

**HCMOS/TTL COMPATIBLE TRI-STATE VCXO IN CERAMIC LCC PACKAGE - VC53 Series**

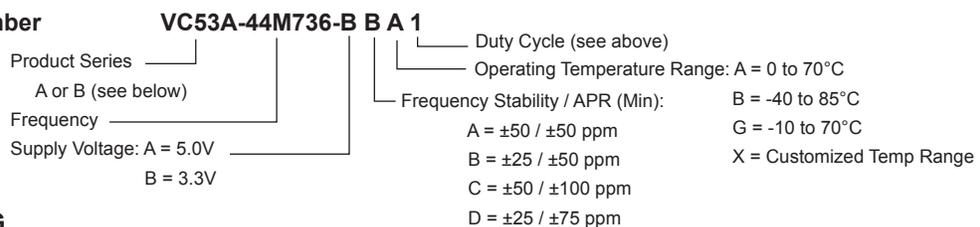
**FEATURES**

- RoHS Compliant (Pb-Free), Wide Frequency Pulling Range
- Very Low Phase Jitter with Fundamental Crystal Design
- Leadless Chip Carrier (LCC) Ultra Small Package with Industry de facto Standard Footprint
- Optional Enable/Disable Control at Either Pin #2 (VC53A) or Pin #5 (VC53B)

**SPECIFICATIONS**

|   |   |
|---|---|
| <b>Frequency Range</b>                  | 1 MHz to 108 MHz  |
| <b>Input Voltage (Vcc)</b>              | A = +5 VDC $\pm$ 5%; B = +3.3 VDC $\pm$ 5%  |
| <b>Input Current</b>                    | 15 mA Max for 3.3V and 20 mA Max for 5V   |
| <b>Control Voltage (Vc)</b>             | +2.5V $\pm$ 2.0V for 5.0V part; +1.65V $\pm$ 1.5V for 3.3V part   |
| <b>Storage Temperature</b>              | -55°C to 125°C  |
| <b>Frequency Stability / APR (Min)</b>  | A = $\pm$ 50 / $\pm$ 50 ppm; B = $\pm$ 25 / $\pm$ 50 ppm; C = $\pm$ 50 / $\pm$ 100 ppm; D = $\pm$ 25 / $\pm$ 75 ppm                   |
| <b>Temperature Range</b>                | A = 0°C to 70°C; B = -40°C to 85°C; G = -10°C to 70°C   |
| <b>Standard Stability / Pullability</b> | BA = $\pm$ 25 ppm / 0°C to 70°C, Absolute pull range (APR): $\pm$ 50 ppm Minimum  |
| <b>Duty Cycle</b>                       | 1 = Tristate 60/40% symmetry; 3 = Tristate 55/45% symmetry  |
| <b>Output Load</b>                      | HCMOS: drive up to 15 pF load; TTL: drive up to 10 TTL gates  |
| <b>Logic "1" / Logic "0" Level</b>      | 0.9Vcc Minimum / 0.1Vcc Maximum   |
| <b>Rise/Fall Time (Tr/Tf)</b>           | 8 ns Maximum at 20% to 80% Vp-p   |
| <b>Start-up time</b>                    | 10 ms Maximum   |
| <b>Phase Jitter (RMS, 1 Sigma)</b>      | 1 ps Maximum for fj > 1kHz; 0.4 ps Typical for fj = 12KHz to 20MHz  |
| <b>Modulation Bandwidth</b>             | 12 kHz Minimum at -3 dB   |
| <b>Linearity / Slope</b>                | $\pm$ 10% Maximum of best straight line fit / Positive  |
| <b>Input Impedance</b>                  | 10 kOhms Minimum  |
| <b>Setability at Fnom, 25°C</b>         | +2.5V $\pm$ 0.5V for 5.0V part; +1.65V $\pm$ 0.4V for 3.3V part   |
| <b>Tristate Function</b>                | Input (Pin 2 or 5) High (> 2.2V) or open: Output (Pin 4) active<br>Input (Pin 2 or 5) Low (< 0.5V): Output disabled in high impedance |
| <b>Enable/Disable Time</b>              | 100 ns Maximum  |

**Creating a Part Number**



**OUTLINE DRAWING**

