



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
- Compliant to RoHS directive 2002/95/EC

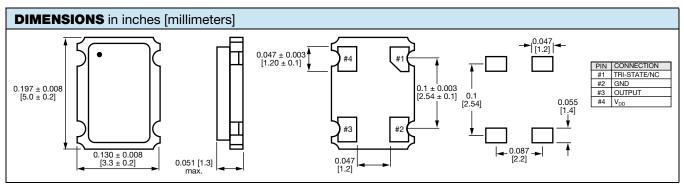


RoHS COMPLIANT

| PARAMETER | SYMBOL | CONDITION | VALUE | | |
|-----------------------------|------------------|------------------------------------------------|-------------------------------------------|--|--|
| Frequency range | F _O | - | 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 | ts | - 10 ms max. | | | |
| Die 4 tei state formation | | | pin 1 = H or open (output active at pin 3 | | |
| Pin 1, tri-state function | | - | 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

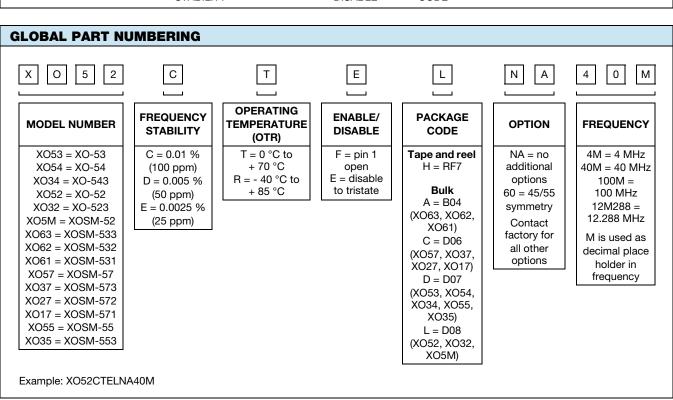
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| ORDERING INFORMATION | | | | | | | | | | |
|----------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------|---------------|----------------------------------|--|--|--|--|--|
| XOSM-532 | В | R | E | 50 M | 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 O 6 2 MODEL | FREQUENCY STABILITY | T OTR | E ENABLE/ DISABLE | A PACKAGE CODE | N A OPTIONS | 5 0 M FREQUENCY | | |





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