

The miniature ECS-2318 is a miniature SMD CMOS Crystal Oscillator. The 3.2 x 2.5 x 1.0 mm ceramic package is ideal for low voltage applications.

[Request a Sample](#)

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low Profile
- 3.2 x 2.5 mm Footprint
- Extended Temp Range
- RoHS Compliant

PARAMETERS	CONDITIONS	ECS-2318			UNITS
		MIN	TYP	MAX	
Frequency Range		0.5		50.000	MHz
Frequency Stability *	BN (-40 ~ +85°C)			± 50	ppm
Supply Voltage		+1.71	+1.8	+1.89	VDC
Input Current	0.5 ~ 20			2.5	mA
	20.1 ~ 40 MHz			3.0	mA
	40.1 ~ 50 MHz			3.5	mA
Standby Current	Pin 1 Low			10	µA
Output	CMOS			15	pF
Output voltage Level	Vol:10%V _{dd} max./V _{oh} :90%V _{dd} min.V DC				
Rise & Fall time	10%V _{dd} – 90%V _{dd}			10	ns
Duty Cycle	@ ½ V _{dd}			45/55	%
Disable delay time				150	ns
Startup time				10	ms
Aging				±5	ppm
Operating Temp		-40		+85	°C
Storage Temp		-55		+100	°C

DIMENSIONS (mm)

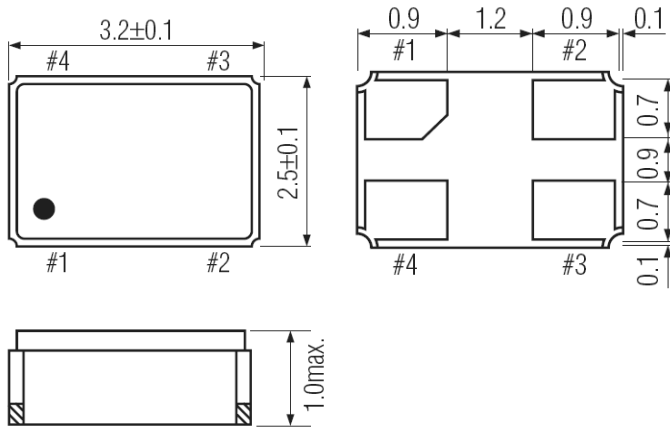


Figure 1) Top, Side, and Bottom views

PAD CONNECTIONS	
1	Tri-state
2	Ground
3	Output
4	Vdd

Tri State Function	
Pin 1	Output
High or NC	Active
Low	High Impedance

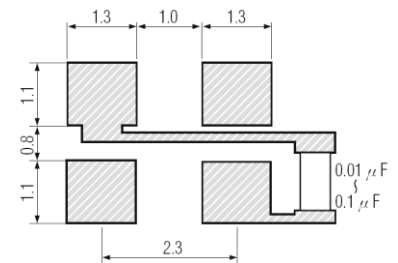


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-2318-200-BN-TR

ECS -	SERIES	FREQUENCY ABBREVIATION	STABILITY	TEMP RANGE	PACKAGING
	2318 3.2 x 2.5 mm +1.8V	200 = 20.000 MHz See Developed Frequencies Pg.2	A = ± 100 ppm B = ± 50 ppm C = ± 25 ppm **D = ± 20 ppm	Blank = -10 ~ +70°C M = -20 ~ +70°C N = -40 ~ +85°C	TR = Tape & Reel 1K/Reel

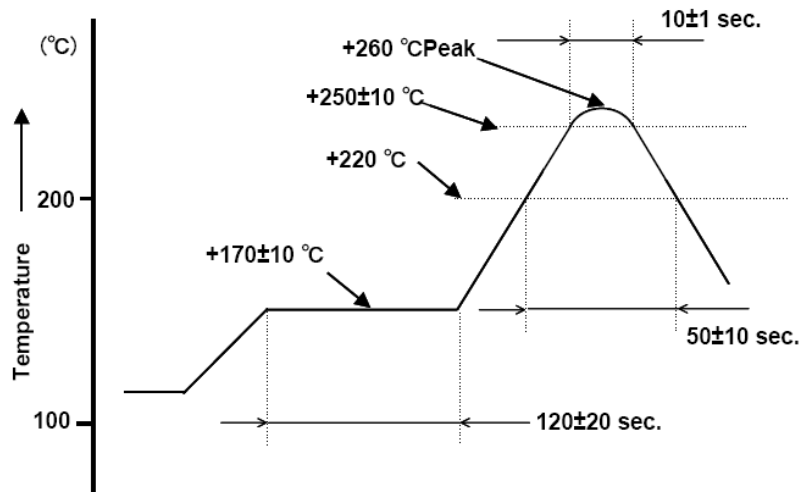
* Inclusive of +25°C tolerance, operating temperature, input voltage change, load change, shock and vibration.

** Contact ECS for availability over -40 ~ +85°C.

FREQUENCY ABBREVIATIONS

FREQUENCY MHz	CODE
10.000	100
12.000	120
16.000	160
19.200	192
20.000	200
24.000	240
25.000	250
26.000	260
27.000	270
32.000	320
40.000	400
44.000	440
50.000	500

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



POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
3.5	2.8	8.0	3.5	4.0	1.0	0.25	1.4	180	1000pcs