



**HCMOS/TTL COMPATIBLE TRI-STATE VCXO IN FR4/PCB SMD PACKAGE - VCFR Series**

**FEATURES**

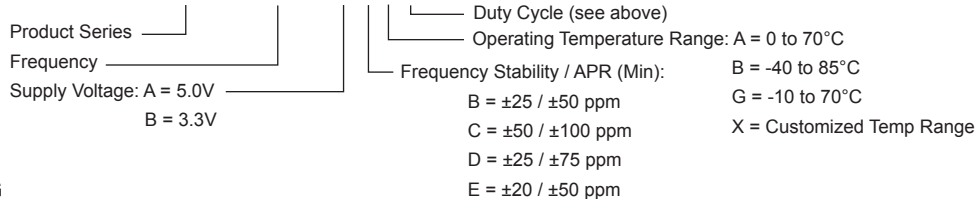
- RoHS Compliant (Pb-Free), Low Phase Jitter, EMI Shielded, Tri-state Output Standard
- Commercial or Industrial Temperature Range, Wide Pull Range Available
- Low Profile 9x14 mm SMD Package with Industry Standard Footprint

**SPECIFICATIONS**

|   |   |
|---|---|
| <b>Frequency Range</b>                  | 1 MHz to 160 MHz  |
| <b>Input Voltage (Vcc)</b>              | A = +5 VDC ± 5%; B = +3.3 VDC ± 5%  |
| <b>Input Current</b>                    | 20 mA Max @ 1 MHz - 20 MHz; 40 mA Max @ 20.001 MHz - 40 MHz<br>60 mA Max @ 40.001 MHz - 100 MHz; 100 mA Max @ 100.001 MHz - 200 MHz |
| <b>Control Voltage (Vc)</b>             | +2.5V ± 2.0V for 5.0V part; +1.65V ± 1.35V for 3.3V part  |
| <b>Storage Temperature</b>              | -55°C to 125°C  |
| <b>Frequency Stability / APR (Min)</b>  | B = ±25 / ±50 ppm; C = ±50 / ±100 ppm; D = ±25 / ±75 ppm; E = ±20 / ±50 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 = ±25 ppm / 0°C to 70°C, Absolute pull range (APR): ±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>           | 5 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; 0.3 ps Typical for fj = 12KHz to 20MHz  |
| <b>Modulation Bandwidth</b>             | 10 kHz Minimum at -3 dB   |
| <b>Linearity / Slope</b>                | ±20% Maximum of best straight line fit / Positive   |
| <b>Setability at Fnom, 25°C</b>         | +2.5V ±0.5V for 5.0V part; +1.65V ±0.4V for 3.3V part   |
| <b>Tristate Function</b>                | Input (Pin 2) High (> 2.5V) or open: Output (Pin 4) active<br>Input (Pin 2) Low (< 0.5V): Output disabled in high impedance         |
| <b>Enable/Disable Time</b>              | 100 ns Maximum  |

**Creating a Part Number**

**VCFR-155M520-B B A 3**



**OUTLINE DRAWING**

