

XOSM-533

Vishay Dale

Surface Mount Oscillator



The XOSM-533 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.

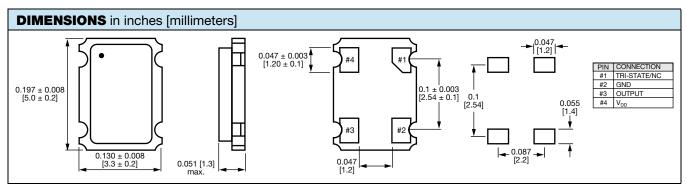
FEATURES

- Size: 5.0 x 3.2 x 1.3 (mm)
- Miniature package
- Tri-state enable/disable
- HCMOS compatible
- Tape and reel
- I_R re-flow
- 3.3 V input voltage
- Compliant to RoHS directive 2002/95/EC

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 _{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}	-	3.3 V ± 10 %
Aging (first year)		25 °C ± 3 °C	± 5 ppm
Supply current		1.544 MHz to 9.999 MHz	8 mA max.
	I _{DD}	10.000 MHz to 34.999 MHz	10 mA max.
		35.000 MHz to 49.999 MHz	25 mA max.
		50.000 MHz to 100.000 MHz	35 mA max.
Output symmetry	Sym	at ¹ / ₂ V _{DD}	40 %/60 % (45 %/55 % option)
Rise time	t _r	10 % V _{DD} to 90 % V _{DD}	7 ns max.
Fall time	t _f	90 % V _{DD} to 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. (15 pF typ.)
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

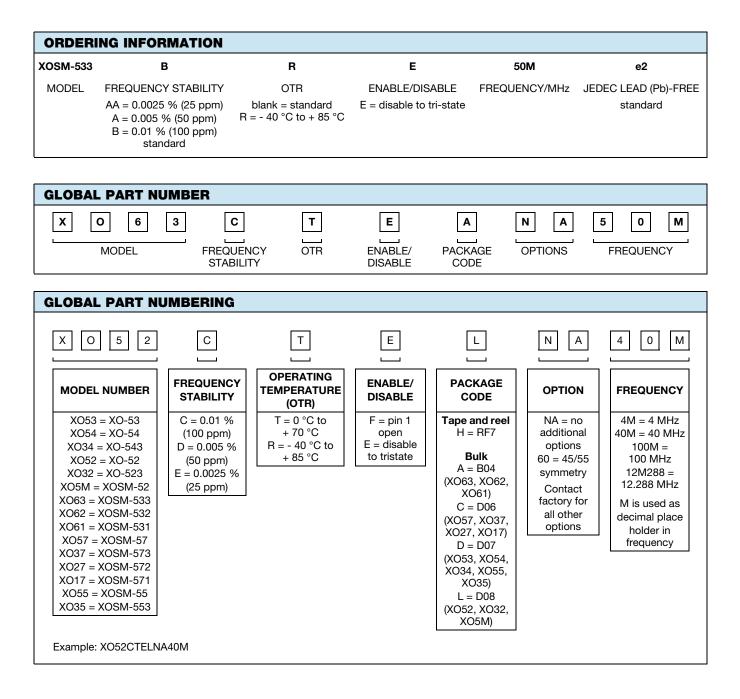


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