Vishay Dale







The XOSM-531 series is an ultra miniature package clock oscillator with dimensions  $5.0~\text{mm} \times 3.2~\text{mm} \times 1.3~\text{mm}$ . 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
- 1.8 V input voltage
- Compliant to RoHS directive 2002/95/EC

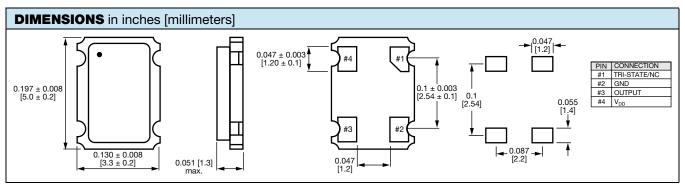


RoHS

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	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>	-	1.8 V ± 10 %				
Aging (first year)		25 °C ± 3 °C	± 5 ppm				
Supply current		1.544 MHz to 9.999 MHz	6 mA max.				
	I <sub>DD</sub>	10.000 MHz to 34.999 MHz	7 mA max.				
		35.000 MHz to 49.999 MHz	15 mA max.				
		50.000 MHz to 100.000 MHz	25 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 % $V_{DD}$ to 90 % $V_{DD}$	5 ns max.				
Fall time	t <sub>f</sub>	90 % V <sub>DD</sub> to 10 % V <sub>DD</sub>	5 ns max.				
Output voltage	V <sub>OH</sub>	-	90 % V <sub>DD</sub> min.				
	V <sub>OL</sub>	-	10 % V <sub>DD</sub> max.				
Output load	HCMOS load	- 30 pF max. (15 pF ty					
Start-up time	t <sub>s</sub>	- 10 ms max.					
Din 1 tri state function			pin 1 = H or open (output active at pir				
Pin 1, tri-state function		<del>-</del>	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 vibration



#### Note

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

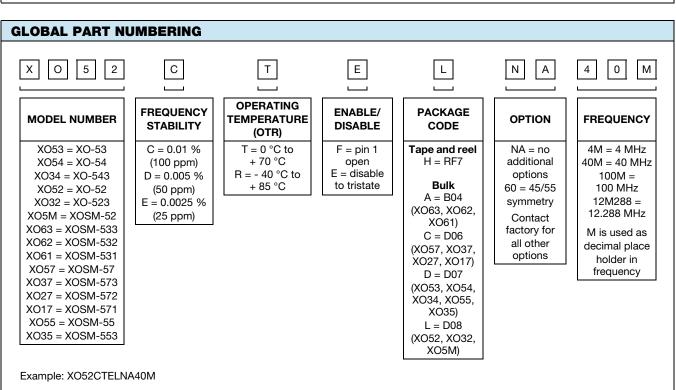
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## Surface Mount Oscillator



ORDERING INFORMATION									
XOSM-531	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)	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 6 1  MODEL	FREQUENCY STABILITY	T OTR	ENABLE/ DISABLE	PACKAGE CODE	N A OPTIONS	5 0 M FREQUENCY		





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