

The ECS-1612MV is a miniature SMD HCMOS Oscillator with Multi Volt capability of 1.6 ~ 3.6 V. The 1.6 x 1.2x 0.7 mm ceramic package is ideal for Low Power/Portable, Industrial and IOT.

Request a Sample



- 1.6 x 1.2 mm Footprint
- Extended Temp Range
- RoHS Compliant
- Wide Supply Voltage
- Low Jitter

DIMENSIONS (mm)

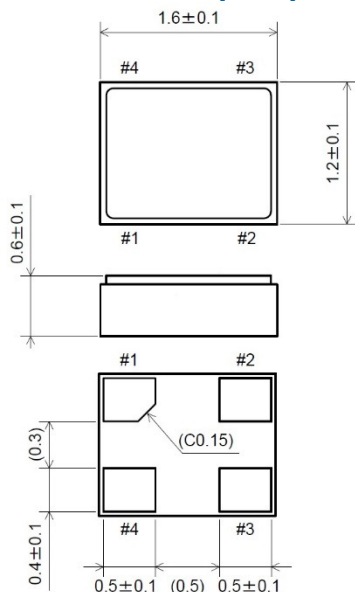


Figure 1) Top, Side, and Bottom views

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-1612MV			UNITS
		MIN	TYP	MAX	
Frequency Range		3.000		80.000	MHz
* Frequency Stability	-40 ~ +85°C (CN Opt)			±25	ppm
Supply Voltage		1.6		3.63	V
Output Load	CMOS			15	pF
Output voltage Level	VOL: 0.4 Max./VOH: Vdd-0.4 Min.V DC				
Rise & Fall time	10%V _{dd} - 90%V _{dd}			4.5	ns
Start Up Time	V _{DD} 1.8V			5	mS
Phase Jitter	12 KHz to 5 MHz			1	pS
Duty Cycle	@ ½ V _{dd}			45/55	%
Standby Current				10	µA
Operating Temp*	N Option	-40		+85	°C
Storage Temp		-40		+105	°C

CURRENT CONSUMPTION mA

FREQ.	~ 20 MHz	~ 50 MHz	~ 80 MHz
+1.8V	2 Typ./2.5 Max.	2.5 Typ./ 3 Max.	3 Typ./4 Max.
+2.5V	2 Typ./3 Max.	2.5 Typ./ 4 Max.	3 Typ./5 Max.
+3.3V	3 Typ./4 Max.	4 Typ./ 5 Max.	5 Typ./7 Max.

PAD CONNECTIONS

1	Stand-by
2	Gnd
3	Output
4	Vdd

Tri State Function

Pin 1	Output
0.7 * V _{dd} Min	Active
0.3 * V _{dd} Max.	High-Z

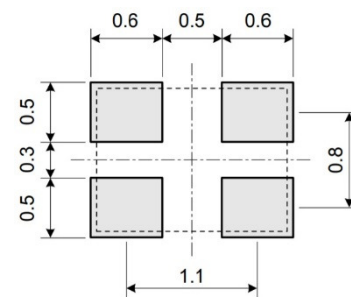


Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-1612MV-250-CN-TR

ECS	SERIES	FREQUENCY ABBREVIATION	* STABILITY	TEMP RANGE -	PACKAGING
	1612MV 1.6 x 1.2 mm Multi Volt Oscillator	250 = 25.000 MHz See Developed Frequencies Pg.2	A = ±100 ppm B = ±50 ppm G = ±30 ppm C = ±25 ppm D = ±20 ppm	M = -20 ~ +70°C N = -40 ~ +85°C	-TR = Tape & Reel 3K/Reel

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

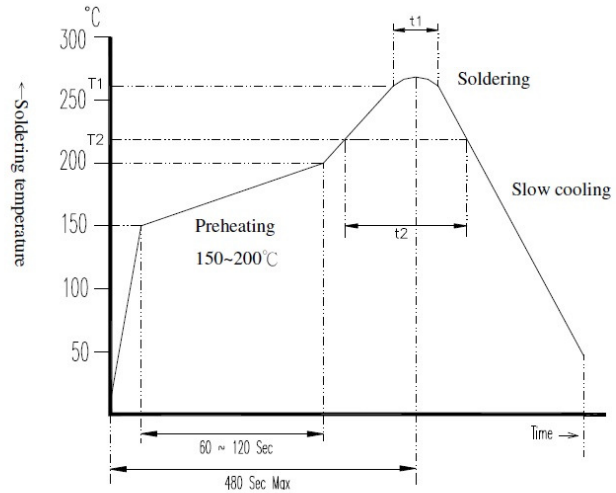


ECS-1612MV SMD Multi Volt Crystal Oscillator



DEVELOPED FREQUENCIES

CODE	FREQUENCY MHz
80	8.000
120	12.000
122.8	12.288
192	19.200
240	24.000
250	25.000
260	26.000
500	50.000



Application\Temperature	Time	T1 / t1	T2 / t2
Lead Free	260±5°C / 10±5 Sec Max	217°C Min / 60~150 Sec	
Non Lead Free	240±5°C / 10±5 Sec Max	183°C Min / 60~150 Sec	

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

Figure 1) Suggested Reflow Profile

POCKET TAPE DIMENSIONS (mm)

