VXM7-9013-25M0000000

3.2 x 2.5mm Crystal
Crystal Data Sheet

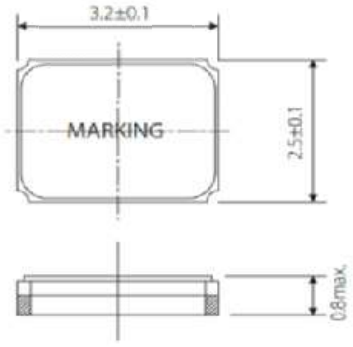
Table 1. Electrical Performance

Parameter	Symbol	Min.	Typ	Max	Units
Nominal Frequency[1]	F_{NOM}		25.0000		MHz
Mode		Fundamental, AT - Cut			
Operating Temperature Range	T_{OP}	-40/85			°C
Stability Over T_{OP}[2]	F_{STAB}			±30	ppm
Frequency Tolerance[2]	F_{TOL}			±30	ppm
Load Capacitance	C_L		10		pF
Shunt Capacitance	C_o			5	pF
ESR				50	ohms
Shunt Capacitance			2		pF
Drive Level		0.01	10	300	uW
Aging / 1st year (at 25 °C)	F_{AGE}			±3	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.

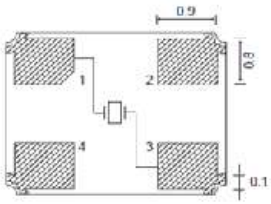
Product is compliant to RoHS3 directive and fully compatible with lead free assembly.

Package Drawing

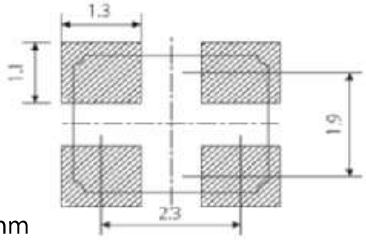


Marking
25M000
.YYWW C
where
25M000 = Frequency, 25.000 MHz
YY = Year
WW=Week
C = Manufacturing Location

BOTTOM VIEW



RECOMMENDED PAD LAYOUT



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 over Nickel

Reliability & IR Compliance

Solderprofile:

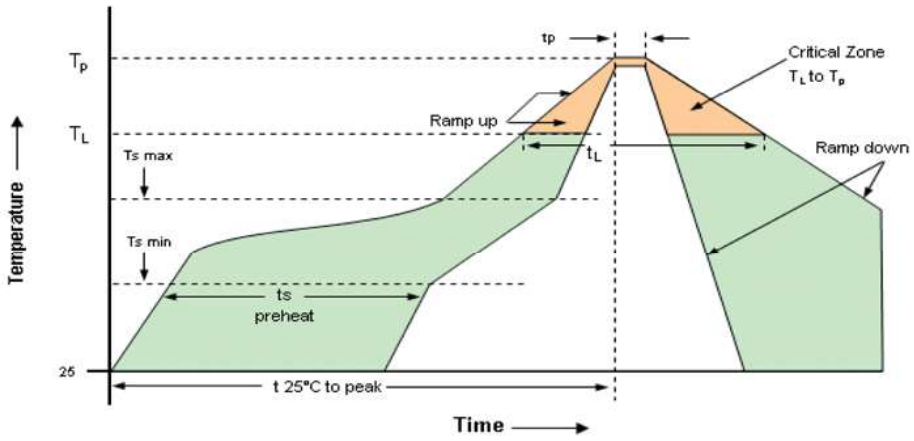
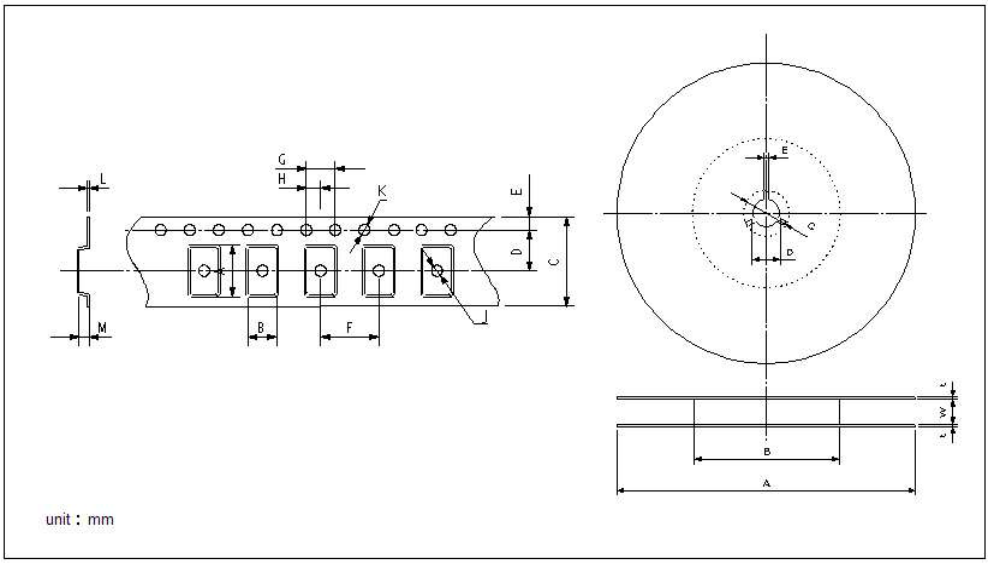


Table 3: Reflow Profile		
Parameter	**Symbol**	**Value**
PreHeat Time Ts-min Ts-max	t_S	60 sec Min, 260 sec Max 150°C 200°C
Ramp Up	R_{UP}	3 °C/sec Max
Time Above 217 °C	t_L	60 sec Min, 150 sec Max
Time To Peak Temperature	T_{AMB-P}	480 sec Max
Time at 260 °C	t_P	30 sec Max
Ramp Down	R_{DN}	6 °C/sec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



3K pieces per reel

Ordering Information

VXM7 - 9013- 25M0000000xx

Product
3.2 x 2.5mm, Crystal

SCD

Frequency in MHz

Packaging
TR: Tape and Reel
blank: Cut Tape / non TR quantities

Example:
VXM7-9013-25M0000000TR **Tape and Reel**
VXM7-9013-25M0000000 **Cut Tape**

Revision History

Revision Date	Approved	Description
Sept 03, 2019	FB	rev0.1 Initial
Oct 14, 2020	FB	Add tape and reel ordering option, 3K per reel
April 09, 2024	FB	Update max power from 100uW to 300uW, update logo's
Sept 25, 2025	FB	Update ESR from 60ohms to 50ohms

MICROCHIP

Vectron™ Oscillators