Full Size Voltage Controlled Crystal Oscillators

The XOVC-23 is a full size voltage controlled crystal oscillator designed primarily for use in phase locked loops, phase shift keying and other telecommunication applications such as ADSL and cable modem.

FEATURES

- Size: 14 pin half size
- Industry standard
- Wide frequency range
- Low cost
- Resistance weld package
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition

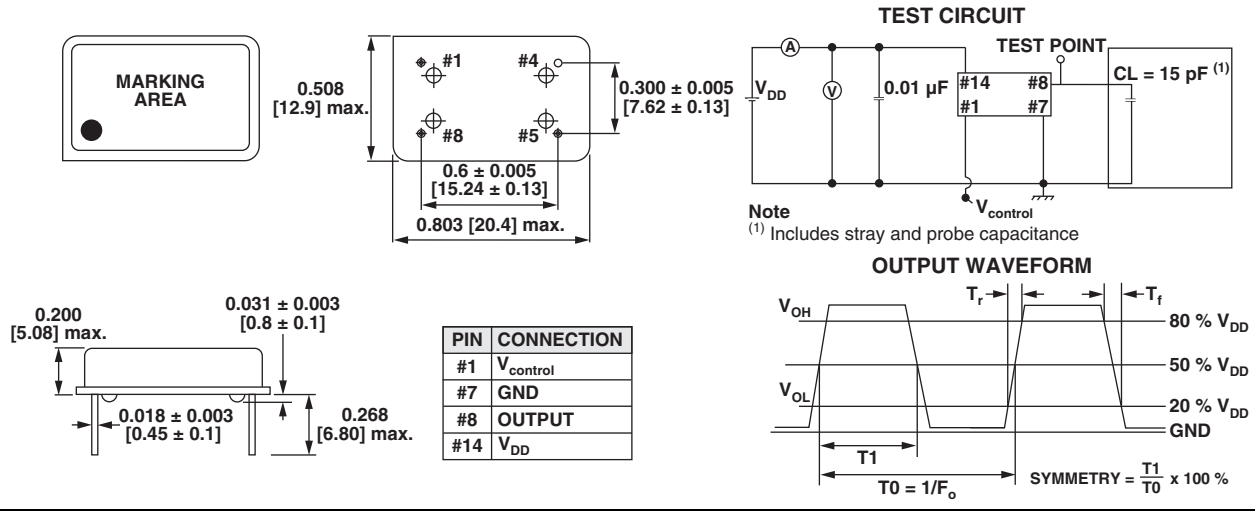
RoHS COMPLIANT
HALOGEN FREE

STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	VALUE
Frequency range (1)	F_O	-	1 MHz to 40.000 MHz
Frequency calibration		at 25 °C	± 15 ppm
Temperature stability		over T_{OPR}	± 15 ppm, ± 25 ppm, ± 50 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}	-	5.0 V ± 5 %
Aging (first year)		25 °C ± 3 °C	± 5 ppm
Supply current	I_{DD}	1.000 MHz to 23.999 MHz	15 mA max.
		24.000 MHz to 40.000 MHz	25 mA max.
Output symmetry	Sym	at $^1/_2$ V_{DD}	40 %/60 % (45 %/55 % option)
Rise time	t_r	20 % V_{DD} to 80 % V_{DD}	10 ns max.
Fall time	t_f	80 % V_{DD} to 20 % V_{DD}	10 ns max.
Output voltage	V_{OH}	-	90 % V_{DD} min.
	V_{OL}	-	10 % V_{DD} max.
Output load		-	15 pF max.
Start-up time	t_s	-	10 ms max.
Stability vs. power change		V_{DD} ± 5 %	± 5 ppm
Stability vs. load change		15 pF ± 10 %	± 3 ppm
Pullability		over control voltage range	± 50 ppm, ± 100 ppm, ± 200 ppm
Control voltage range		-	0.5 V to 4.5 V

Note
(1) Frequency over 40.000 MHz, please consult factory

DIMENSIONS in inches [millimeters]



ORDERING INFORMATION

XOVC-23	B	-1	27M	e2
MODEL	FREQUENCY STABILITY	PULLABILITY	FREQUENCY/MHz	JEDEC LEAD (Pb)-FREE
	AA = 0.0025 % (25 ppm) A = 0.005 % (50 ppm) B = 0.01 % (100 ppm)	-1 = ± 100 ppm -2 = ± 200 ppm -3 = ± 50 ppm		standard

Note

- Contact factory for other models, frequencies, stabilities and temperature ranges

GLOBAL PART NUMBER

X	O	V	C	1	C	D	N	A	2	7	M
MODEL				PULLABILITY	FREQUENCY STABILITY	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**	**OPTION**	**FREQUENCY**
XO53 = XO-53 XO54 = XO-54 XO34 = XO-543 XO52 = XO-52 XO32 = XO-523 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, 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

PART MARKING

Line 1: M28__XXXXX (part number)

Line 2: XX.XXXXM (frequency)

Line 3: yywwvv (date/factory code)

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