Vishay Dale



# **Surface Mount Oscillator**



The XOSM-532 series is an ultra miniature package clock oscillator with dimensions 5.0 mm x 3.2 mm x 1.3 mm. It is mainly used in portable PC and telecommunication devices and equipment.

### **FEATURES**

• Size: 5.0 x 3.2 x 1.3 (mm)

- Miniature package
- Tri-state enable/disable
- HCMOS compatible
- Tape and reel
- I<sub>R</sub> re-flow
- 2.5 V input voltage
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition

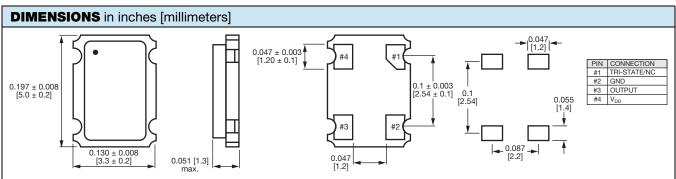


ROHS COMPLIANT HALOGEN FREE

STANDARD ELECTRICAL SPECIFICATIONS							
PARAMETER	SYMBOL	CONDITION	VALUE				
Frequency range	Fo	-	1.544 MHz to 100.000 MHz				
Frequency stability (1)		all conditions	± 25 ppm, ± 50 ppm, ± 100 ppm				
Operating temperature range	т.		0 °C to 70 °C				
	T <sub>OPR</sub>	-	- 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>	-	2.5 V ± 10 %				
Aging (first year)		25 °C ± 3 °C	± 5 ppm				
Supply current		1.544 MHz to 9.999 MHz	7 mA max.				
		10.000 MHz to 34.999 MHz	8 mA max.				
	I <sub>DD</sub>	35.000 MHz to 49.999 MHz	20 mA max.				
		50.000 MHz to 100.000 MHz	30 mA max.				
Output symmetry	Sym	at <sup>1</sup> / <sub>2</sub> V <sub>DD</sub>	40 %/60 % (45 %/55 % option)				
Rise time	t <sub>r</sub>	10 % V <sub>DD</sub> to 90 % V <sub>DD</sub>	6 ns max.				
Fall time	t <sub>f</sub>	90 % $V_{DD}$ to 10 % $V_{DD}$	6 ns max.				
O to to allow	V <sub>OH</sub>	-	90 % V <sub>DD</sub> min.				
Output voltage	V <sub>OL</sub>	-	10 % V <sub>DD</sub> max.				
Output load	HCMOS load	-	30 pF max. (15 pF typ.)				
Start-up time	t <sub>s</sub>	-	10 ms max.				
Din 1 tri state function			pin 1 = H or open (output active at pin 3)				
Pin 1, tri-state function		<del>-</del>	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<sub>DD</sub> (pin 4) and GND (pin 2) to minimize power supply line noise

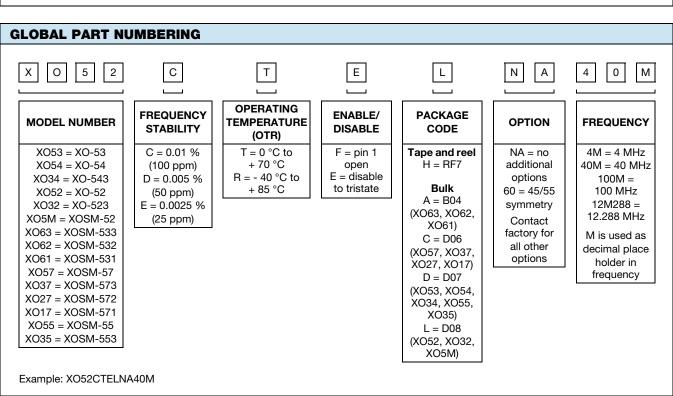
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## Surface Mount Oscillator



ORDERING INFORMATION										
XOSM-532	В	R	E	50 <b>M</b>	e4					
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 0 6 2	C FREQUENCY	T OTR	E ENABLE/	A PACKAGE	N A OPTIONS	5 0 M		
MODEL	STABILITY	Om	DISABLE	CODE	01 110110	THEGOLINOT		



## PART MARKING

Line 1: M2808XXXXX (part number)
Line 2: XX.XXXXM (frequency)
Line 3: yywwv (date/factory code)

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