

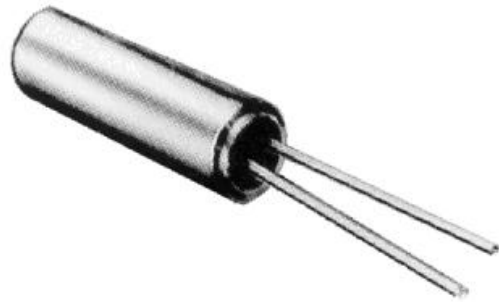
Series WX2 CYLINDER CRYSTAL 32.768KHz



- Wide Frequency range
- High shock tolerance
- Small size
- Reliable frequency stability

APPLICATIONS

- Microprocessor Systems
- Consumer Electronics
- Instrumentation
- Automotive electronics



ELECTRICAL SPECIFICATIONS FOR 2 x 6mm & 3 x 8mm

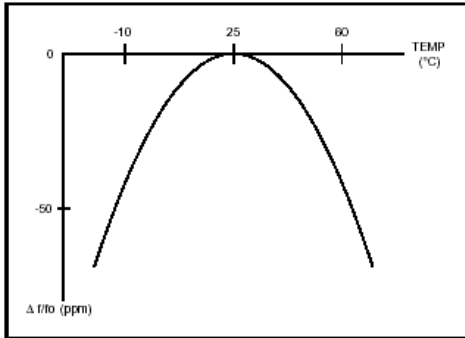
| | |
|--|---------------------------------------|
| Frequency | 30KHz-350KHz , |
| Frequency Tolerance (at 25°C) | ±20ppm |
| ESR | 32KHz-40KHz: 40Kohm Max |
| | 40KHz-60KHz: 30Kohm Max |
| | 60KHz-70KHz: 25Kohm Max |
| | 70KHz-200KHz: 22Kohm Max |
| | 200KHz-3500KHz: 20Kohm Max |
| Turnover Temperature | 25 ± 5°C |
| Frequency Temperature Curve | -0.034(±0.006)ppm/°C ² |
| Storage Temperature Range | -55 °C to +125 °C |
| Operable Temperature Range | -10 °C to + 60 °C, -20+70°C, -40+85°C |
| Shunt Capacitance (C0) | 2.0pF Typ |
| Dynamic Capacitance (C1) | 4.0pF Typ |
| Driver Level (Typical) | 1 μW Max |
| Load Capacitance(C _L) | 6pF, 12.5pF, |
| Aging @25°C 1 st year (Max) | ±3ppm/year |

REMARK: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. PLEASE CONFIRM WITH OUR SALES ENGINEER.

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Frequency VS Temperature Curve

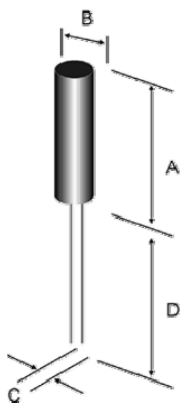


ELECTRICAL SPECIFICATIONS FOR 3 x 9mm & 3 x 10mm

| | | | | | | | | | |
|--|--|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| Frequency | 3.579 ~3.99 | 4.000 ~4.49 | 4.500 ~4.99 | 5.000 ~6.99 | 7.000 ~9.99 | 10.000 ~11.99 | 12.000 ~13.99 | 14.000 ~15.99 | 16.000 ~27.00 |
| Frequency Tolerance | +/-15ppm, +/-30ppm, +/-50ppm, or specify | | | | | | | | |
| ESR (ohm) | 180 | 150 | 120 | 100 | 80 | 70 | 60 | 50 | 40 |
| Load Capacitance | 12/16/18/20/32pF | | | | | | | | |
| Drive Level | 10~100 uW | | | | | | | | |
| Frequency Stability over Operating Temperature | +/-15ppm, +/-30ppm, +/-50ppm, or specify | | | | | | | | |
| Shunt Capacitance | 5pF Max | | | | | | | | |
| Aging | +/-5ppm/year | | | | | | | | |
| Insulation Resistance | 500Mohm Min (DC 100V) | | | | | | | | |
| Operating Temperature | -10°C ~ +60°C / -20°C ~ +70°C | | | | | | | | |
| Storage Temperature | -30°C ~ +85°C | | | | | | | | |

PACKING AND DIMENSIONS

Dimensions (Unit: mm)



See table 1



| MODEL | A | B | C | D | E |
|---------|------|------|-----|------|-----|
| 2x6mm | 6.3 | 1.95 | 0.7 | 7.0 | 0.2 |
| 3x8mm | 8.3 | 3.1 | 1.1 | 10.0 | 0.3 |
| 3x9mm | 9.3 | 3.1 | 1.1 | 10.0 | 0.3 |
| 3 x10mm | 10.1 | 3.1 | 1.1 | 10.0 | 0.3 |