

● FEATURES

- STANDARD 8 AND 14 PIN DIP PACKAGE
- TOLERANCE AND STABILITY TO ± 25 PPM
- LOW COST
- AVAILABLE IN 3.3 VOLT

● SPECIFICATIONS

| SERIES | | CO1 | CO13 |
|-----------------------------|------------------------------------|--|--|
| PACKAGE | | 14 PIN DIP | 8 PIN DIP |
| FREQUENCY RANGE | | 500.00 KHz TO 125.00 MHz | 500.00 KHz TO 125.00 MHz |
| FREQUENCY STABILITY† | | CO1100 : ± 100 ppm | CO13100 : ± 100 ppm |
| | | CO1050 : ± 50 ppm | CO13050 : ± 50 ppm |
| | | CO1025 : ± 25 ppm | CO13025 : ± 25 ppm |
| OPERATING TEMPERATURE RANGE | | 0° C TO +70° C STANDARD -40° C TO +85° C EXTENDED | 0° C TO +70° C STANDARD -40° C TO +85° C EXTENDED |
| STORAGE TEMPERATURE RANGE | | -55° C TO +125° C | -55° C TO +125° C |
| INPUT | VOLTAGE†† | +5 VDC ± 0.5 VDC | +5 VDC ± 0.5 VDC |
| | CURRENT (MAX) | 500.00 KHz TO 2.999 MHz: 30 mA | 500.00 KHz TO 2.999 MHz: 30 mA |
| | | 3.00 MHz TO 31.999 MHz: 50 mA | 3.00 MHz TO 31.999 MHz: 50 mA |
| | | 32.00 MHz TO 79.999 MHz: 70 mA | 32.00 MHz TO 79.999 MHz: 70 mA |
| | | 80.00 MHz TO 125.00 MHz: 80 mA | 80.00 MHz TO 125.00 MHz: 80 mA |
| OUTPUT | SYMMETRY (AT 1.4 VDC LEVEL) | 40 TO 60% NORMAL 45 TO 55% TIGHT | 40 TO 60% NORMAL 45 TO 55% TIGHT |
| | RISE AND FALL TIME (0.4 - 2.4 VDC) | UNDER 9 MHz : ± 15 ns MAX | UNDER 9 MHz : ± 15 ns MAX |
| | | 9 MHz TO 32 MHz : ± 10 ns MAX | 9 MHz TO 32 MHz : ± 10 ns MAX |
| | | 32 MHz TO 80 MHz : ± 6 ns MAX | 32 MHz TO 80 MHz : ± 6 ns MAX |
| | | 80 MHz TO 125 MHz : ± 4 ns MAX | 80 MHz TO 125 MHz : ± 4 ns MAX |
| | LOGIC "0" LEVEL | +0.5 V MAX, SINK TO 16 mA | +0.5 V MAX, SINK TO 16 mA |
| | LOGIC "1" LEVEL | +2.4 V MIN, SOURCE 0.4 mA | +2.4 V MIN, SOURCE 0.4 mA |
| LOAD††† | 1 TO 10 TTL STANDARD | 1 TO 10 TTL STANDARD | |

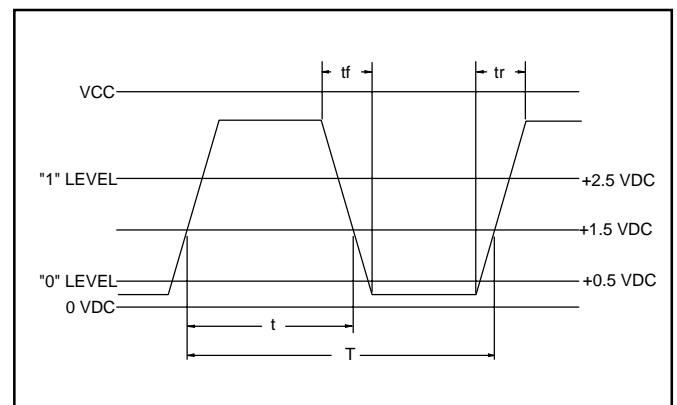


† FREQUENCY STABILITY INCLUSIVE OF ROOM TOLERANCE, FREQUENCY STABILITY OVER TEMPERATURE, 10% POWER SUPPLY VARIATION, AGING, SHOCK, AND VIBRATION
 †† +3.3 VOLT VERSION IS AVAILABLE. CONSULT RALTRON FOR SPECIFICATIONS
 ††† OUTPUT LOADS ALSO AVAILABLE AT 15 pF, 30 pF AND 50 pF. CONSULT RALTRON FOR SPECIFICATIONS

● ENVIRONMENTAL AND TECHNICAL CONDITIONS

| ENVIRONMENTAL | |
|------------------------------|---|
| TEMPERATURE CYCLE | MIL-STD 883, METHOD 1010, 10 CYCLES -20° C TO 85° C |
| SHOCK | MIL-STD-202, METHOD 213, TEST CONDITION C |
| VIBRATION | MIL-STD-202, METHOD 204, TEST CONDITION A |
| RESISTANCE TO SOLDERING HEAT | MIL-STD-202, METHOD 210, TEST CONDITION B |
| HUMIDITY | 85% RELATIVE HUMIDITY AT 85° C 250 HOURS |
| MECHANICAL | |
| GROSS LEAK TEST | MIL-STD-883, METHOD 1014, TEST CONDITION C |
| FINE LEAK TEST | MIL-STD-883, METHOD 1014, TEST CONDITION A |
| TERMINAL STRENGTH | MIL-STD-202, METHOD 211, TEST CONDITION A AND C |
| MARKING INK | EPOXY, HEAT CURED. |
| MOISTURE RESISTANCE | MIL-STD 202, METHOD 106, OMIT STEP 7B |
| SOLDERABILITY | MIL-STD-202, METHOD 208, 95% COVERAGE |
| SOLVENT RESISTANCE | MIL-STD-202, METHOD 2002, METHOD 215 |

● OUTPUT WAVEFORM

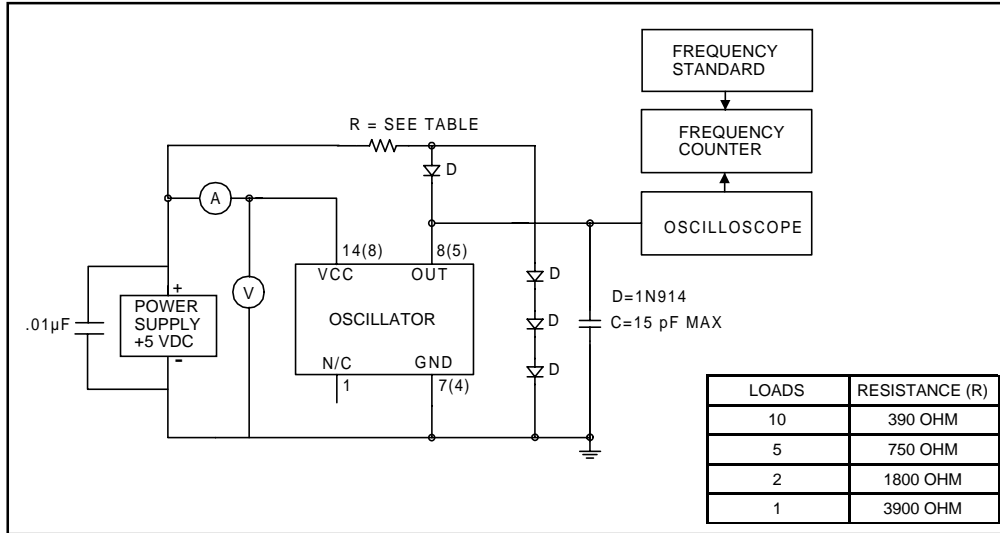


● PART NUMBERING SYSTEM

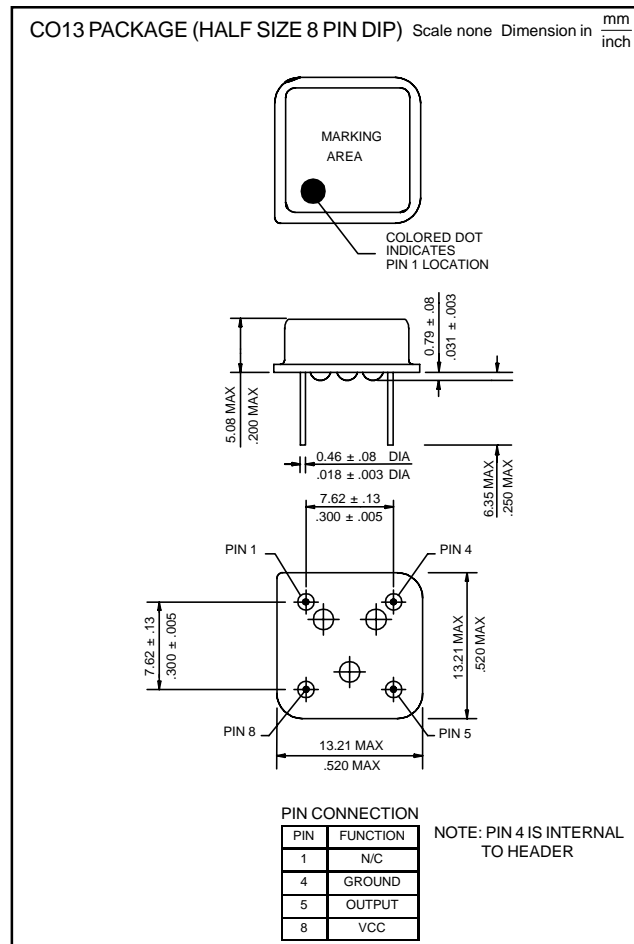
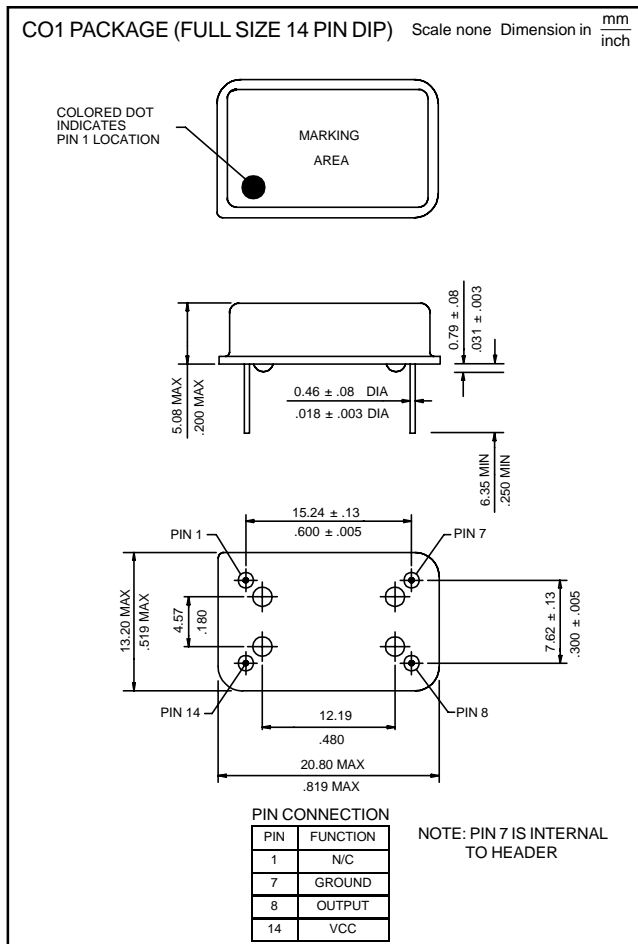
| SERIES | | FREQUENCY STABILITY | | FREQUENCY | EXTENDED TEMPERATURE | SYMMETRY | OPTIONS | |
|--------|--------------|---------------------|---------------|-----------|----------------------|----------|---------|---------------|
| CO1 | (14 PIN DIP) | 100 | ± 100 PPM | IN MHz | EXT | T | TR | TAPE AND REEL |
| CO13 | (8 PIN DIP) | 050 | ± 50 PPM | | | | GW | GULL WING |
| | | 025 | ± 25 PPM | | | | 3.3 | +3.3 V |

EXAMPLE: CO1100-20.000-EXT-T, CO13050-32.000-T-TR

● TEST CIRCUIT



● OUTLINE DRAWINGS



● PACKAGING

14 PIN DIP: 25 PIECES PER ELECTROSTATIC TUBE
8 PIN DIP: 40 PIECES PER ELECTROSTATIC TUBE