## HCMOS/ACMOS/TTL COMPATIBLE SMD CLOCK OSCILLATORS - XO75 Series

## FEATURES

- RoHS Compliant (Pb-Free), Industry Standard Pin-out Spacing
- Very Low Phase Jitter with Fundamental or 3rd Overtone Crystal Design
- Tri-state Enable/Disable Standard; 5V, 3.3V, 2.5V or 1.8V Option
- Leadless Chip Carrier (LCC) Ultra Small Package ( $7 \times 5 \times 1.6 \mathrm{~mm}$ )


## SPECIFICATIONS

| Frequency Range | 1.000 MHz to $106.25 \mathrm{MHz}(5 \mathrm{~V})$, to 200 MHz (3.3V) |
| :---: | :---: |
| Input Voltage (Vcc) | $\mathrm{A}=+5 \mathrm{VDC} \pm 10 \% ; \mathrm{B}=+3.3 \mathrm{VDC} \pm 10 \% ; \mathrm{C}=2.5 \mathrm{VDC} \pm 10 \% ; \mathrm{D}=1.8 \mathrm{VDC} \pm 10 \%$ |
| Input Current | 60 mA Maximum, depending on frequency and output load |
| Storage Temperature | $-55^{\circ} \mathrm{C}$ to $125^{\circ} \mathrm{C}$ |
| Overall Frequency Stability | $100= \pm 100 \mathrm{ppm} ; 50= \pm 50 \mathrm{ppm} ; 25= \pm 25 \mathrm{ppm}$ |
| Temperature Range | $\mathrm{A}=0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C} ; \mathrm{B}=-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C} ; \mathrm{D}=-20^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C} ; \mathrm{G}=-10^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ |
| Standard Stability | $100 \mathrm{~A}= \pm 100 \mathrm{ppm} / 0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ |
| Electric Option (Symmetry) | $1=$ Tristate $60 / 40 \% ; 3=$ Tristate $55 / 45 \% ; 5=$ Tristate $52.5 / 47.5 \%$ $0=$ No tristate $60 / 40 \% ; 2$ = No tristate $55 / 45 \% ; 4=$ No tristate $52.5 / 47.5 \%$ |
| Output Load | HCMOS: Drive up to 50 pF load; TTL: Drive up to 10 TTL gates |
| Logic "1" / Logic "0" Level | 0.9 Vcc Minimum / 0.1Vcc Maximum |
| Rise/Fall Time (Tr/Tf) | 10 ns Maximum, depending on frequency and output load |
| Start-up time | 10 ms Maximum |
| Phase Jitter (RMS, 1 Sigma) | $1 \mathrm{ps} \mathrm{Maximum} \mathrm{for} \mathrm{fj} \mathrm{>} \mathrm{1kHz;} 0.3$ ps Typical for fj $=12 \mathrm{KHz}$ to 20 MHz |
| Tristate Function | Input (Pin 1) High (> 0.7 Vcc , or 2.2 V if $\mathrm{Vcc}=5 \mathrm{~V}$ ) or open: Output (Pin 3) active |
| Output Disabled Time | 100 ns Maximum |
| Output Enable Time | 100 ns Maximum |

Creating a Part Number

| Product Series |
| :--- | :--- | :--- |
| Frequency |
| Supply Voltage: $\mathrm{A}=5.0 \mathrm{~V}$ |

$\mathrm{~B}=3.3 \mathrm{~V}$
$\mathrm{C}=2.5 \mathrm{~V}$


