Surface Mount Oscillators



The XOSM-531 series is an ultra miniature package clock oscillator with dimensions 5.0 x 3.2 x 1.3 mm. It is mainly used in portable PC and telecommunication devices and equipment.

FEATURES

- 5 x 3.2 x 1.3 Miniature Package
- Tri-state enable/disable
- HCMOS compatible
- Tape and Reel
- IR Re-flow
- 1.8 V input voltage
- 100 % Lead (Pb)-free and RoHS compliant

Pb-free

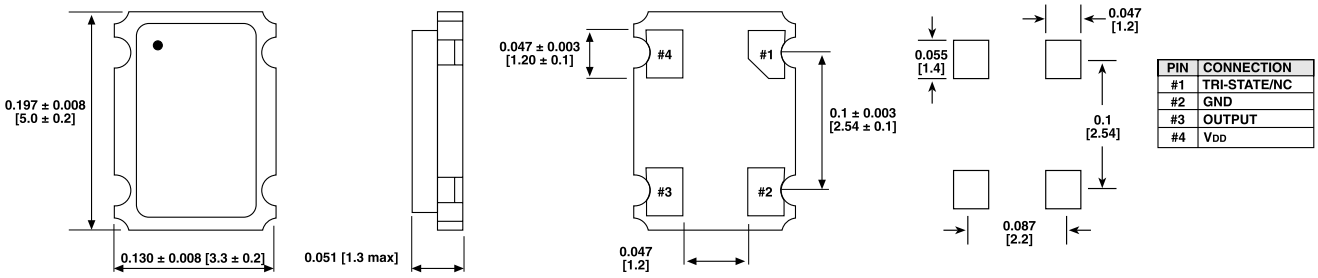
RoHS COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER		SYMBOL	CONDITION	XOSM-531
Frequency Range		F_O		1.544 MHz ~ 100.000 MHz
Frequency Stability*			All Condition*	± 25 ppm, ± 50 ppm, ± 100 ppm
Operating Temperature		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}		1.8 V ± 10 %
Aging (First Year)			25 °C ± 3 °C	± 5 ppm
Supply Current		I_{DD}	1.544 MHz to 9.999 MHz	6 mA Max
			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 1/2 V_{DD}	40/60 % (45/55 % Option)
Rise Time		T_r	10 % V_{DD} ~ 90 % V_{DD}	5 ns Max
Fall Time		T_f	90 % V_{DD} ~ 10 % V_{DD}	5 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
Pin 1, tri-state function				Pin 1 = H or open.... output active at pin 3 Pin 1 = L..... high impedance at pin 3

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

DIMENSIONS in inches [millimeters]



PIN	CONNECTION
#1	TRI-STATE/NC
#2	GND
#3	OUTPUT
#4	V_{DD}

***note: A 0.01 µF bypass capacitor should be placed between VDD (Pin4) and GND (Pin2) to minimize power supply line noise

ORDERING INFORMATION

XOSM-531	B	R	E	50 M	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 Tristate	FREQUENCY/MHz	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

X	O	6	1	C	T	E	A	N	A	5	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 XO54 = XO-54 XO34 = XO-543 XO52 = XO-52 XO32 = XO-523 XO56 = XO-56 XOVC = XOVC-23 XO5M = XOSM-52 XO63 = XOSM-533 XO62 = XOSM-532 XO61 = XOSM-531 XO57 = XOSM-57 XO37 = XOSM-573 XO27 = XOSM-572 XO17 = XOSM-571 XO55 = XOSM-55 XO35 = XOSM-553	C = 0.01 % (100 ppm) D = 0.005 % (50 ppm) E = 0.0025 % (25 ppm)	T = 0 °C to + 70 °C R = - 40 °C to + 85 °C	F = Pin 1 Open E = Disable to Tristate	TAPE AND REEL H = RF7 BULK A = B04 (XO63, XO62, XO61) C = D06 (XO57, XO37, XO27, XO17) D = D07 (XO53, XO54, XO34, XO56, XOVC, XO55, XO35) L = D08 (XO52, XO32, XO5M)	NA = No Additional Options 60 = 45/55 Symmetry Contact factory for all other options	4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency

Example: XO52CTELNA40M

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All product specifications and data are subject to change without notice.

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