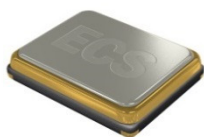


The ECS-3225MV is a miniature SMD HCMOS Oscillator with Multi Volt capability of 1.62 ~ 3.63 V. The 3.2 x 2.5 x 1.2 mm ceramic package is ideal for Low Power/Portable, Industrial and IOT.

Request a Sample

ECS-3225MV SMD XO



- 3.2 x 2.5 mm Footprint
- Extended Temp Range
- RoHS Compliant
- Wide Supply Voltage
- Low Jitter

DIMENSIONS (mm)

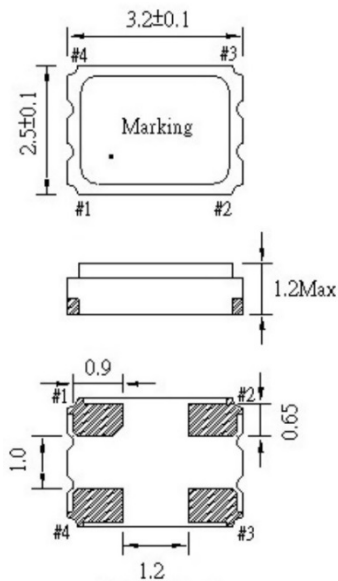


Figure 1) Top, Side, and Bottom views

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-3225MV			UNITS
		MIN	TYP	MAX	
Frequency Range		6.000		50.000	MHz
* Frequency Stability	-40 ~ +85°C (BN Opt)			±50	ppm
Supply Voltage		1.62		3.63	V
Output Load	CMOS			15	pF
Output voltage Level	V _{OL} : 0.2 V _{dd} max./V _{OH} : 0.8V _{dd} min. V DC				
Rise & Fall time	20%V _{dd} – 80%V _{dd}			7	nS
Start Up Time				10	mS
Phase Jitter	12 KHz to 20 MHz			1	pS
Duty Cycle	@ ½ V _{dd}		45/55		%
Input Current (No Load)	1.000 ~ 9.999MHz			3	mA
	10.000 ~ 39.999MHz			4	mA
	40.000 ~ 50.000MHz			5	mA
Aging	Per year			±3	ppm
Standby Current				10	µA
Operating Temp*		-40		+85	°C
Storage Temp		-55		+125	°C

PAD CONNECTIONS

1	Tri-state
2	Gnd
3	Output
4	Vdd

Tri State Function

Pin 1	Output
0.7 * V _{dd} Min OR NC	Active
0.3 * V _{dd} Max.	High Impedance

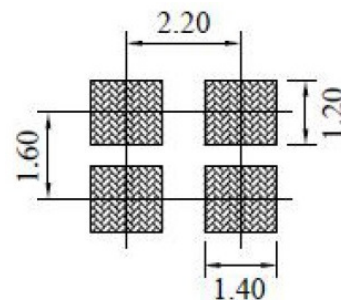


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-3225MV-250-BN-TR

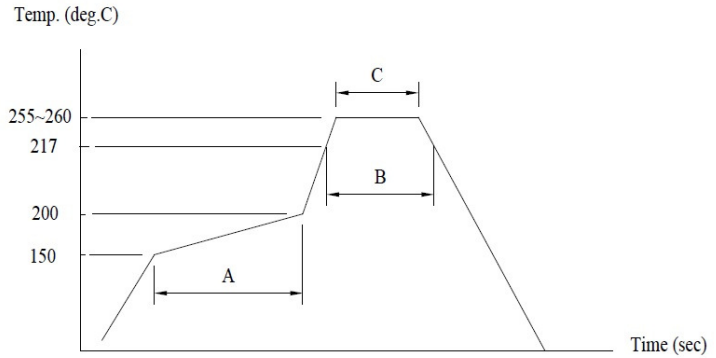
ECS	SERIES	FREQUENCY ABBREVIATION	* STABILITY	TEMP RANGE -	PACKAGING
	3225MV 3.2 x 2.5 mm Multi Volt Oscillator	250 = 25.000 MHz See Developed Frequencies Pg.2	A= ±100 ppm B = ±50 ppm C= ±25 ppm	M = -20 ~ +70°C N = -40 ~ +85°C	-TR = Tape & Reel 1K/Reel

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

DEVELOPED FREQUENCIES

FREQUENCY MHz	CODE
16.000	160
20.000	200
24.000	240
25.000	250
32.000	320
48.000	480
50.000	500

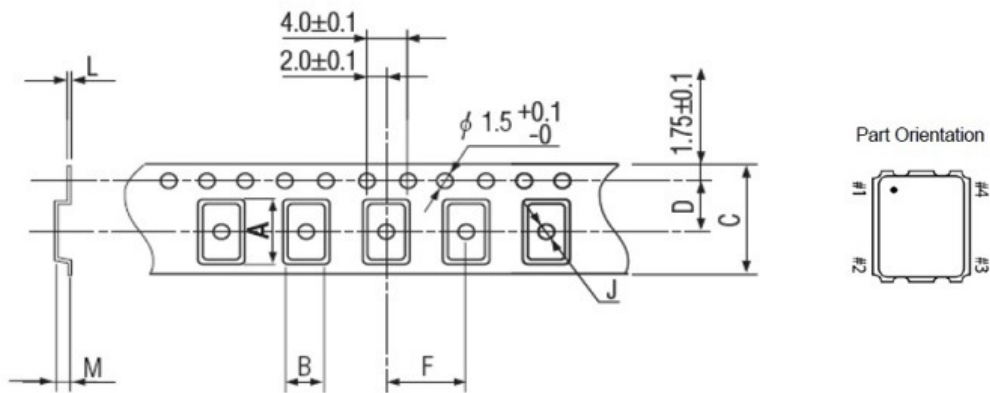
SOLDER PROFILE
Peak solder Temp +260°C ±5°C 10 ±5 Sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au



(A)→Preheating area : 150~200°C, 60~120sec.
 (B)→Heating area : 217°C, 60~150sec.
 (C)→Peak temperature : 255~260°C, 30sec. Max.
 Ramp-up rate (217→260°C) : 3°C/sec. Max.
 Ramp-down rate (260→217°C) : 6°C/sec. Max.
 Time 25°C→260°C : 480sec. Max.
 *Reference JEDEC J-STD-020

Figure 1) Suggested Reflow Profile

POCKET TAPE DIMENSIONS (mm)



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
3.4	2.7	8.0	3.5	4.0	1.0	0.25	1.4	178	1000pcs