

Full Size Clock Oscillators TTL/HCMOS Compatible



The XO-54 series oscillator is Full Size Tri-state Enable/Disable control. The metal package with pin #7 case ground acts as shielding to minimize EMI radiation.

FEATURES

- 14 pin full size
- Industry standard
- Wide frequency range
- Low cost
- Tri-State enable/disable
- Resistance weld package
- 5 V
- Lead (Pb)-free terminations and RoHS compliant

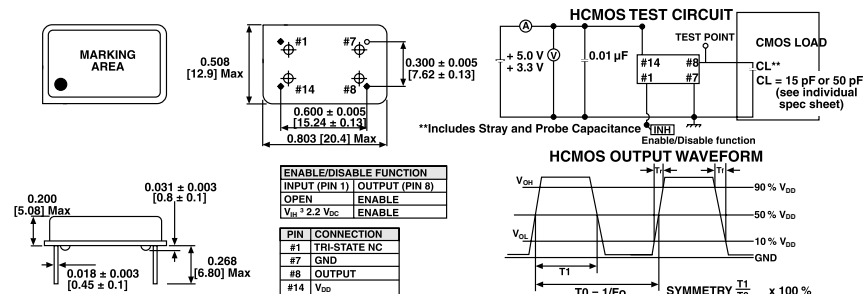


STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	XO-54
Frequency Range	F_O		1 MHz ~ 100.00 MHz
Frequency Stability*		All Condition*	± 25 ppm, ± 50 ppm, ± 100 ppm
Operating Temperature Range	T_{OPR}		$0^\circ\text{C} \sim 70^\circ\text{C}$ ($-40^\circ\text{C} \sim +85^\circ\text{C}$ option)
Storage Temperature Range	T_{STG}		$-55^\circ\text{C} \sim +125^\circ\text{C}$
Power Supply Voltage	V_{DD}		$5.0\text{ V} \pm 10\%$
Aging (First Year)		$25^\circ\text{C} \pm 3^\circ\text{C}$	± 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	$1/2 V_{DD}$	40/60 % (45/55 % Option)
Rise Time	T_r	$10\% V_{DD} \sim 90\% V_{DD}$	10 ns Max
Fall Time	T_f	$90\% V_{DD} \sim 10\% V_{DD}$	10 ns Max
Output Voltage	V_{OH}		$90\% V_{DD}$ Min
	V_{OL}		$10\% V_{DD}$ Max
Output Load	TTL Load		$1 \sim 10$ TTL
			$\sim 50\text{ M} : 50\text{ pF}$
	HCMOS Load		$\sim 70\text{ M} : 30\text{ pF}$
			$\sim 100\text{ M} : 15\text{ pF}$
Start-up Time		T_s	10 ms Max
Pin 1, Tri-State Function			Pin 1 = H or open.... Output active at pin 8 Pin 1 = L.... High Impedance at pin 8

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

DIMENSIONS in millimeters



ORDERING INFORMATION

XO-54
MODEL

B
FREQUENCY STABILITY
AA = 0.0025 % (25 ppm)
A = 0.005 % (50 ppm)
B = 0.01 % (100 ppm)
Standard

R
OTR
Blank = 0°C to $+70^\circ\text{C}$
R = -40°C to $+85^\circ\text{C}$

E
ENABLE/DISABLE
Blank = Pin 1 open
E = Disable or Tristate

40 M
FREQUENCY/MHz

e2
JEDEC
LEAD (Pb)-FREE
STANDARD

GLOBAL PART NUMBER

X O 5 4
MODEL

C
FREQUENCY
STABILITY

T
OTR

E
ENABLE/
DISABLE

D
PACKAGE
CODE

N A
OPTIONS

4 0 M
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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