

The miniature ECS-23G is a compact SMD Crystal. The industry standard 6 x 3.5 x 1.2 mm ceramic package is ideal for GPS, WiFi, Telecom, and wireless charging applications.

# ECS-23G SMD CRYSTAL

Request a Sample

## ECS-23G SMD CRYSTAL



- Low Profile
- 6.0 x 3.5 mm Footprint
- Extended Temp. Range
- RoHS Compliant

## DIMENSIONS (mm)

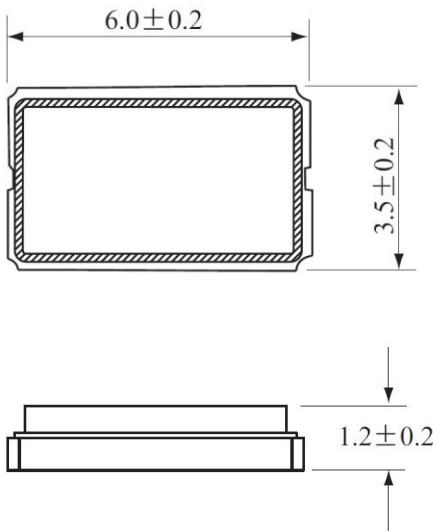


Figure 1) Top, Side, Bottom views

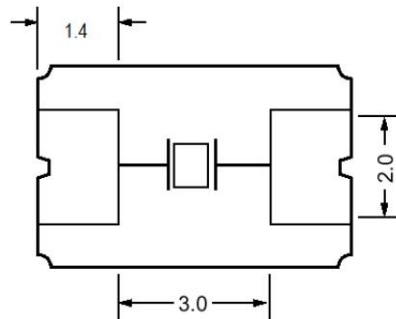
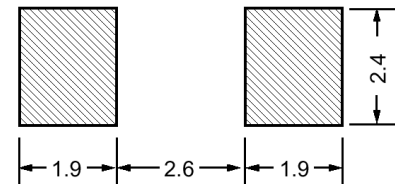


Figure 2) Suggested land pattern

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-23G			UNITS
		MIN	TYP	MAX	
Frequency		8.000		50.000	MHz
Mode of Oscillation	Fundamental				
Frequency Tolerance	@ +25°C (J)			± 20	ppm
Frequency Stability	-40 ~ +85°C (GN)			± 30	ppm
Shunt Capacitance	Co			7	pF
Load Capacitance	Specify in P/N		18		pF
Drive Level	DL		10	100	μW
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-40		+90	°C
Aging (First Year)	@ +25°C ±3°C			±5	ppm
Insulation Resistance	@100 Vdc	500			MΩ

Frequency (MHz)	ESR Ω Max.
8.000 ~ 9.999	100
10.000 ~ 11.999	80
12.000 ~ 15.999	60
16.000 ~ 50.000	50



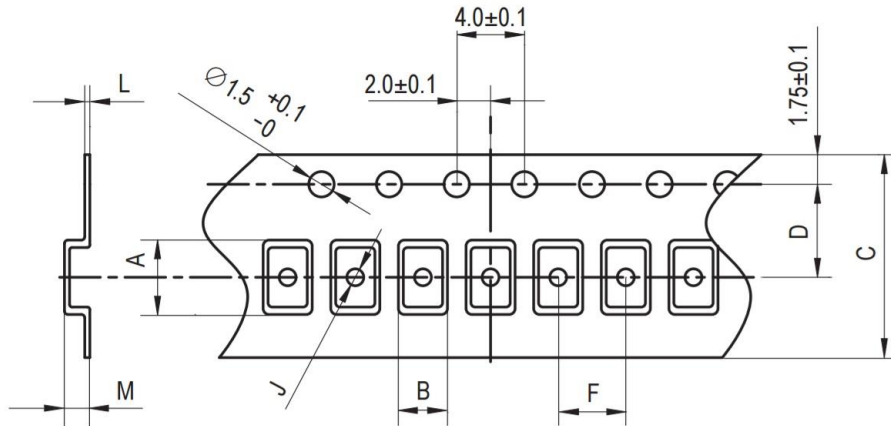
## PART NUMBERING GUIDE: Example ECS-240-18-23G-JGN-TR

ECS - FREQUENCY ABBREVIATION	LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIOND			PACKAGING	
			Tolerance	Stability	Temp Range		
ECS	240 = 24.000 MHz See P/N Guide	18 = 18 pF	-23G = ECS-23G	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	L = -10 ~ +70°C M = -20 ~ +70°C Y = -30 ~ +85°C N = -40 ~ +85°C	TR = Tape & Reel 1K/Reel

\*Contact ECS for availability

Rev.2017

**POCKET TAPE DIMENSIONS (mm)**



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
6.4	3.9	12.0	5.5	8.0	1.5	0.3	1.5	178	1000pcs

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

DEVELOPED FREQUENCIES	
Abbreviation	Frequency (MHZ)
080	8.000
100	10.000
120	12.000
160	16.000
184	18.432
200	20.000
240	24.000
250	25.000
480	48.000

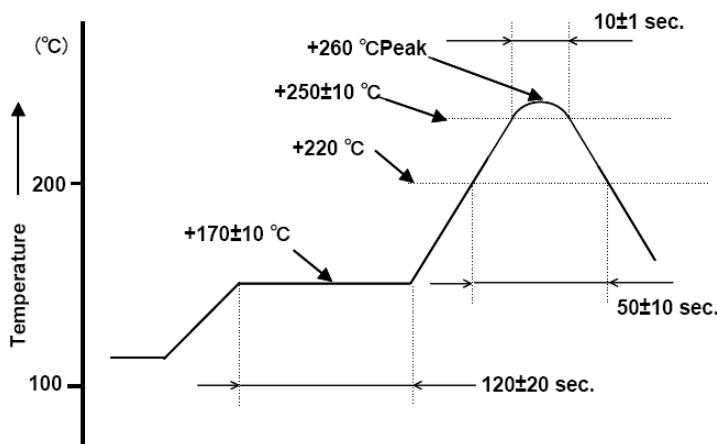


Figure 1) Suggested Reflow Profile

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