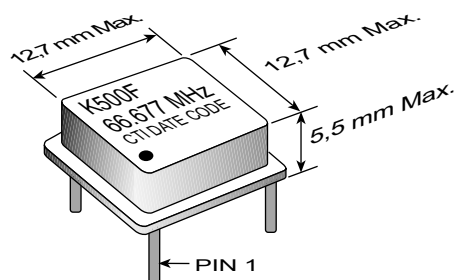


- 4-pin Package, Compatible with 8-pin DIL
- 1.5MHz to 100MHz Frequency Range
- TTL/CMOS Compatible
- Tight Symmetry (45/55%) Available
- Tri-State Option Available
- $\pm 100$ ppm Stability Standard - K1100FC
- Tighter Stabilities Available
- $\pm 25$ ppm Stability:- K1100FA
- $\pm 50$ ppm Stability:- K1100FB
- Case Ground for EMI Protection



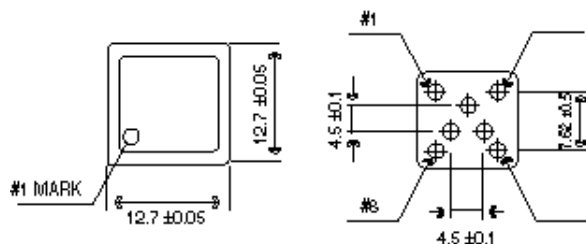
### ELECTRICAL SPECIFICATIONS

| MODEL                     | K500FA                                                                        | K500FB   | K500FC    |
|---------------------------|-------------------------------------------------------------------------------|----------|-----------|
| Frequency Range (MHz)     | 1.5 to 125                                                                    |          |           |
| Frequency Stability (ppm) |                                                                               |          |           |
| Overall                   | Inclusive of calibration, temperature, voltage, load, shock, vibration, aging |          |           |
| 0°C to 70°C               | $\pm 25$                                                                      | $\pm 50$ | $\pm 100$ |
| -40°C to 85°C             | N/A                                                                           | $\pm 50$ | $\pm 100$ |
| Temperature Range (°C)    |                                                                               |          |           |
| Operating                 | -40°C to +85°C                                                                |          |           |
| Storage                   | -55°C to +125°C                                                               |          |           |
| Supply Voltage (V)        | +5.0 $\pm 5\%$                                                                |          |           |
| Supply Current (mA)       | <30                                                                           |          |           |
| Output TTL/CMOS           |                                                                               |          |           |
| "0" Level ( $V_{OL}$ )    | 0.9 $V_{CC}$                                                                  |          |           |
| "1" Level ( $V_{OH}$ )    | 0.1 $V_{CC}$                                                                  |          |           |
| Load                      | Up to 80MHz 50pF; >80MHz 30pF                                                 |          |           |
| $T_R$ & $T_F$ (ns)        | <10                                                                           |          |           |
| Symmetry (%)              | 40/60                                                                         |          |           |
| Jitter (Typical)          | 10ps RMS @ 90MHz                                                              |          |           |
| Start up Time (ms)        | <10                                                                           |          |           |

### PART NUMBERING GUIDE

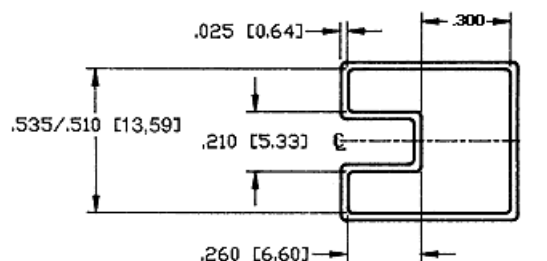
#### K500FXXXX - Specify Frequency

|       |                                                            |
|-------|------------------------------------------------------------|
| Blank | = Fixed Frequency                                          |
| E     | = Tri-State                                                |
| Blank | = 0°C to 70°C Operating Temperature                        |
| M     | = -40°C to 85°C Operating Temperature                      |
| Blank | = 40/60% Symmetry                                          |
| S     | = 45/55 Symmetry                                           |
| A     | = $\pm 25$ ppm Frequency Stability (Available 0/70°C only) |
| B     | = $\pm 50$ ppm Frequency Stability                         |
| C     | = $\pm 100$ ppm Frequency Stability                        |



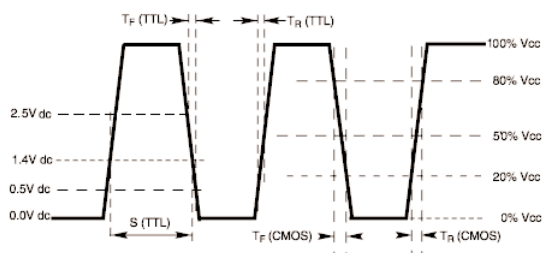
| PIN | FUNCTION         |
|-----|------------------|
| 1   | N/C / Tri-State  |
| 2   | Ground           |
| 3   | Output           |
| 4   | +V <sub>CC</sub> |

#### SHIPPING TUBE CROSS SECTION

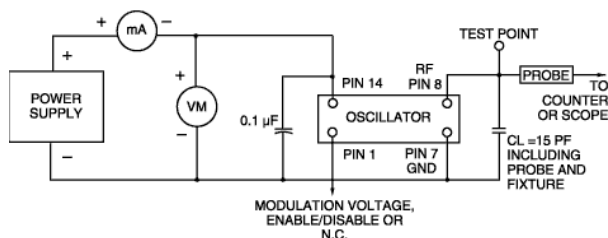


ALL DIMENSIONS ARE INSIDE

#### OUTPUT WAVEFORM



#### TEST CIRCUIT DIAGRAM



#### MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS

| TEST METHODS            | REFERENCE PROCEDURES                 | DESCRIPTION                                            |
|-------------------------|--------------------------------------|--------------------------------------------------------|
| Temperature Cycle       | MIL-STD-833, Mtd 1010, Cond. B       | -55°C to +125°C; Air-to-Air; 100 cycles; 10 min. dwell |
| Mechanical Shock        | MIL-STD-883, Mtd 2002, Cond. B       | 1500 g's                                               |
| Vibration               | MIL-STD 883, Mtd 2007, Cond. B       | 20-2000 Hz; 0.06 inch; 15g'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 2022.2              | Solder dip; Meniscograph Criteria                      |
| Hermeticity             | MIL-STD-883, Mtd 1014.8, Cond. A1    | Mass spectro. 2 x 10 <sup>-8</sup> atmos. CC/sec He    |
| Resistance to Soldering | MIL-STD-202, Mtd 210D, Cond. J       | 235°C; 30 seconds                                      |
| Lead Integrity          | MIL-STD-883, Mtd 2004.5, Cond. A, B1 | Lead tension & bend stress                             |
| Marking Permanence      | MIL-STD-883, Mtd 2015.8              | Resistance to solvents                                 |
| Life Test               | MIL-STD-883, Mtd 1005.6              | 125°C, powered, 1000 hours minimum                     |