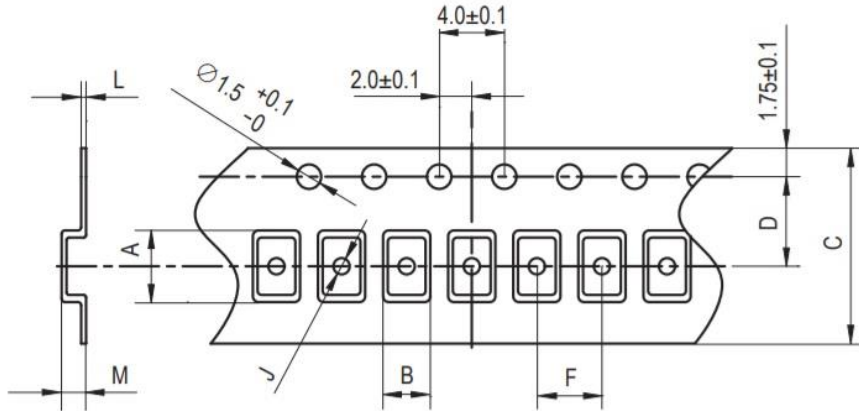


Figure 2) Suggested Land Pattern

### PART NUMBERING GUIDE: Example ECS-.327-12.5-38-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	PACKAGING
ECS	12.5 = 12.5 pF 9 = 9 pF 7 = 7 pF 6 = 6 pF	-38 = ECX-71	TR = Tape & Reel 3K/Reel
.327 = 32.768 KHz			

**POCKET TAPE DIMENSIONS (mm)**



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
7.2	1.55	16.0	7.5	4.0	1.0	0.3	1.5	180	3000pcs

**SOLDER PROFILE**

Peak solder Temp +260°C Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Sn

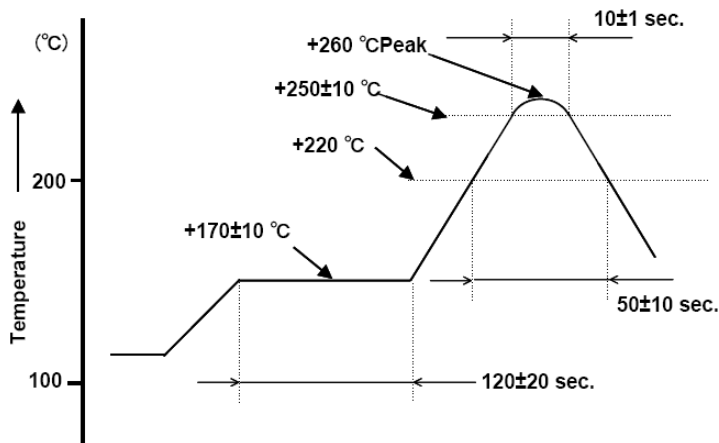


Figure 1) Suggested Reflow Profile