



## HCMOS/TTL COMPATIBLE SMD CLOCK OSCILLATORS - XO22 Series

### FEATURES

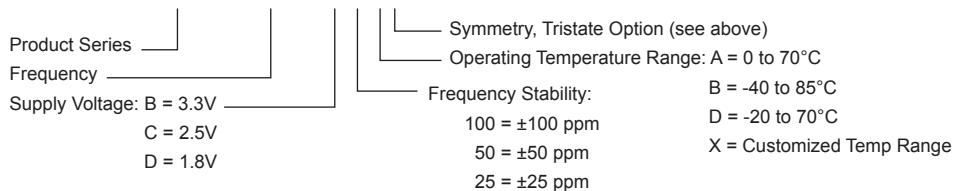
- RoHS Compliant (Pb-Free), Industry Standard Pin-out Spacing
- Very Low Phase Jitter with Fundamental or 3rd Overtone Crystal Design
- Tri-state Enable/Disable Standard; 3.3V, 2.5V, 1.8V Option
- Leadless Chip Carrier (LCC) Ultra Small Package (2.5 x 2.0 x 1.0 mm)

### SPECIFICATIONS

<b>Frequency Range</b>	500 KHz to 133.00 MHz
<b>Input Voltage (Vcc)</b>	B = +3.3 VDC $\pm$ 5%; C = +2.5 VDC $\pm$ 5%; D = +1.8 VDC $\pm$ 5%
<b>Input Current</b>	24 mA Maximum for 3.3V
<b>Storage Temperature</b>	-55°C to 100°C
<b>Overall Frequency Stability</b>	100 = $\pm$ 100 ppm; 50 = $\pm$ 50 ppm; 25 = $\pm$ 25 ppm
<b>Temperature Range</b>	A = 0°C to 70°C; B = -40°C to 85°C; D = -20°C to 70°C
<b>Standard Stability</b>	100A = $\pm$ 100 ppm / 0°C to 70°C
<b>Electric Option (Symmetry)</b>	1 = Tristate 60/40%; 3 = Tristate 55/45%
<b>Output Load</b>	HCMOS: 15 pF load
<b>Logic "1" / Logic "0" Level</b>	0.9Vcc Minimum / 0.1Vcc Maximum
<b>Rise/Fall Time (Tr/Tf)</b>	10 ns Maximum, depending on frequency and output load
<b>Start-up time</b>	10 ms Maximum
<b>Phase Jitter (RMS, 1 Sigma)</b>	1 ps Max for $f_j > 1$ kHz; 0.3 ps Typical for $f_j = 12$ KHz to 20 MHz
<b>Tristate Function</b>	Input (Pin 1) High ( $> 0.7V_{cc}$ , or 2.2V if $V_{cc}=5V$ ) or open: Output (Pin 3) active Input (Pin 1) Low ( $< 0.3V_{cc}$ , or 0.8V if $V_{cc}=5V$ ): Output disabled in high impedance
<b>Output Disabled Time</b>	150 ns Maximum
<b>Output Enable Time</b>	10 ms Maximum (Stand-by current 10 $\mu$ A Max)

### Creating a Part Number

**XO22-25M000-B50A3**



### OUTLINE DRAWING

