

5Vdc or 3.3Vdc • TTL / CMOS AND SINE WAVE

## TEMPERATURE-COMPENSATED XTAL OSCILLATORS

# ACTX 1018 and ACVTX 1018 Series



18.3 x 12 x 8.0 mm

### FEATURES:

- Compatible with 14 pin dual in line.
- Compact size.
- Tight stability available.
- Low current consumption.
- Control voltage function.
- Low can height option.

### APPLICATIONS:

- Cellular and cordless phones.
- Reference clock.
- Facsimile and computer control.
- Communication equipment.

## STANDARD SPECIFICATIONS

| PARAMETERS                              | ACTX 1018 (A)<br>ACVTX1018 (A)                | ACTX 1018S (A)<br>ACVTX1018S (A)                          |
|-----------------------------------------|-----------------------------------------------|-----------------------------------------------------------|
| Frequency Range ( $F_0$ )               | 1MHz - 35MHz                                  | 8MHz - 45MHz                                              |
| Operating Temperature ( $T_{OPR}$ )     | -10°C to +60°C (See Options / Table 1)        |                                                           |
| Storage Temperature ( $T_{STO}$ )       | -40°C to +85°C                                |                                                           |
| Frequency Stability -vs- 25°C           | ±0.5ppm max.                                  |                                                           |
| -vs- Temperature                        | ±2.5ppm max. (See Options / Table 1)          |                                                           |
| -vs- Load (± 10%)                       | ±0.2ppm max.                                  |                                                           |
| -vs- Aging                              | ±1ppm per year max.                           |                                                           |
| -vs- Supply Voltage (±5%)               | ±0.5ppm max.                                  |                                                           |
| Supply Voltage ( $V_{DD}$ )             | 5Vdc ±5% or 3.3Vdc ±5% (A Series)             |                                                           |
| Input Current ( $I_{DD}$ )              | 20mA max.                                     | 2mA max. for $F \leq 35$ MHz<br>4mA max. for $F > 35$ MHz |
| Duty Cycle or Symmetry                  | 40 / 60% max.                                 | N / A                                                     |
| Rise and Fall Times ( $T_R / T_F$ )     | 10ns max.                                     | N / A                                                     |
| Output Load                             | 15pF or 10TTL                                 | 10k $\Omega$ // 10pF                                      |
| Output Voltage ( $V_{OH}$ )             | 0.9 * $V_{DD}$ min.                           | 1Vpp min. Clipped Sine                                    |
| ( $V_{OL}$ )                            | 0.4Vdc max.                                   | 0.7Vpp min. (A Series)                                    |
| Frequency Adjustment (Internal Trimmer) | ±3ppm min.                                    |                                                           |
| Vc and Freq. Pulling (V Series)         | 0.5V to 4.5V or 0.3V to 3.0V (±5ppm ~ ±20ppm) |                                                           |

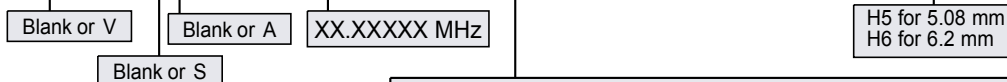
Test circuit, waveforms, see appendix B. Recommended handling, see appendix F.

Environmental and mechanical specifications, see appendix C. Group 4.

Marking, see appendix G. Application notes, see appendix A.

## ORDERING OPTIONS

ACXTX 1018XX - Frequency - Temperature & Frequency Stability - Max. Can Height



| PIN # | FUNCTION   |
|-------|------------|
| 1     | Vc or NC   |
| 7     | GND / Case |
| 8     | Output     |
| 14    | $V_{CC}$   |

| TABLE 1              |              |            |              |            |              |            |            |  |
|----------------------|--------------|------------|--------------|------------|--------------|------------|------------|--|
| TEMPERATURE RANGE °C | ±0.5ppm max. | ±1ppm max. | ±1.5ppm max. | ±2ppm max. | ±2.5ppm max. | ±3ppm max. | ±5ppm max. |  |
| 0°C to +50°C         | C 05         | C 10       | C 15         | C 20       | C 25         | C 30       | C 50       |  |
| -10°C to +60°C       |              | D 10       | D 15         | D 20       | Standard     | D 30       | D 50       |  |
| -20°C to +70°C       |              |            |              | E 20       | E 25         | E 30       | E 50       |  |
| -30°C to +75°C       |              |            |              | F 20 *     | F 25 *       | F 30 *     | F 50 *     |  |
| -40°C to +85°C       |              |            |              |            |              | G 30 *     | G 50 *     |  |

NOTE: Left blank if standard • All specifications and markings subject to change without notice

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ISO 9001 / QS 9000  
CERTIFIED

29 Journey • Aliso Viejo, CA 92656 • USA

(949) 448-7070 • Fax: (949) 448-8484

E-MAIL: [abinfo@abracon.com](mailto:abinfo@abracon.com) • INTERNET ADDRESS: [www.abracon.com](http://www.abracon.com)

