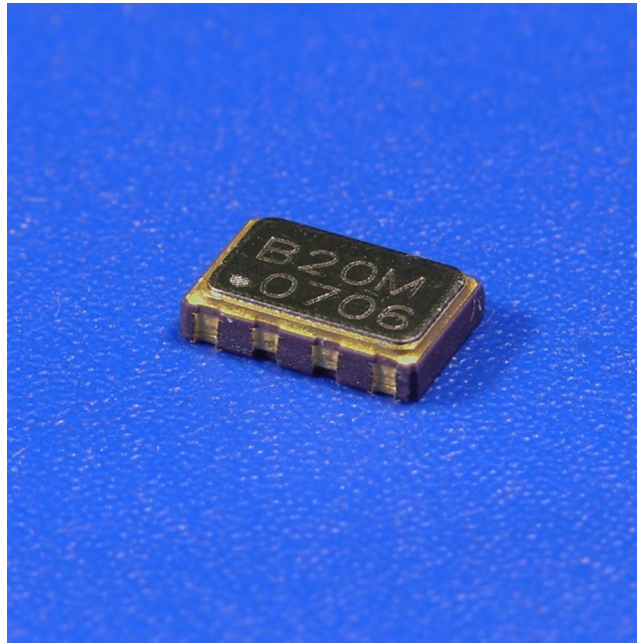


3.2 x 5 mm TCVCXO T105B Series

Description:

The T105B Temperature Compensated Crystal Oscillator (TCXO) Series products provide a CMOS output in two different in temperature stabilities and temperature ranges. This low power compact 3.2mm x 5mm package is ideal for automatic assembly operations.



Features:

- Available in select frequencies from 5 to 50 MHz.
- 2.5VDC and 3.3VDC Supply Voltage available.
- Tri-State Control
- Industry Standard CMOS output
- Standard 3.2 x 5 mm ceramic SMD package
- RoHS-6 Lead-free compliant

Frequency Range, Operating Temperature, and Frequency Stability:

| Frequency Range | Operating Temperature | Product Code | Frequency Stability | Product Code |
|--|-----------------------|--------------|---------------------|--------------|
| 5 to 50 MHz | -20 to +70° C | C | +/- 2.5 ppm | E |
| | -40 to +85° C | D | +/- 5.0 ppm | F |
| Frequency Tolerance at Room Temperature: | | | ± 3.0 ppm | |
| Frequency Stability vs. Supply Voltage (±5% Change): | | | ± 0.5 ppm | |
| Start Time | | | 2 mSec max | |

** Note: ±2.5ppm is not available over the -40 to +85° C temperature range. For other frequency stabilities and temperature ranges, consult Bliley Sales.

Aging: (typical at 10 MHz after 30 days continuous operation)

| Frequency | Timeframe | Aging | Product Code |
|-----------|-----------|-------------|--------------|
| 10 MHz | 1st Year | +/- 1.0 ppm | N/A |

Phase Noise:

| 13.0 MHz | Offset | Phase Noise (Typ.) | Product Code |
|----------|-------------|--------------------|--------------|
| | | 100 Hz | -100 dBc/Hz |
| 1 KHz | -125 dBc/Hz | | |
| 10 KHz | -143 dBc/Hz | | |
| 100 KHz | -145 dBc/Hz | | |

Supply Voltage (VDD) and Current:

| | | |
|----------------------|-------------------|-------------------|
| Power Supply (Vs) | +2.5 Vdc +/-5% | +3.3 Vdc +/-5% |
| Product Code | C | D |
| Supply Current (max) | | |
| Freq: 5MHz to 20MHz | 3.0 mA | |
| Freq: 20MHz to 50MHz | 5.0 mA | |

Environmental:

| | |
|---------------------|----------------|
| Storage Temperature | -55 to +125° C |
|---------------------|----------------|

Output Waveform:

| CMOS | |
|-------------------------|---------------|
| Product Code | N/A |
| Output High (Logic "1") | 90% VDD (min) |
| Output Low (Logic "0") | 10% VDD (max) |
| Symmetry | 50% ±5% |
| Rise/Fall Time | 6 nSec Max |

Tri-State Control

| | | |
|--------------------------------|-----------|----------|
| Supply Voltage | +2.5VDC | +3.3VDC |
| Output Active | 1.75V min | 2.0V min |
| Output in High Impedance State | 0.5V max | 0.5V max |

*Ordering Options:

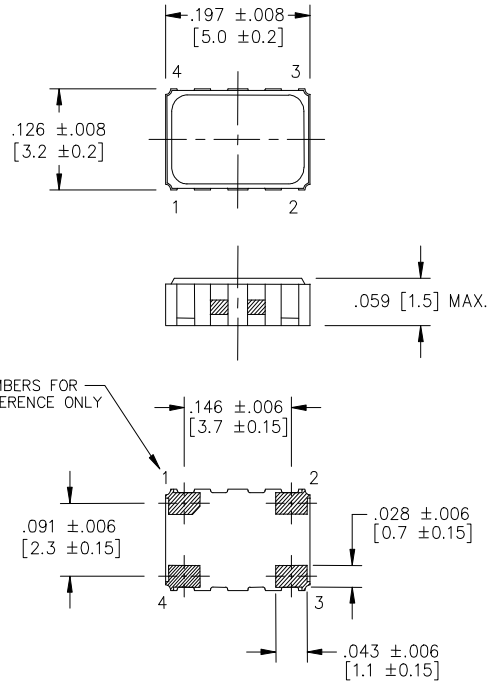
| Operating Temperature | Frequency Stability | Supply Voltage | Operating Frequency (MHz) |
|-----------------------|---------------------|----------------|---------------------------|
| C | E | C | xxMxxxx |
| D | F | D | xxMxxxx |

T105B C E C 10M0000

Product Selection Code (refer to the above example):

This part is RoHs compliant, -20 to +70C, ±2.5 ppm, 2.5 volt CMOS output at 10.000MHz operating frequency.

* Some combinations may not be available. Please consult factory



- PIN CONNECTIONS**
1. N.C. / TRISTATE
 2. GROUND
 3. OUTPUT
 4. + VDC