VXM7-9022-12M0000000

3.2 x 2.5mm Crystal

For use with Microchip 32 bit MCU Product Line

Helping Customers Innovate, Improve & Grow

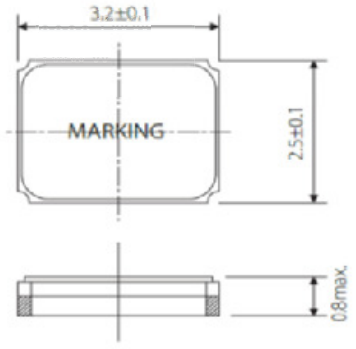
Table 1. Electrical Performance

Parameter	Symbol	Min.	Typ	Max	Units
Nominal Frequency[1]	F_{NOM}		12.0000		MHz
Mode		Fundamental, AT - Cut			
Operating Temperature Range	T_{OP}	-40/85			°C
Stability Over T_{OP}[2]	F_{STAB}			±50	ppm
Frequency Tolerance[2]	F_{TOL}			±30	ppm
Load Capacitance	C_L		12		pF
Shunt Capacitance	C_o			5	pF
ESR				100	ohms
Drive Level		0.01	10	100	uW
Aging / 1st year (at 25 °C)	F_{AGE}			±5	ppm
Insulation Resistance		500			MOhm
Storage Temperature	T_{STO}	-40		90	°C

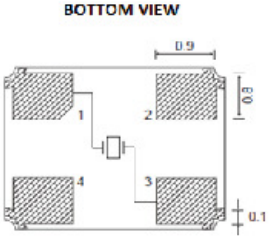
Notes:
1. Referenced to the Frequency at 25 °C.
2. Frequency measured at 25 °C ± 3 °C.

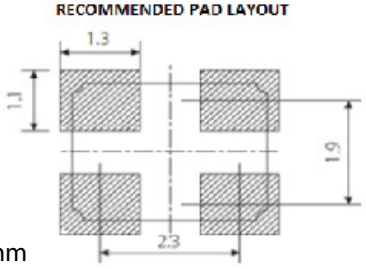
Product is compliant to RoHS directive and fully compatible with lead free assembly.

Package Drawing



Marking
XXMXX
VYYMC
where
XXMXX = Frequency
V = VECTRON
YY = Year (Ex 19: 2019)
M = Month (A:Jan, B: Feb, C: March...)
C = Manufacturing Location





All Dimensions in mm

Table 2. Environmental Compliance	
Parameter	**Conditions**
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Temperature Cycle	MIL-STD-883, Method 1010, Condition B
Solderability	MIL-STD-202-210, Condition B
Gross and Fine Leak	MIL-STD-883, Method 1014
Altitude	MIL-STD-883, Method 1001, Condition B
Moisture Sensitivity Level	MSL 1
Contact Pads	Gold (0.2 um min) over Nickel
Weight	20 mg

Reliability & IR Compliance

Solderprofile:

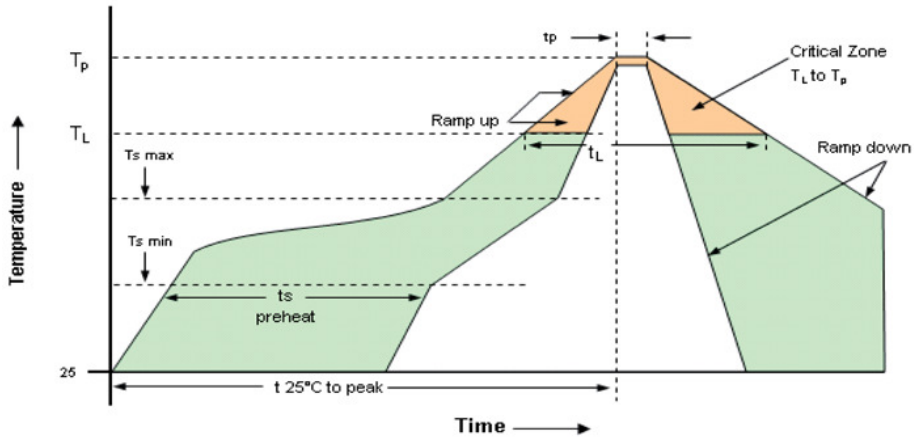
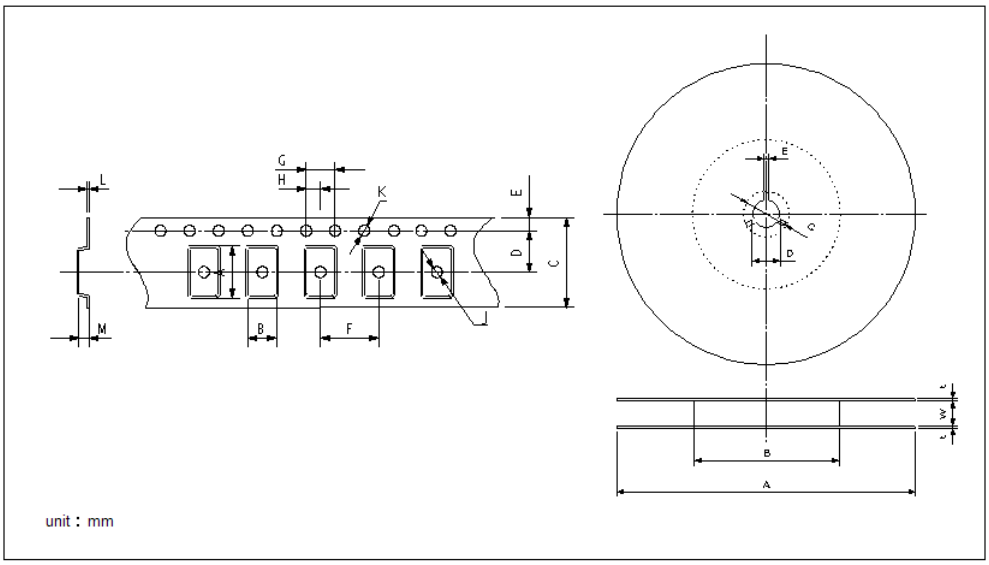


Table 3: Reflow Profile		
Parameter	**Symbol**	**Value**
PreHeat Time Ts-min Ts-max	t_S	60 sec Min, 260 sec Max 150°C 200°C
Ramp Up	R_{UP}	3 °C/sec Max
Time Above 217 °C	t_L	60 sec Min, 150 sec Max
Time To Peak Temperature	T_{AMB-P}	480 sec Max
Time at 260 °C	t_P	30 sec Max
Ramp Down	R_{DN}	6 °C/sec Max

Tape & Reel

Table 4. Tape and Reel Dimensions (mm)

Tape												Reel						
A	B	C	D	E	F	G	H	J	K	L	M	A	B	C	D	E	W	T
3.6	2.9	8.0	3.5	1.75	4.0	4.0	2.0	0.5	1.55	0.25	1.0	180	60	21.0	13.0	2.0	9.0	2.0



1K pieces per reel

Ordering Information

VXM7 - 9022- 12M0000000

Product
3.2 x 2.5mm, Crystal

SCD

Frequency in MHz

Revision History

Revision Date	Approved	Description
July 11, 2019	FB	rev0.1 Initial

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