## Half Size Clock Oscillator Enable/Disable



The XOSM-52 series oscillator is half size, has Tri-state enable/disable controlled function. The metal package with pin#4 case ground acts as shielding to minimize EMI radiation.

### FEATURES

- Tri-state enable/disable
- 8 pin half size
- Industry standard
- Wide frequency range
- Low cost
- Resistance weld package
- 5 V
- Lead (Pb)-free and RoHS compliant

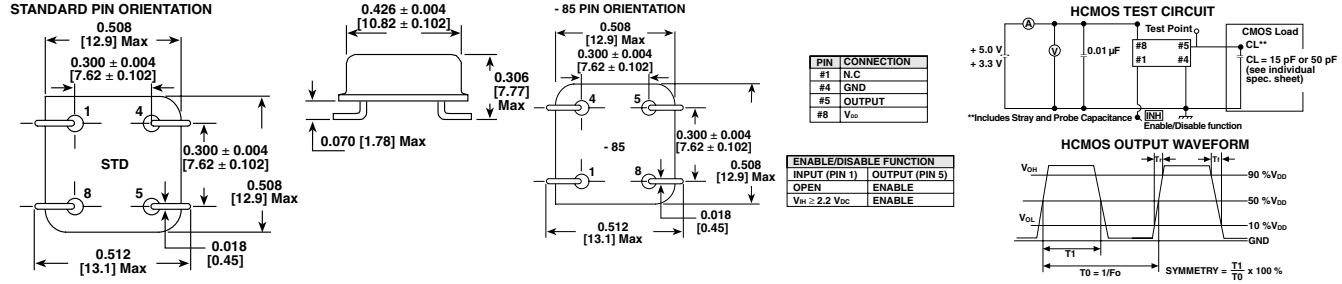
RoHS COMPLIANT

### STANDARD ELECTRICAL SPECIFICATIONS

| PARAMETER | SYMBOL | CONDITION | XOSM-52 |
|---|---|---|---|
| Frequency Range | $F_O$ | | 1 MHz ~ 100.00 MHz |
| Frequency Stability* | | All Condition* | ± 25 ppm, ± 50 ppm, ± 100 ppm |
| Operating Temperature Range | $T_{OPR}$ | | 0 °C ~ 70 °C (- 40 °C ~ + 85 °C option) |
| Storage Temperature Range | $T_{STG}$ | | - 55 °C ~ + 125 °C |
| Power Supply Voltage | $V_{DD}$ | | 5.0 V ± 10 % |
| Aging (First Year) | | 25 °C ± 3 °C | ± 5 ppm |
| Supply Current | $I_{DD}$ | 1 MHz to 23.999 MHz | 20 mA Max |
| | | 24.000 MHz to 49.999 MHz | 30 mA Max |
| | | 50.000 MHz to 69.999 MHz | 40 mA Max |
| | | 70.000 MHz to 100.000 MHz | 60 mA Max |
| Output Symmetry | Sym | At 1/2 $V_{DD}$ | 40/60 % (45/55 % Option) |
| Rise Time | $T_r$ | 20 % $V_{DD}$ ~ 80 % $V_{DD}$ | 10 ns Max |
| Fall Time | $T_f$ | 80 % $V_{DD}$ ~ 20 % $V_{DD}$ | 10 ns Max |
| Output Voltage | $V_{OH}$ | | 90 % $V_{DD}$ Min |
| | $V_{OL}$ | | 10 % $V_{DD}$ Max |
| Output Load | TTL Load | | 1 ~ 10 TTL |
| | HCMOS Load | | ~ 50 M : 50 pF |
| | | | ~ 70 M : 30 pF |
| | | | ~ 100 M : 15 pF |
| Start-up Time | | Ts | 10 ms Max |
| Pin 1, tri-state function | | | Pin 1 = H or open... Output active at pin 5 |

* Include: 25 °C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration.

### DIMENSIONS in inches [millimeters]




### ORDERING INFORMATION

| XOSM-52 | B | R | E | 40 M | e2 |
|---|---|---|---|---|---|
| MODEL | FREQUENCY STABILITY<br>AA = 0.0025 % (25 ppm)<br>A = 0.005 % (50 ppm)<br>B = 0.01 % (100 ppm)<br>Standard | OTR<br>Blank = 0 °C to 70 °C<br>R = - 40 °C to + 85 °C | ENABLE/DISABLE<br>Blank = Pin 1 open<br>E = Disable to Tristate | FREQUENCY/MHz | JEDEC LEAD (Pb)-FREE STANDARD |

### GLOBAL PART NUMBER

| X | O | 5 | M | C | T | E | L | N | A | 4 | 0 | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODEL | | | | FREQUENCY STABILITY | OTR | ENABLE/ DISABLE | PACKAGE CODE | OPTIONS | | FREQUENCY | | |

## GLOBAL PART NUMBERING

| X O 5 2 | C | T | E | L | N A | 4 0 M |
|---|---|---|---|---|---|---|
| **MODEL NUMBER** | **FREQUENCY STABILITY** | **OPERATING TEMPERATURE (OTR)** | **ENABLE/ DISABLE** | **PACKAGE CODE** | **OPTIONS** | **FREQUENCY** |
| XO53 = XO-53<br>XO54 = XO-54<br>XO34 = XO-543<br>XO52 = XO-52<br>XO32 = XO-523<br>XO56 = XO-56<br>XOVC = XOVC-23<br>XO5M = XOSM-52<br>XO63 = XOSM-533<br>XO62 = XOSM-532<br>XO61 = XOSM-531<br>XO57 = XOSM-57<br>XO37 = XOSM-573<br>XO27 = XOSM-572<br>XO17 = XOSM-571<br>XO55 = XOSM-55<br>XO35 = XOSM-553 | C = 0.01 %<br>(100 ppm)<br>D = 0.005 %<br>(50 ppm)<br>E = 0.0025 %<br>(25 ppm) | T = 0 °C to + 70 °C<br>R = - 40 °C to + 85 °C | F = Pin 1 Open<br>E = Disable to Tristate | TAPE AND REEL<br>H = RF7<br><br>BULK<br>A = B04<br>(XO63, XO62, XO61)<br>C = D06<br>(XO57, XO37, XO27, XO17)<br>D = D07<br>(XO53, XO54, XO34, XO56, XOVC, XO55, XO35)<br>L = D08<br>(XO52, XO32, XO5M) | NA = No Additional Options<br>60 = 45/55 Symmetry<br><br>Contact factory for all other options | 4M = 4 MHz<br>40M = 40 MHz<br>100M = 100 MHz<br>12M288 = 12.288 MHz<br><br>M is used as decimal place holder in frequency |

Example: XO52CTELNA40M

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