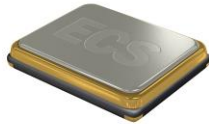


The ultra-miniature ECX-1048 is a our smallest compact Crystal. The 1.2 x 1.0 x 0.33 mm ceramic package is ideal for LoRa WAN, receivers, video, audio, and mobile applications.

ECX-1048 SMD CRYSTAL

[Request a Sample](#)

ECX-1048 SMD CRYSTAL

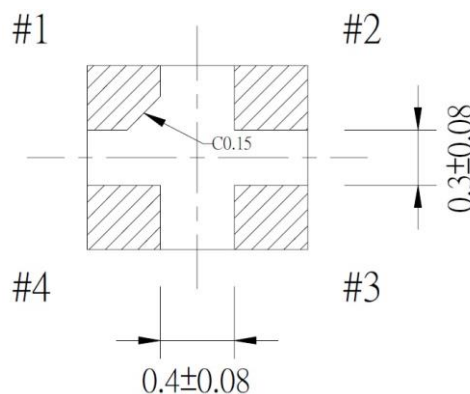
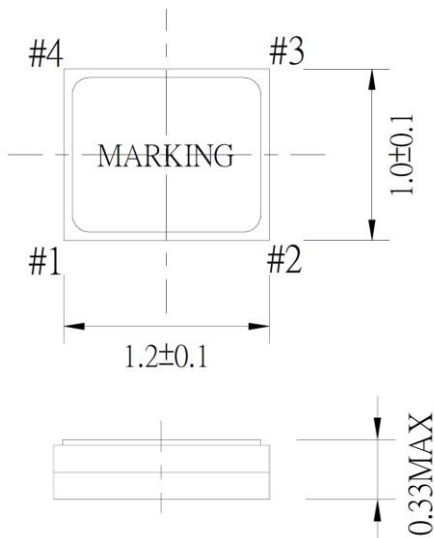


- Low Profile
- 1.2 x 1.0 mm Footprint
- Extended Temp. Range
- RoHS Compliant
- IOT/Wearable Applications

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1048			UNITS
		MIN	TYP	MAX	
Frequency		32.000		54.000	MHz
Frequency Tolerance	@ +25°C			± 10	ppm
Frequency Stability	-30 ~ +85°C (Y)			± 10	ppm
Resistance (ESR)	32 ~ 54.000 MHz			100	Ω
Shunt Capacitance	Co			2	pF
Load Capacitance	Specify in P/N		10		pF
Drive Level	DL		10	50	μW
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-40		+90	°C
Aging (First Year)	@ +25°C ±3°C			±2	ppm

DIMENSIONS (mm)



PAD CONNECTIONS	
1	In/Out
2	NC
3	Out/In
4	Gnd

Figure 1) Top, Side, and Bottom views

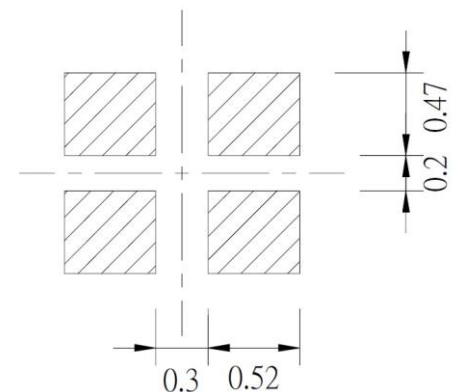


Figure 2) Suggested Land Pattern

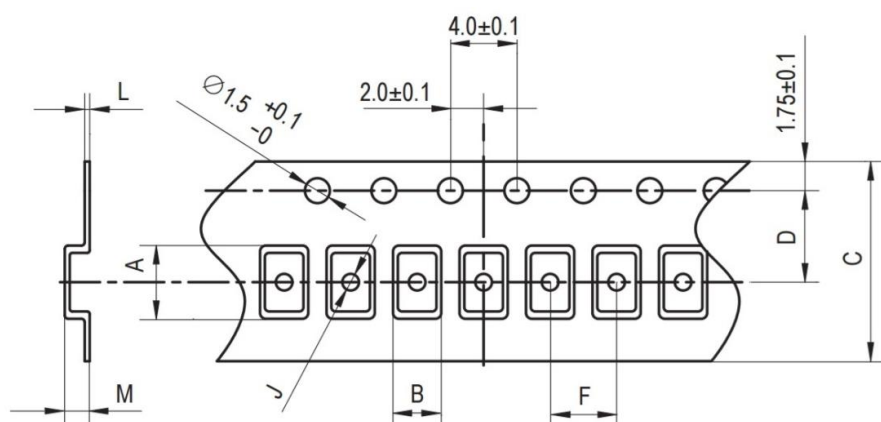
PART NUMBERING GUIDE: Example ECS-320-10-48-CKY-TR

ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIOND			PACKAGING
				Tolerance	Stability	Temp Range	
ECS	320 = 32.000 MHz See P/N Guide	8 = 8 pF 10 = 10 pF	-48 = ECX-1048	A = ± 25 ppm J = ± 20 ppm R = ± 15 ppm C = ± 10 ppm	E = ± 50 ppm G = ± 30 ppm H = ± 25 ppm T = ± 20 ppm W = ± 15 ppm K = ± 10 ppm	M = -20 ~ +70°C Y = -30 ~ +85°C N = -40 ~ +85°C	TR = Tape & Reel 3K/Reel

*Contact ECS for availability

Rev.2017

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
1.42	1.17	8.0	3.5	4.0	0.5	0.2	0.65	180	3K/Reel

SOLDER PROFILE

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

2 Cycles Max.

MSL 1, Lead Finish Au

STANDARD FREQUENCIES

Abbreviation	Frequency (MHZ)
320	32.000
374	37.400
384	38.400
480	48.000

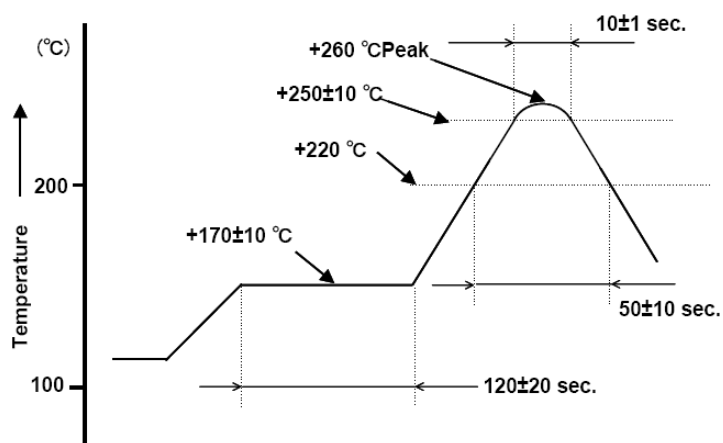


Figure 1) Suggested Reflow Profile

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ECS:

[ECS-520-8-48-RTN-TR](#) [ECS-240-8-48-RTN-TR](#) [ECS-480-8-48-CKY-TR](#) [ECS-374-8-48-CKY-TR](#) [ECS-240-8-48-CKY-TR](#) [ECS-400-8-48-RTN-TR](#) [ECS-374-8-48-RTN-TR](#) [ECS-260-8-48-RTN-TR](#) [ECS-520-8-48-CKY-TR](#) [ECS-480-8-48-RTN-TR](#) [ECS-384-8-48-RTN-TR](#) [ECS-260-8-48-CKY-TR](#) [ECS-384-8-48-CKY-TR](#) [ECS-400-8-48-CKY-TR](#) [ECS-480-10-48-CKY-TR](#) [ECS-320-8-48-CKY-TR](#) [ECS-320-10-48-CKY-TR](#)