

STA



STC



STD



DIP TYPE

# TCXO & VCTCXO

## STA, STC, STD

- Temperature Compensated Crystal Oscillator
- HCMOS / TTL output
- Clipped Sinewave Output
- 3.3V / 5.0V supply voltage

### ELECTRICAL SPECIFICATIONS

	TTL / HCMOS	CLIPPED SINEWAVE
Frequency Range	1.200 to 40.000MHz	9.600 to 40.000MHz
Load Drive Capability	10 TTL Load or 15pF HCMOS Load(STD)	10kOhms//10pF
Output Voltage Logic High( $V_{OH}$ )	w/TTL : 2.4V <sub>DC</sub> min. w/HCMOS : 90% of $V_{DD}$ min.	0.8Vp-p min. ( $V_{DD}$ : 3.3V <sub>DC</sub> )
Output Voltage Logic Low( $V_{OL}$ )	w/TTL : 0.4V <sub>DC</sub> max. w/HCMOS : 10% of $V_{DD}$ max.	1.0Vp-p min. ( $V_{DD}$ : 5.0V <sub>DC</sub> )
Frequency / Stability	vs. Operating Temperature Range vs. Input Voltage ( $\pm 5\%$ ) vs. Load ( $\pm 10\%$ )	See Table 2 $\pm 0.3$ ppm max. $\pm 0.3$ ppm max.
Supply Voltage( $V_{DD}$ )	3.3V <sub>DC</sub> $\pm 5\%$ , 5.0V <sub>DC</sub> $\pm 5\%$	3.3V <sub>DC</sub> $\pm 5\%$ , 5.0V <sub>DC</sub> $\pm 5\%$
Input Current	1.200 to 27.000MHz 20mA max. 25mA max. 27.001 to 40.000MHz 35mA max. 40mA max.	9.600 to 27.000MHz 2mA max. 3mA max. 27.001 to 40.000MHz 3mA max. 4mA max.
Rise / Fall Time	4ns max. 5ns max.	
Duty Cycle	50 $\pm 10\%$	
Internal Trim (Top of Can)		$\pm 3$ ppm min.
Control Voltage(External)	1.65V <sub>DC</sub> $\pm 1.65$ V <sub>DC</sub> ( $V_{DD}$ : 3.3V <sub>DC</sub> ), 2.5V <sub>DC</sub> $\pm 2.0$ V <sub>DC</sub> ( $V_{DD}$ : 5.0V <sub>DC</sub> ) Positive transfer Characteristic	
Frequency Deviation		$\pm 5$ ppm or $\pm 10$ ppm minimum Over Control Voltage
Aging (at 25°C)		$\pm 1$ ppm/year max.

### MECHANICAL DIMENSIONS

