T-50-05

# OVEN CONTROLLED CRYSTAL OSCILLATORS (OCXO)

## ■9100 Series

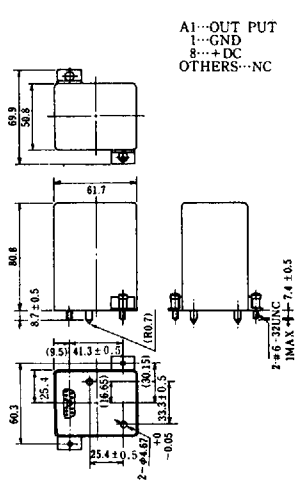
Main applications: Communications equipment, Measuring instruments etc.

Features: 1. Excellent aging characteristics
2. Wide frequency range (9168A Series)
3. Anti-microphonic noise (9140A-BGE71, 9140A-CEE70)

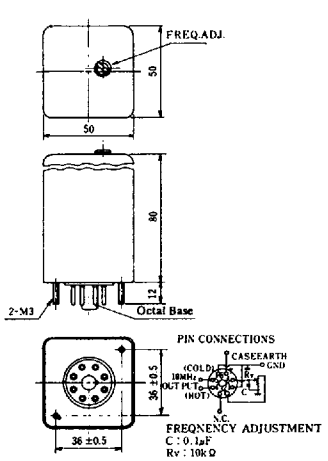
| Item / Measuring Condition \ Model | Spec. Code | 9161A | | 9150A | 9150B | | 9140A |
|---|---|---|---|---|---|---|---|
| | | C | | Q | B | | C |
| | | GQ00 | FQ00 | AA00 | EE40 | DE40 | FA00 |
| Standard Nominal Frequency (MHz) | | 10 | | | | | 25 |
| Supply Voltage | | +30VDC | | +24VDC | +12VDC | | |
| Power Consumption | | 45W MAX | | 8.5W MAX | 5W MAX | | 1.4W MAX |
| Output Voltage | | +10～+12dBm | | 0～+2dBm | 1 Vrms MIN | | 0dBm±1dB |
| Load | | 50Ω | | | 1kΩ | | 50Ω |
| Operating Temp. Range | | −55～85℃ | | 0～50℃ | −10～60℃ | | 0～50℃ |
| Operable Temp. Range | | −62～95℃ | | −10～60℃ | −20～70℃ | | −10～70℃ |
| Frequency Stability: Short Term Stability | △f/f(2,τ) 1sec | $1\times10^{-10}$ | | $5\times10^{-11}$ | $5\times10^{-10}$ | $1\times10^{-10}$ | —— |
| Frequency Stability: Aging | After 24H(*1) or 48H(*2) or 240H(*3) operation | ±1×10⁻⁹/day (*2) | | ±5×10⁻¹⁰/day (*2) | ±2×10⁻⁸/day (*1) | ±2×10⁻⁹/day (*1) | ±5×10⁻⁹/day (*2) |
| | | ±5×10⁻⁸/year (*2) | | ±2×10⁻⁸/year (*2) | ±1×10⁻⁷/year (*1) | ±5×10⁻⁸/year (*1) | ±5×10⁻⁸/year (*3) |
| Frequency Stability: Temp. Charact. | Temp. Range | −55～85℃ | | 0～50℃ | −10～60℃ | | 0～50℃ |
| | Tolerance | ±1×10⁻⁷ | ±5×10⁻⁸ | ±2×10⁻⁹ | ±3×10⁻⁸ | ±1×10⁻⁸ | ±5×10⁻⁸ |
| Frequency Stability: Supply Volt Change | Condition | +30V±5% | | +24V±10% | +12V±10 % | | ±12V±5% |
| | Specification | ±5×10⁻⁹ | ±3×10⁻⁹ | ±1×10⁻⁹ | ±2×10⁻⁸ | ±5×10⁻⁹ | ±2×10⁻⁸ |
| Frequency Stability: Vibration | Tot amp. 1.5 mm Freq. 10～55 Hz 3 planes/30 min each | ±5×10⁻⁹ | | | ±5×10⁻⁸ | ±3×10⁻⁸ | ±5×10⁻⁸ |
| Frequency Stability: Shock | Natural Drop from 5 cm height, 3 planes/3 times each | ±5×10⁻⁹ | | | ±5×10⁻⁸ | ±3×10⁻⁸ | ±5×10⁻⁸ |
| Frequency Trim Range | By Internal Trimmer | ±3×10⁻⁷ MIN | | | ±1×10⁻⁶ MIN | | |
| Case Code | | 61A | | 50A | 50B | | 40A-1 |

(mm)

**NO.61A**




**NO.50A**

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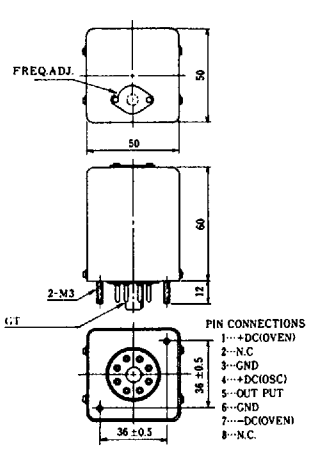


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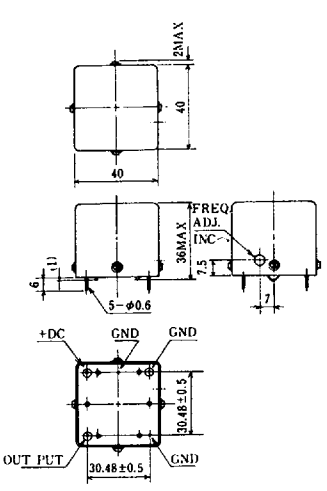




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