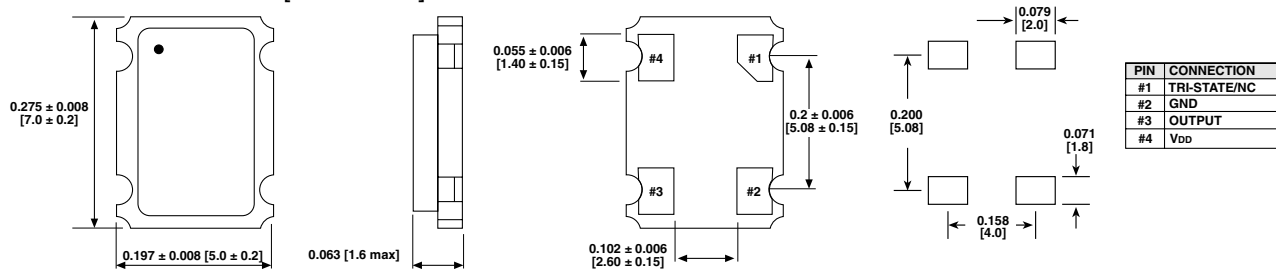# Surface Mount Oscillator

FEATURES
- Miniature Package
- Tri-state enable/disable
- HCMOS compatible
- Tape and Reel
- IR Re-flow
- 2.5 V input voltage
- 100 % Lead (Pb)-free and RoHS compliant

Pb-free

RoHS COMPLIANT

The XOSM-572 series is an ultra miniature package clock oscillator with dimensions 7.0 x 5.0 x 1.5 mm. It is mainly used in portable PC and telecommunication devices and equipment.

STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER		SYMBOL	CONDITION	XOSM-572
Frequency Range		F_O		1 MHz ~ 100.000 MHz
Frequency Stability*			All Condition*	± 25 ppm, ± 50 ppm, ± 100 ppm
Operating Temperature		T_{OPR}		0 °C ~ 70 °C (- 40 °C ~ + 85 °C option)
Storage Temperature Range		T_{STG}		- 55 °C ~ + 125 °C
Power Supply Voltage		V_{DD}		2.5 V ± 10 %
Aging (First Year)			25 °C ± 3 °C	± 5 ppm
Supply Current		I_{DD}	1.000 MHz to 23.999 MHz	12 mA Max
			24.000 MHz to 49.999 MHz	15 mA Max
			50.000 MHz to 69.999 MHz	20 mA Max
			70.000 MHz to 100.000 MHz	30 mA Max
Output Symmetry		Sym	At 1/2 V_{DD}	40/60 % (45/55 % Option)
Rise Time		T_r	10 % V_{DD} ~ 90 % V_{DD}	7 ns Max
Fall Time		T_f	90 % V_{DD} ~ 10 % V_{DD}	7 ns Max
Output Voltage		V_{OH}		90 % V_{DD} Min
		V_{OL}		10 % V_{DD} Max
Output Load	HCMOS Load			30 pF Max
Start-up Time			Ts	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

* Include: 25 °C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration.

DIMENSIONS in inches [millimeters]

PIN	CONNECTION
#1	TRI-STATE/NC
#2	GND
#3	OUTPUT
#4	V_{DD}

0.275 ± 0.008 [7.0 ± 0.2]
0.197 ± 0.008 [5.0 ± 0.2]
0.063 [1.6 max]
0.055 ± 0.006 [1.40 ± 0.15]
0.2 ± 0.006 [5.08 ± 0.15]
0.102 ± 0.006 [2.60 ± 0.15]
0.200 [5.08]
0.079 [2.0]
0.071 [1.8]
0.158 [4.0]

***note: A 0.01 µF bypass capacitor should be placed between V_{DD} (Pin4) and GND (Pin2) to minimize power supply line noise

ORDERING INFORMATION

XOSM-572 MODEL	B FREQUENCY STABILITY AA = 0.0025 % (25 ppm) A = 0.005 % (50 ppm) B = 0.01 % (100 ppm)	R OTR Blank = Standard R = - 40 °C to + 85 °C	E ENABLE/DISABLE E = Disable to Tristate	50 M FREQUENCY/MHz	e4 JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

X	O	2	7		C		T		E		C		N	A		5	0	M

MODEL	FREQUENCY STABILITY	OTR	ENABLE/ DISABLE	PACKAGE CODE	OPTIONS	FREQUENCY

Surface Mount Oscillator

GLOBAL PART NUMBERING

| X | O | 5 | 2 | | C | | T | | E | | L | | N | A | | 4 | 0 | M |

MODEL NUMBER	FREQUENCY STABILITY	OPERATING TEMPERATURE (OTR)	ENABLE/ DISABLE	PACKAGE CODE	OPTIONS	FREQUENCY
XO53 = XO-53 XO54 = XO-54 XO34 = XO-543 XO52 = XO-52 XO32 = XO-523 XO56 = XO-56 XOVC = XOVC-23 XO5M = XOSM-52 XO63 = XOSM-533 XO62 = XOSM-532 XO61 = XOSM-531 XO57 = XOSM-57 XO37 = XOSM-573 XO27 = XOSM-572 XO17 = XOSM-571 XO55 = XOSM-55 XO35 = XOSM-553	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	F = Pin 1 Open E = Disable to Tristate	TAPE AND REEL H = RF7 BULK A = B04 (XO63, XO62, XO61) C = D06 (XO57, XO37, XO27, XO17) D = D07 (XO53, XO54, XO34, XO56, XOVC, XO55, XO35) L = D08 (XO52, XO32, XO5M)	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: XO52CTELNA40M

For technical questions contact: frequency@vishay.com

Disclaimer

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