

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

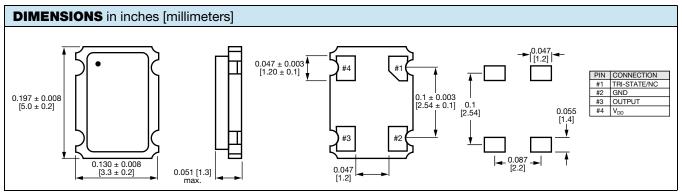
- Size: 5.0 x 3.2 x 1.3 (mm)
- Miniature package
- Tri-state enable / disable
- HCMOS compatible
- Tape and reel
- I_R re-flow
- 2.5 V input voltage
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



STANDARD ELECTRICAL SPECIFICATIONS			
PARAMETER	SYMBOL	CONDITION	VALUE
Frequency range	Fo	-	1.544 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}	-	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.
	I _{DD}	10.000 MHz to 34.999 MHz	8 mA max.
		35.000 MHz to 49.999 MHz	20 mA max.
		50.000 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} to 90 % V_{DD}	6 ns max.
Fall time	t _f	90 % V_{DD} to 10 % V_{DD}	6 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)

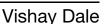
Note

(1) Include: 25 °C tolerance, operating temperature range, input voltage change, aging, load change, shock vibration

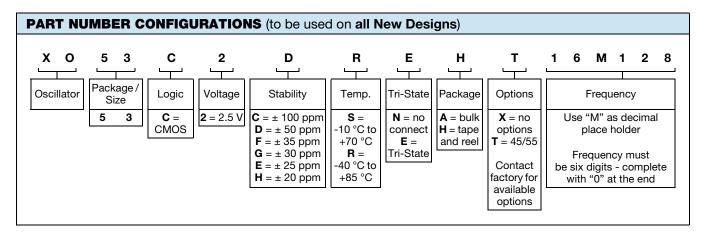


Note

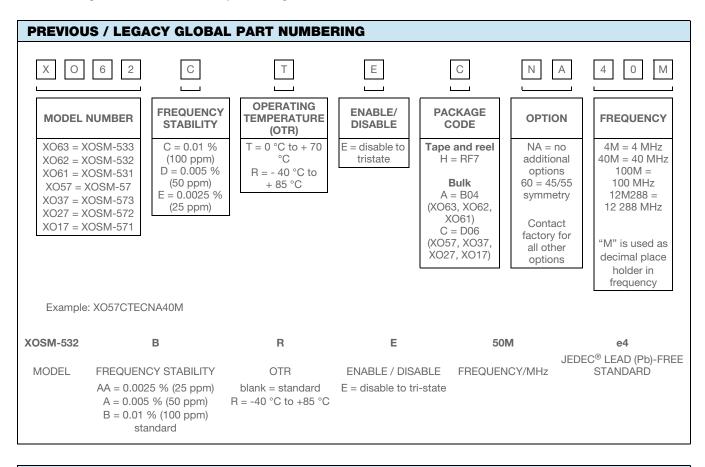
• A 0.01 μF bypass capacitor should be placed between V_{DD} (pin 4) and GND (pin 2) to minimize power supply line noise







Previous / legacy part number information: still valid for existing designs; all New Designs should use the new part configuration above



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



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