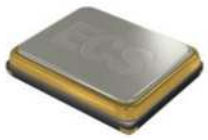
RoHS COMPLIANT

ECS-2520Q
AEC-Q200
SMD OSCILLATOR

The sub miniature ECS-2520Q is a miniature AEC-Q200 Qualified SMD HCMOS Oscillator. The 2.5 x 2.0 x 0.9 mm ceramic package is ideal for Automotive, Industrial and IOT applications.

ECS INC INTERNATIONAL®

ECX-2520Q SMD HCMOS XO



- Low Profile
- 2.5 x 2.0 mm Footprint
- Extended Temp Range
- RoHS Compliant
- AEC-Q200 Qualified

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-2520Q MIN	ECS-2520Q TYP	ECS-2520Q MAX	UNITS
Frequency Range		0.750		60.000	MHz
* Frequency Stability	-40 ~ +125°C (BS Opt)			±50	ppm
	-40 ~ +105°C (DP Opt)			±30	ppm
Power Supply	Vdd ±5%	+1.8, +2.5, +3.0, +3.3			V DC
Output	HCMOS		15		pF
Output voltage Level	VOL:10%Vdd max./VOH:90%Vdd min.				V DC
Rise & Fall time	10%Vdd – 90%Vdd			10	ns
Duty Cycle	@ ½ Vdd			45/55	%
Operating Temp*		-40		+125	°C
Storage Temp		-55		+125	°C

* Frequency Stability includes initial tolerance, temperature, supply voltage & load change reflow frequency shift, and aging.

CURRENT CONSUMPTION mA Max

FREQ.	~ 19 MHz	~ 39.9 MHz	~ 50 MHz	~ 60 MHz
+1.8V	2.5	3.0	3.5	4.0
+2.5V	4.5	5.5	6.5	7.0
+3.0V	5.5	6.5	7.5	8.0
+3.3V	6.0	7.0	8.0	8.5

DIMENSIONS (mm)

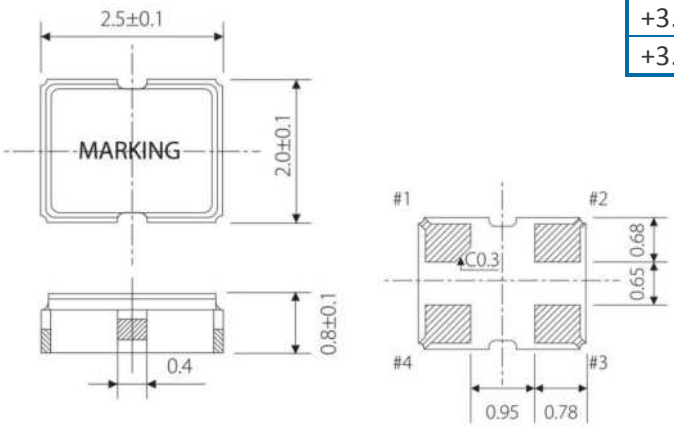


Figure 1) *Top, Side, and Bottom views*

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

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

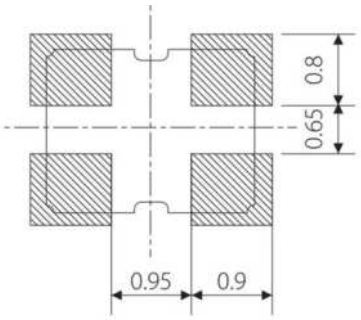


Figure 2) *Suggested Land Pattern*

PART NUMBERING GUIDE: Example ECS-2520Q-33-270-BS-TR

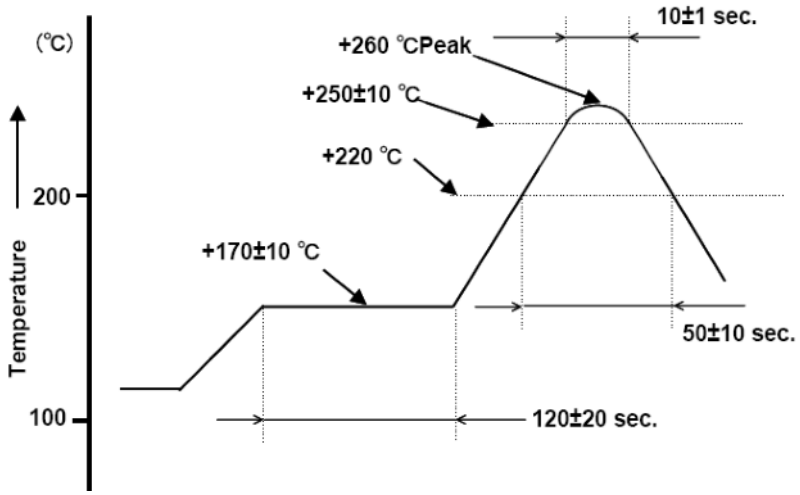
ECS - SERIES	Voltage	FREQUENCY ABBREVIATION	STABILITY	* TEMP RANGE	PACKAGING
2520Q 2.5 x 2.0 mm AEC-Q200 Oscillator	18 = +1.8V 25 = +2.5V 30 = +3.0V 33 = +3.3V	270 = 27.000 MHz See Developed Frequencies Pg.2	A= ±100 ppm B = ±50 ppm D = ±30 ppm	P = -40 ~ +105°C S = -40 ~ +125°C	TR = Tape & Reel 1K/Reel

Rev.2017

ECS-2520Q
AEC-Q200 SMD

DEVELOPED FREQUENCIES

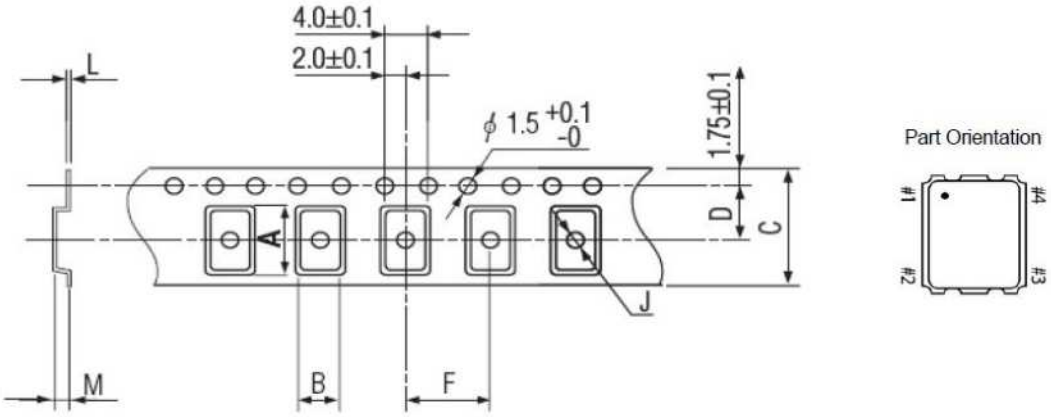
FREQUENCY MHz	CODE
26.000	260
27.000	270
33.000	330
48.000	480



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

Figure 1) *Suggested Reflow Profile*

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
2.8	2.3	8.0	3.5	4.0	1.0	0.25	1.1	180	1000pcs