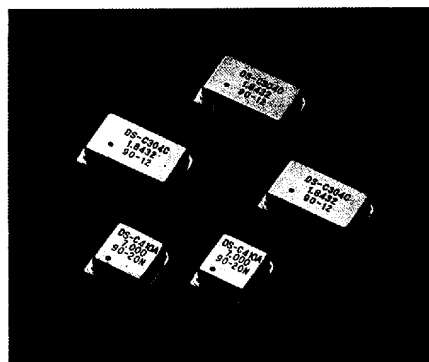


ATXO SERIES

AT OSCILLATORS

300 kHz

90 MHz



The ATXO series clock oscillators are designed using Seiko's high quality machining and precision production technology. The C304 series oscillators feature hermetically sealed metal cases; noticeably low power consumption; and tight frequency stability; $\pm 0.01\%$ to $\pm 0.005\%$ from -10°C to $+70^{\circ}\text{C}$, for the most demanding applications. AT oscillators are compact, rugged, reliable, and TTL or CMOS compatible. Best of all, the ATXO series combines all the features of a quality electronic component with the leading name in quartz crystal technology, Seiko Instruments.

FEATURES

- All metal hermetic package.
- Standard 14-pin DIP compatible or half-size package.
- High quality and reliability.
- TTL or CMOS compatible output.

APPLICATIONS

Computers, computer peripherals, communications and telecommunications equipment, microprocessors, test equipment, and medical instrumentation.

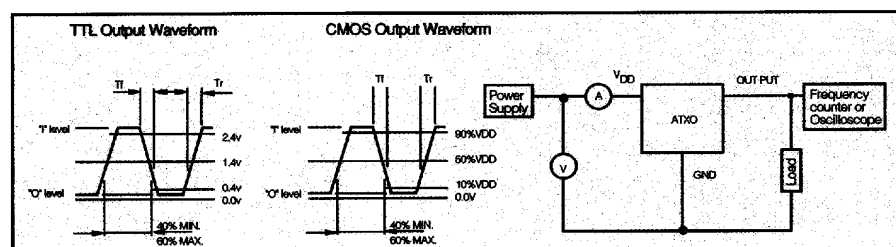
NOTES

Custom frequencies and specifications are available upon request.

OPTIONS

- Dual frequency oscillator designs available.
- Enable/Disable.

TEST CIRCUIT

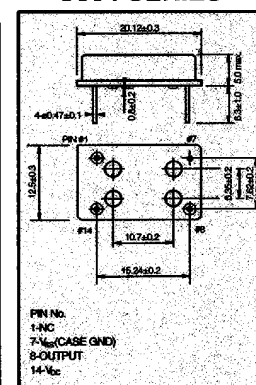


SPECIFICATIONS

Item	C304A	C304B	C304C	C410A	C410B	C410C
Material	Metal			Metal		
Oscillation frequency	300 kHz-90 MHz			300 kHz-90 MHz		
Frequency stability	±100 ppm	±50 ppm		±100 ppm	±50 ppm	
Operating temperature range	0° C - +70° C			0° C - +70° C		
Storage temperature range	-55° C - +125° C			-55° C - +125° C		
Aging (first year)	$\Delta f/f_0 \pm 10$ ppm max.			$\Delta f/f_0 \pm 10$ ppm max.		
Power supply voltage (VDD)	DC +5.0V ±0.5V			DC +5.0V ±0.5V		
Current consumption (25° C)	30 mA max. (300 kHz-30 MHz) 40 mA max. (30 MHz-70 MHz) 50 mA max. (70 MHz-90 MHz)			30 mA max. (300 kHz-30 MHz) 40 mA max. (30 MHz-70 MHz) 50 mA max. (70 MHz-90 MHz)		
Output level V_{OH} (logic "1") V_{OL} (logic "0")	$\frac{+2.4V \text{ min. (300 kHz-90 MHz)}}{+0.4V \text{ max. (300 kHz-90 MHz)}}$		$\frac{(V_{DD} - 0.5V) \text{ min.}}{+0.5V \text{ max.}}$	$\frac{(V_{DD} - 0.5V) \text{ min.}}{+0.5V \text{ max.}}$		
Rise and fall time	5 ns max. (300 kHz ~ 90 MHz)		10 ns max. (300 kHz-90 MHz) ($C_L = 15$ pF)	10 ns max. (300 kHz-90 MHz) ($C_L = 15$ pF)		
Symmetry	60/40% (DC 1.4V)		60/40% ($V_{DD}/2$)	60/40% (DC 1.4V)		60/40% ($V_{DD}/2$)
Fan-out	10TTL		CMOS	10TTL		1 TTL or CMOS

DIMENSIONS (Unit: mm)

C304 SERIES



C410 SERIES

