

ECS-3518 (1.8V) and ECS-3525 (2.5V) subminiature SMD oscillators, ideal for today's high density applications.

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OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

ECS-3518/3525



- 1.8V or 2.5V Versions
- 3.2 x 5.0 mm Footprint
- Extended Temp Range Option
- PbFree/RoHS Compliant

Parameters	Conditions	ECS-3518 (+1.8V)			ECS-3525 (+2.5V)			Units
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		1.544		125.00	1.544		125.00	MHz
Operating Temperature	Standard	0		+70	0		+70	°C
	Extended (N Option)	-40		+85	-40		+85	°C
Storage Temperature		-55		+125	-55		+125	°C
Supply Voltage	VDD	+1.62	+1.8	+1.98	+2.25	+2.5	+2.75	VDC
Frequency Stability*	Option A			±100			±100	PPM
	Option B			±50			±50	PPM
	Option C			±25			±25	PPM
Input Current	1.544 ~ 9.999 MHz			6			7	mA
	10.000 ~ 34.999 MHz			7			8	mA
	35.000 ~ 49.999 MHz			15			20	mA
	50.000 ~ 125.000 MHz			25			30	mA
Output Symmetry	@50% VCC Level			40/60			40/60	%
	@50% VCC Level (T Option)			45/55			45/55	%
Rise and Fall Times	10% VDD to 90% Level			5			6	ns
"0" Level	VOL			VCC *10%			VCC *10%	VDC
"1" Level	VOH	VCC *90%			VCC *90%			VDC
Output Load	HCMOS			30			30	pF
Startup Time				10			10	ms

* Note: Inclusive of 25°C tolerance, operating temperature, range, input voltage change, load change, shock, aging and vibration.

Part Numbering Guide: ECS-3525-200-AN-TR

ECS	Series	Frequency Abbreviations	Stability	Temperature	Output Symmetry	Packaging
ECS	3518 = +1.8V 3525 = +2.5V	200 = 20 MHz	A = ±100 ppm B = ±50 ppm C = ±25 ppm	Blank = -0 ~ 70°C M = -20 ~ +70°C N = -40 ~ +85°C	Blank = 40/60 STD T = 45/55	TR = Tape & Reel 1K/Reel

Package Dimensions (mm)

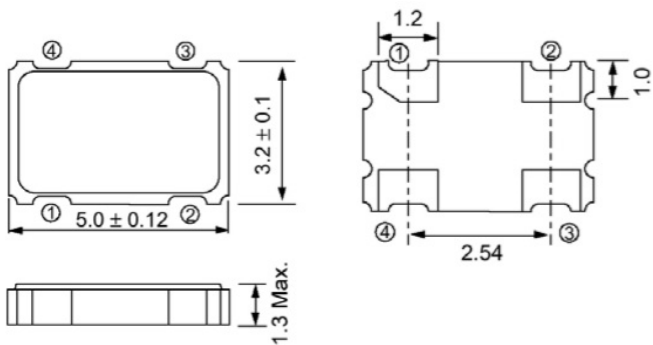


Figure 1) Top, Side, and Bottom views

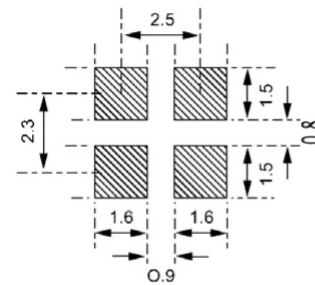


Figure 2) Land Pattern

Pad Connections	
#1	Tri-State
#2	Ground
#3	Output
#4	VCC

Tri-State Control Voltage	
Pad 1	Pad 3
Open	Oscillation
1 Level	Oscillation
0 Level	High Impedance

Frequency Abbreviations

FREQUENCY MHz	CODE
4.000	040
8.000	080
10.000	100
12.000	120
14.31818	143
24.000	240
32.000	320
33.333	333
40.000	400
48.000	480
50.000	500
60.000	600
64.000	640
66.666	666
80.000	800
100.000	1000
125.000	1250

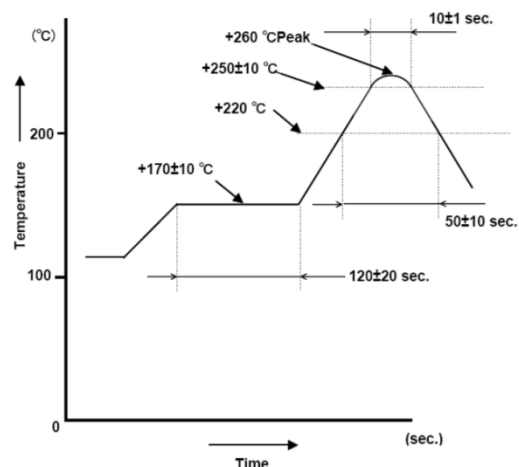
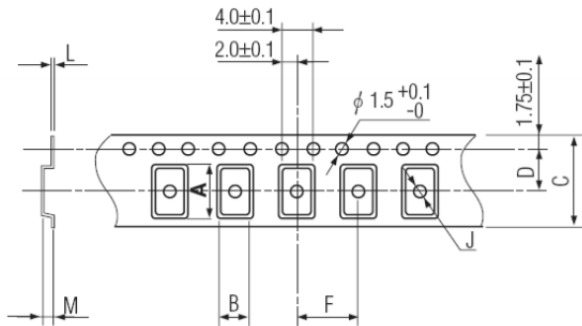


Figure 3) Suggested Reflow Profile

Tape Dimensions (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
5.25	3.45	12.0	5.5	8.0	2.0	0.3	1.8	178	1000pcs

Package Data	
Item	Description
Lid	Metal
Base	Ceramic
Sealing	Seam Weld
Terminal	Tungsten (Metalized)
Plating	Gold/Nickel (Surface)/(Under)
RoHS	Compliant (PbFree)
MSL	1

Figure 4) Pocket Tape Dimensions