ECS-2532HS
SMD CLOCK OSCILLATOR

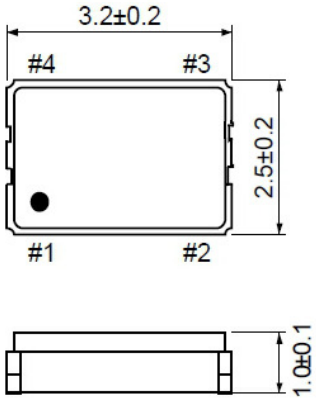
- High Stability Oscillator
- 2.5 x 3.2 mm Footprint
- Low Current Consumption
- RoHS Compliant

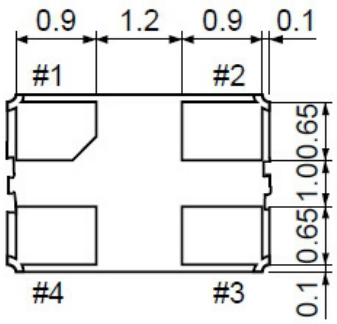
ECS-2532HS-2 (2.8V) and ECS-2532HS-3 (3.3V) subminiature High Stability SMD oscillators. Ideal for today's tight tolerance applications.

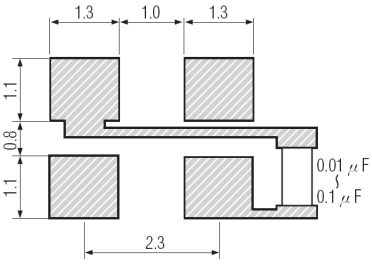
OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-2532HS-2 (+2.8V)			ECS-2532HS-3 (+3.3V)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		1.000		55.000	1.000		55.000	MHz
Operating Temperature	Standard	-40		+85	-40		+85	℃
Supply Voltage	VDD	+2.66	+2.8	+2.94	+3.135	+3.3	+3.465	VDC
Frequency Stability	Option E			± 20			± 20	ppm
	Option F			± 15			± 15	ppm
	Option G			± 10			± 10	ppm
Input Current	Pin 1 Open or ViH			10			10	mA
Stand-by Current	Pin 1 = VIL			10			10	µA
Output Symmetry	@ 50% VDD level			45/55			45/55	%
Rise and Fall Times	10% VDD to 90% level			5			5	ns
"0" level	VOL			10% VDD			10% VDD	VDC
"1" level	VOH	90% VDD			90% VDD			VDC
Output Load	CMOS			15			15	pF
Disable delay time				100			100	ns
Startup time				10			10	ms
Aging	@ +25℃ ±3℃ first year			2			2	ppm

TOP, BOTTOM, SIDE VIEWS & LAND PATTERN







Pin Connections	
Pin #1	Tri-State
Pin #2	Ground
Pin #3	Output
Pin #4	VDD

Tri-State Control Voltage	
Pad 1	Pad 3
Open	Output
VDD-0.5V Min.	Output
0.5V Max. (Note 1)	High Impedance

Note 1: Internal crystal oscillation to be halted (Pin #1=VIL)

PART NUMBERING GUIDE: Example ECS - 2532HS - 200 - 3 - G - TR

ECS	-	Series	-	Frequency Abbreviation	-	Voltage	-	Stability	-	Packaging
		2532HS		200 = 20.000 MHz See Frequency Abbreviations (Pg 2)		2 = +2.8V ±5% 3 = +3.3V ±5%		E = +/- 20 ppm F = +/- 15 ppm G = +/- 10 ppm		TR = Tape & Reel 500/Reel

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Frequency Abbreviations

FREQUENCY MHz	CODE
20.000	200
22.1184	221
24.000	240
26.000	260
27.000	270
32.000	320
40.000	400
44.000	440
50.000	500
54.000	540

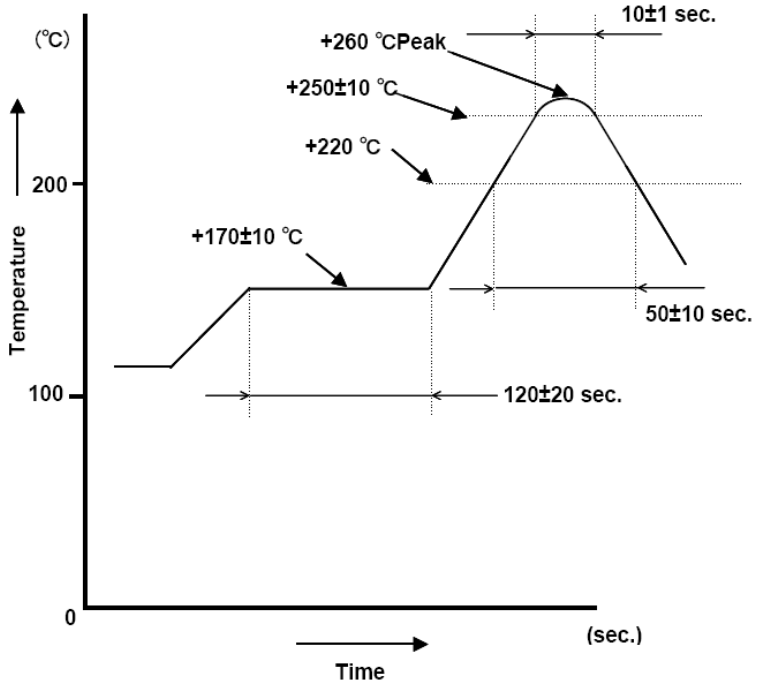
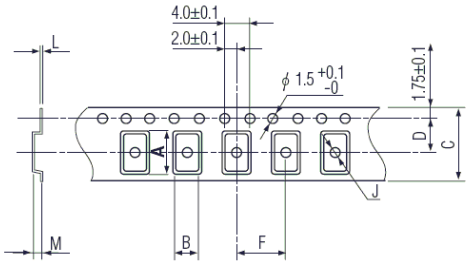


Figure 1) Suggested Reflow Profile

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	1.1	0.25	1.0	180	500

Figure 2) Pocket Tape Dimensions

Package Data	
Item	**Description**
Lid	Metal
Base	Ceramic
Sealing	AuSn
Terminal	Tungsten (metalized)
Plating	Gold/Nickel (Surface)/(Under)
RoHS	Compliant (Pb Free)

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