

Vishay Dale

Surface Mount Oscillator



The XOSM-571 series is an ultra miniature package clock oscillator with dimensions 7.0 mm \times 5.0 mm \times 1.9 mm. It is mainly used in portable PC and telecommunication devices and equipment.

FEATURES

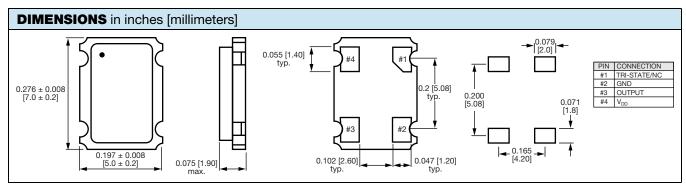
- Size: 7.0 x 5.0 x 1.9 (mm)
- Miniature package
- Tri-state enable/disable
- HCMOS compatible
- Tape and reel
- I_R re-flow
- 1.8 V input voltage
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



STANDARD ELECTRICAL SPECIFICATIONS			
PARAMETER	SYMBOL	CONDITION	VALUE
Frequency range	Fo	-	1.000 MHz to 70.000 MHz
Frequency stability (1)		all conditions	± 25 ppm, ± 50 ppm, ± 100 ppm
Operating temperature range	T _{OPR}	-	0 °C to 70 °C
			- 40 °C to + 85 °C (option)
Storage temperature range	T _{STG}	-	- 55 °C to + 125 °C
Power supply voltage	V _{DD}	-	1.8 V ± 10 %
Aging (first year)		25 °C ± 3 °C	± 5 ppm
Supply current	I _{DD}	1.000 MHz to 70.000 MHz	20 mA max.
Output symmetry	Sym	at ¹ / ₂ V _{DD}	40 %/60 % (45 %/55 % option)
Rise/fall time	+ /+	1.000 MHz to 35.328 MHz	10 ns
	t _r /t _f	35.329 MHz to 70.000 MHz	4 ns
Output voltage	V _{OH}	-	90 % V _{DD} min.
	V _{OL}	-	10 % V _{DD} max.
Output load		-	10 TTL or 30 pF
Start-up time	t _s	-	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 vibration



Note

A 0.01 μF bypass capacitor should be placed between V_{DD} (pin 4) and GND (pin 2) to minimize power supply line noise



www.vishay.com

standard

Vishay Dale

ORDERING INFORMATION R XOSM-571 В Ε 50M e4 MODEL FREQUENCY STABILITY OTR **ENABLE/DISABLE** FREQUENCY/MHz JEDEC LEAD (Pb)-FREE

AA = 0.0025 % (25 ppm)blank = standard $R = -40 \, ^{\circ}C$ to $+85 \, ^{\circ}C$ A = 0.005 % (50 ppm)B = 0.01 % (100 ppm)

E = disable to tri-state

standard

GLOBAL PART NUMBER

X 0 1 7 С Ε С Ν Α 5 0 М ENABLE/ MODEL FREQUENCY PACKAGE **OPTIONS FREQUENCY STABILITY** DISABLE CODE

GLOBAL PART NUMBERING OPTIONS

Χ 0 5 С Т

FREQUENCY

STABILITY

(25 ppm)

OPERATING TEMPERATURE (OTR)

 $T = 0 \,^{\circ}C \text{ to} + 70 \,^{\circ}C$ C = 0.01 %(100 ppm) R = -40 °C to + 85 °C D = 0.005 %(50 ppm) $E = 0.0025^{\circ}$ %

ENABLE/ **DISABLE**

Ε

E = Disable to tristate

PACKAGE CODE

С

Tape and reel H = RF7

Bulk A = B04(XO63, XO62, XO61) C = D06(XO57, XO37, XO27, XO17)

OPTION

Α

NA = Noadditional options 60 = 45/55symmetry

Contact factory for all other options

FREQUENCY

0

М

4M = 4 MHz40M = 40 MHz100M =100 MHz 12M288 = 12 288 MHz

M is used as decimal place holder in frequency

Example: XO57CTECNA40M

MODEL NUMBER

XO63 = XOSM-533

XO62 = XOSM-532

XO61 = XOSM-531

XO57 = XOSM-57

XO37 = XOSM-573

XO27 = XOSM-572

XO17 = XOSM-571

PART MARKING

Line 1: M28_XXXXX (part number) Line 2: XX.XXXXM (frequency) Line 3: yywwvv (date/factory code)



Legal Disclaimer Notice

Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Revision: 13-Jun-16 1 Document Number: 91000