

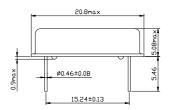
## **Voltage Controlled Temperature Compensated Crystal Oscillator**

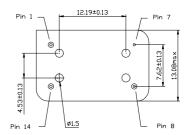
- **Excellent frequency stability**
- Wide operating temperature range
- HCMOS output, tight specifications and an internal trimmer
- Suited for communications equipment, cellular radios, and instrumentation.

TO503V

| 0                         |                                     |
|---------------------------|-------------------------------------|
| Specifications:           |                                     |
| Frequency Range:          | 1.2 MHz ~ 105.0 MHz                 |
| Operating Temperature:    | 0°C ~ +50°C                         |
|                           | -10°C ~ +60°C - B                   |
|                           | -20°C ~ +70°C - C                   |
|                           | -30°C ~ +75°C - D                   |
|                           | -40°C ~ +85°C - E                   |
| Storage Temperature:      | -40°C ~ +85°C                       |
| Frequency Stability:      |                                     |
| Vs. Temperature:          | $\pm$ 5.0 ppm                       |
|                           | $\pm$ 3.0 ppm                       |
|                           | $\pm$ 2.5 ppm                       |
|                           | ± 2.0 ppm                           |
|                           | ± 1.5 ppm                           |
|                           | ± 1.0 ppm                           |
| Vs. Input Voltage:        | $\pm0.3$ ppm at voltage $\pm5\%$    |
| Vs. Load:                 | $\pm0.2$ ppm at load $\pm10\%$      |
| Vs. Shipping:             | $\pm$ 0.5 ppm at 25°C $\pm$ 2°C     |
| Aging:                    | $\pm$ 1.0 ppm max first year        |
| Output Level:             | "0" level = 0.5V                    |
|                           | "1" level = VDD -10% min            |
| Output Waveform:          | HCMOS                               |
| Output Load:              | 30 pF HCMOS / 5 TTL                 |
| Duty Cycle:               | 50% (±5%)                           |
| Rise / Fall Time:         | 10 ns max                           |
| Frequency Adjustment:     | ± 3.0 ppm min with internal trimmer |
| Supply Voltage:           | +3.0 VDC (± 0.2%)                   |
|                           | +5.0 VDC (± 0.3%) - P               |
| Supply Current:           | 20 mA max                           |
| Voltage Controlled Range: | 5 ~ ± 80 ppm (2.5V ± 2V typ.)       |
|                           |                                     |

## Full-Size DIP-14





| Pin | Configurations |
|-----|----------------|
| 1   | VC or NG       |
| 7   | Ground         |
| 8   | Output         |
| 14  | Supply VDD     |

All dimensions are in mm

## **Ordering Information**

Product name + Operating Temperature + Stability + Frequency (MHz) Specification Code.

i.e. TO503VB2.0-8.0MHz ±2.0ppm, -10°C~+60°C, 3.0V Or TO503VB1.5P-8.0MHz ±1.5ppm, -10°C~+60°C, 5.0V

## Note:

- Other frequencies, stabilities, and operating temperature ranges available. Consult VTC Support for specific requirements.
- Not all combinations of the above, stabilities, and temperature ranges are 2. available. Consult VTC Support if your requirement is not standard.
- 3. All specifications subject to change without notice.

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