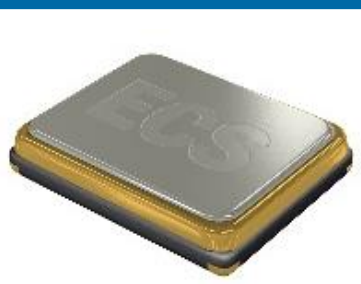
ECS-5032MV

SMD MultiVolt™ Crystal Oscillator

The ECS-5032MV is a miniature SMD HCMOS Oscillator with MultiVolt™ capability of 1.6 ~ 3.6 V. The 5.0 x 3.2 x 1.3 mm ceramic package is ideal for Low Power/Portable, Industrial, and IoT applications.

Request a Sample

ECS-5032MV SMD XO



- 5.0 x 3.2 mm Footprint
- Extended Temp Range
- RoHS Compliant
- Wide Supply Voltage
- Low Jitter
- Compatible with 1.8V, 2.5V or 3.3V Power Supply

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-5032MV			UNITS
		MIN	TYP	MAX	
Frequency Range		0.750		160.00	MHz
* Frequency Stability	-40 ~ +85°C (BN Opt)			±50	ppm
Supply Voltage		1.6		3.6	V
Output Load	CMOS			15	pF
Output voltage Level	VOL: 10% Vdd max. / VOH: 90% Vdd min.V DC				
Rise & Fall time	10% Vdd – 90% Vdd			7	ns
Start Up Time	@ 90% Vdd			5	mS
Phase Jitter	12 kHz to 20 MHz			1	pS
Duty Cycle	@ ½ Vdd			45/55	%
Standby Current				10	µA
Operating Temp*		-40		+85	°C
Storage Temp		-55		+125	°C

CURRENT CONSUMPTION mA Max

FREQ.	~ 19 MHz	~ 39.9 MHz	~ 50 MHz	~ 60 MHz	~ 100 MHz	~ 160 MHz
+1.8V	2.5	3.0	3.5	4.0	35.0	40.0
+2.5V	4.5	5.5	6.5	7.0	35.0	40.0
+3.0V	5.5	6.5	7.5	8.0	35.0	40.0
+3.3V	6.0	7.0	8.0	8.5	35.0	40.0

DIMENSIONS (mm)

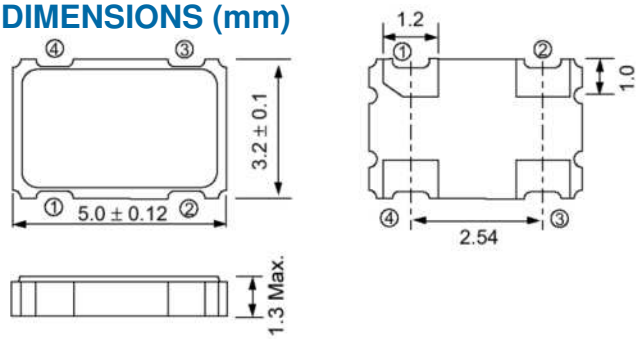


Figure 1) *Top, Side, and Bottom views*

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

Tri State Function	
Pin 1	Output
0.7 * Vdd Min or NC	Active
0.3 * Vdd Max.	High Impedance

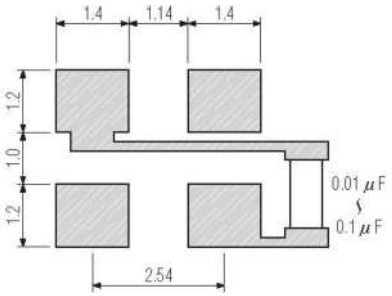


Figure 2) *Suggested Land Pattern*

PART NUMBERING GUIDE: Example ECS-5032MV-250-BN-TR

ECS	-	SERIES	FREQUENCY ABBREVIATION	-	* STABILITY	TEMP RANGE -	PACKAGING
ECS		5032MV 5.0 x 3.2 mm MultiVolt™ Oscillator	250 = 25.000 MHz See Developed Frequencies Pg. 2		A= ±100 ppm B = ±50 ppm C= ±25 ppm D = ±20 ppm	M = -20 ~ +70°C N = -40 ~ +85°C P = -40 ~ +105°C	-TR = Tape & Reel 1K/Reel

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

Rev. 2025

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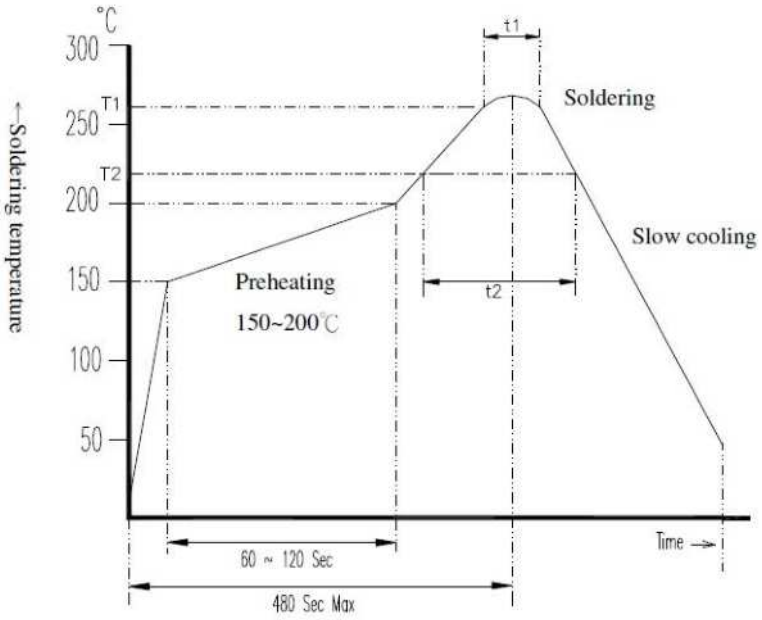
ECS-5032MV

SMD MultiVolt™
Crystal Oscillator

DEVELOPED FREQUENCIES

FREQUENCY MHz	CODE	FREQUENCY MHz	CODE
8.000	80	32.000	320
10.000	100	33.33333	333.3
12.000	120	371.25	371.2
12.288	122.8	40.000	400
14.31818	143	48.000	480
16.000	160	50.000	500
20.000	200	125.000	1250
24.576	245.7		
25.000	250		
27.000	270		
29.490	294.9		

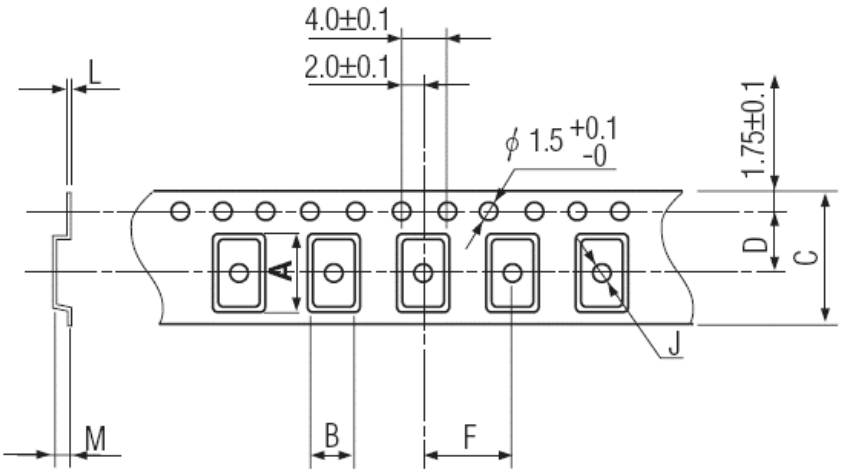
SOLDER PROFILE
Peak solder Temp +260°C ±5°C 10 ±5 Sec Max.
2 Cycles Max.
MSL 1, Lead Finish Au



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

Figure 3) *Suggested Reflow Profile*

POCKET 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