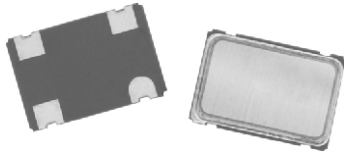


## Surface Mount Oscillator



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 [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

STANDARD ELECTRICAL SPECIFICATIONS			
PARAMETER	SYMBOL	CONDITION	VALUE
Frequency range	F <sub>O</sub>	-	1.500 MHz to 100.000 MHz
Frequency stability <sup>(1)</sup>		all conditions	± 25 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 <sub>DD</sub>	-	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

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

DIMENSIONS in inches [millimeters]											
<table border="1"> <thead> <tr> <th>PIN</th> <th>CONNECTION</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>TRI-STATE/NC</td> </tr> <tr> <td>#2</td> <td>GND</td> </tr> <tr> <td>#3</td> <td>OUTPUT</td> </tr> <tr> <td>#4</td> <td>V<sub>DD</sub></td> </tr> </tbody> </table>		PIN	CONNECTION	#1	TRI-STATE/NC	#2	GND	#3	OUTPUT	#4	V <sub>DD</sub>
PIN	CONNECTION										
#1	TRI-STATE/NC										
#2	GND										
#3	OUTPUT										
#4	V <sub>DD</sub>										

### 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



ORDERING INFORMATION					
<b>XOSM-573</b>	<b>B</b>	<b>R</b>	<b>E</b>	<b>50M</b>	<b>e4</b>
MODEL	FREQUENCY STABILITY AA = 0.0025 % (25 ppm) A = 0.005 % (50 ppm) B = 0.01 % (100 ppm) standard	OTR blank = standard R = - 40 °C to + 85 °C	ENABLE/DISABLE E = disable to tri-state	FREQUENCY/MHz	JEDEC LEAD (Pb)-FREE standard

GLOBAL PART NUMBER												
X	O	3	7	C	T	E	C	N	A	5	0	M
MODEL				FREQUENCY STABILITY	OTR	ENABLE/DISABLE	PACKAGE CODE	OPTIONS		FREQUENCY		

GLOBAL PART NUMBERING OPTIONS												
X	O	5	7	C	T	E	C	N	A	4	0	M
<b>MODEL NUMBER</b>				<b>FREQUENCY STABILITY</b>	<b>OPERATING TEMPERATURE (OTR)</b>	<b>ENABLE/DISABLE</b>	<b>PACKAGE CODE</b>	<b>OPTION</b>		<b>FREQUENCY</b>		
XO63 = XOSM-533 XO62 = XOSM-532 XO61 = XOSM-531 XO57 = XOSM-57 XO37 = XOSM-573 XO27 = XOSM-572 XO17 = XOSM-571				C = 0.01 % (100 ppm) D = 0.005 % (50 ppm) E = 0.0025 % (25 ppm)	T = 0 °C to + 70 °C R = - 40 °C to + 85 °C	E = Disable to tristate	<b>Tape and reel</b> H = RF7  <b>Bulk</b> A = B04 (XO63, XO62, XO61) C = D06 (XO57, XO37, XO27, XO17)	NA = No additional options 60 = 45/55 symmetry  Contact factory for all other options		4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12 288 MHz  M is used as decimal place holder in frequency		
Example: XO57CTECNA40M												

PART MARKING	
Line 1:	M2809XXXXX (part number)
Line 2:	XX.XXXXM (frequency)
Line 3:	yywwvv (date/factory code)



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