



## **Surface-Mount Oscillator**



The XOSM-573 series is an ultra miniature package clock oscillator with dimensions 7.0 mm x 5.0 mm x 1.9 mm. It is mainly used in portable PC and telecommunication devices and equipment

#### **FEATURES**

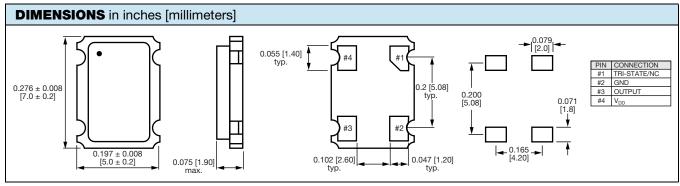
- Size: 7.0 x 5.0 x 1.9 (mm)
- Miniature package
- Tri-state enable / disable
- TTL/HCMOS compatible
- Tape and reel
- I<sub>R</sub> re-flow
- 3.3 V input voltage
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>



STANDARD ELECTRICAL SPECIFICATIONS			
PARAMETER	SYMBOL	CONDITION	VALUE
Frequency range	Fo	-	1.500 MHz to 100.000 MHz
Frequency stability (1)		All conditions	± 20 ppm, ± 25 ppm, ± 30 ppm, ± 35 ppm, ± 50 ppm, ± 100 ppm
Operating temperature range	T <sub>OPR</sub>	-	0 °C to 70 °C
			-40 °C to +85 °C (option)
Storage temperature range	T <sub>STG</sub>	-	-55 °C to +125 °C
Power supply voltage	$V_{DD}$	-	3.3 V ± 10 %
Aging (first year)		25 °C ± 3 °C	± 5 ppm
Supply current	I <sub>DD</sub> -	1.500 MHz to 20.000 MHz	10 mA max.
		20.001 MHz to 50.000 MHz	20 mA max.
		50.001 MHz to 67.000 MHz	30 mA max.
		67.001 MHz to 100.000 MHz	55 mA max.
Output symmetry	Sym	At ½ V <sub>DD</sub>	40 %/60 % (45 %/55 % option)
Rise/fall time	t <sub>r</sub> /t <sub>f</sub>	1.500 MHz to 50.000 MHz	6 ns
		50.001 MHz to 80.000 MHz	4 ns
		80.001 MHz to 100.000 MHz	2 ns
Output voltage	V <sub>OH</sub>	-	90 % V <sub>DD</sub> min.
	V <sub>OL</sub>	-	10 % V <sub>DD</sub> max.
Output load		-	2 TTL or 15 pF
Start-up time	t <sub>s</sub>	-	10 ms max.
Pin 1, tri-state function		=	Pin 1 = H or open (output active at pin 3)
			Pin 1 = L (high impedance at pin 3)

#### Note

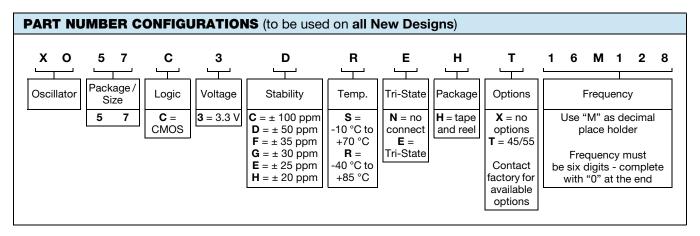
(1) Include: 25 °C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration



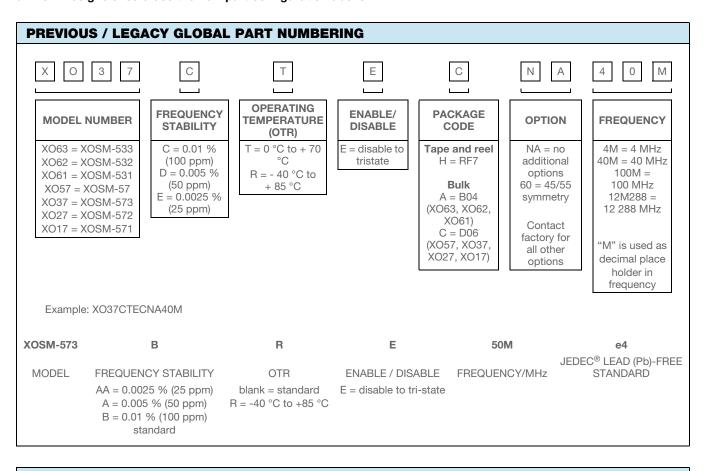
#### Note

A 0.01 μF bypass capacitor should be placed between V<sub>DD</sub> (pin 4) and GND (pin 2) to minimize power supply line noise





Previous / legacy part number information: still valid for existing designs; all New Designs should use the new part configuration above



# Line 1: M2809XXXXX (part number) Line 2: XX.XXXXM (frequency) Line 3: yywwv (date/factory code)



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