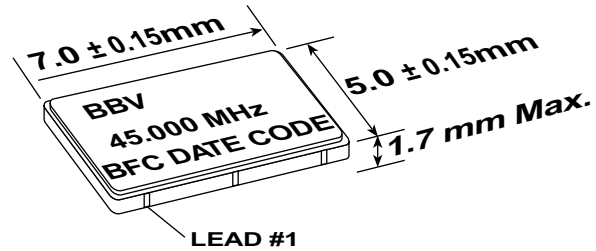




Applications:

- Phase Locked Loops
- Clocking
- Signal Modulation/Demodulation
- Reference Signal Tracking



Features:

- Ceramic Construction, Metal Lid; Seam-sealed, Resistance Welded Hermetic Package
- 1.0 to 66 MHz Frequency Range
- 0.5V to 4.5V Control Voltage
- ±50ppm Stability
- -40°C to 85°C Operating Temperature Option
- Tape and Reel Available
- Ground Shielded Top and Bottom 6-Pin 5x7mm LCC Package

Performance Specifications

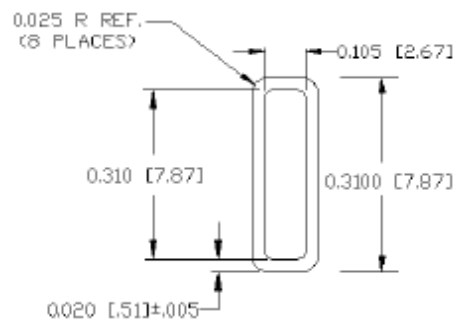
| Model | BBV Series |
|---|--------------------------------|
| Frequency Range | 1MHz to 66MHz |
| Frequency Stability(ppm Max) Over Temperature, Voltage, Load, Shock, Vibration, Aging | ± 50ppm |
| Frequency Control Function | See Note 1 |
| Minimum Tuning Limit | ± 50ppm |
| Temperature Performance | |
| Operating Temperature Range | -40°C to 85°C |
| Storage Temperature | -55°C to 125 °C |
| Electrical Specifications | |
| Supply Voltage(DC) | 5.0V ± 10 % |
| Supply Current | <50 mA Max. |
| Symmetry | 40/60 |
| Rise and Fall Time | 10 nS Max.(std.), 6nS |
| Load | 10TTL w/15pf capacitance(std.) |
| Linearity | < 10% |
| Modulation Bandwidth(3dB) | >20KHz |
| Nominal Control Voltage(V) | 2.5 |
| Control Voltage Range(V) | 0.5 to 4.5 |
| Transfer Function | Positive |
| Input Impedance | >50KΩ @ 10 KHz |
| Frequency Adjustment | Manual Adjusted (ppm) ±5 min. |
| Aging @ 25C | +/-1ppm Max/ Yr(std.) |

Typical SSB Phase Noise(dBc/Hz) Performance offset from Carrier

| | |
|--------|------|
| 10Hz | -65 |
| 100Hz | -95 |
| 1KHz | -115 |
| 10KHz | -130 |
| 100KHz | -140 |

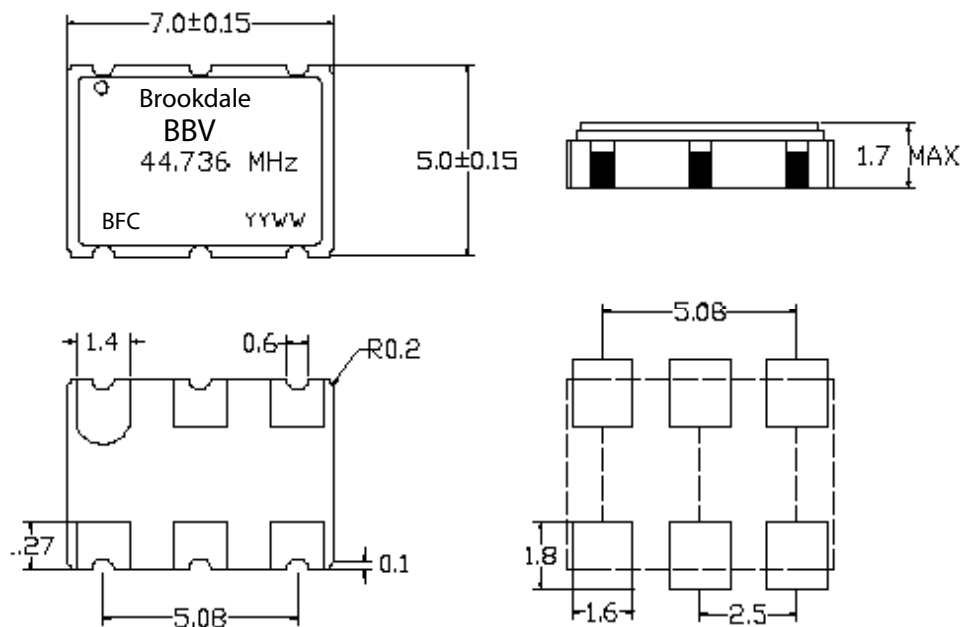
Note 1 (For Custom Deviation Range, Vc Range, etc. - Consult Factory)

Shipping Tube Cross Section

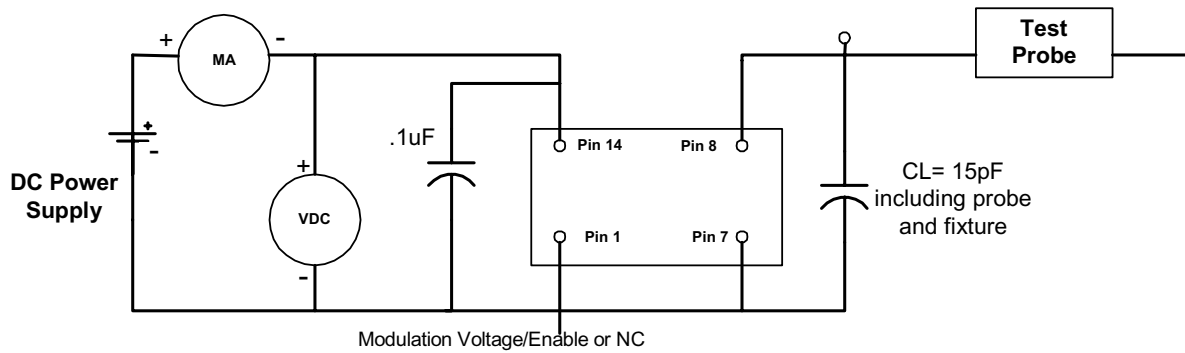


| PIN | Function |
|-----|----------------------|
| 1 | Voltage Control |
| 2 | Tri-State |
| 3 | Gnd and Ground Plane |
| 4 | Output |
| 5 | N/C |
| 6 | +V _{CC} |

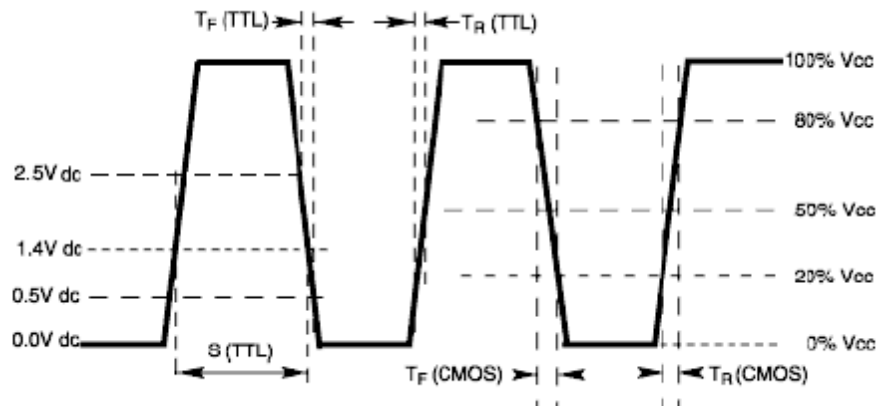
Mechanical Dimensions



Test Circuit Description



Output Waveform

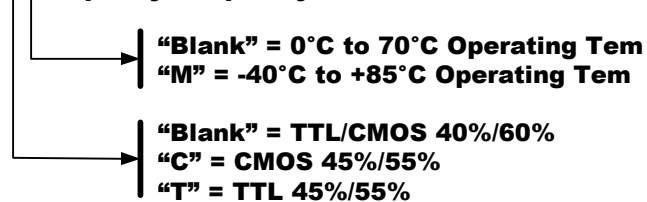


Mechanical and Environmental Specifications

| Test | Reference Documents | Test Description |
|-------------------------|---|---|
| Temperature Cycle | MIL-STD-883, Mtd 1010, Cond. B | -55°C to + 25°C; Air to Air; 100 cycles; 10 min. dwell |
| Mechanical Shock | MIL-STD-883, Mtd 2002, Cond. B | 1500g's |
| Vibration | MIL-STD-883, Mtd 2007, Cond. B | 20-2000 Hz; 0.06 inch; 15 g's; 3 planes |
| Humidity Steady State | MIL-STD-202, Mtd 103 | 40°C; 90%-95% R.H.; 56 days |
| Thermal Shock | MIL-STD-883, Mtd 1011.7, Cond. B | 100°C to 0°C; Water-to-Water; 15 cycles |
| Electrostatic Discharge | MIL-STD-883, Mtd 3015, Class II | 2 KV to 4 KV Threshold |
| Solderability | MIL-STD-883, Mtd 1005.6 | Solder dip; Meniscograph Criteria |
| Hermeticity | MIL-STD-883, Mtd 2022.2 | Mass spectro. 2 X 10 ⁻⁸ atmos. CC/sec He |
| Resistance to Soldering | MIL-STD-883, Mtd 1014.8, Cond. A1 | 260°C; 10 seconds: 1 inch/sec. |
| Lead Integrity | MMIL-STD-202, Mtd 210A, Cond. C | Lead tension and bend stress |
| Marking Permanence | MIL-STD-883, Mtd 2004.5, Cond. A, B1 | Resistance to solvents |

Part Numbering Guide

BBV XX - Specify Frequency "44.736MHz"



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