Crystal oscillator

SEIKO EPSON CORPORATION

| тсхо/ус-тс | хо | | Pb | RoHS | TG-5031 | CJ : X1Ġ0 | ease contact us) 03891xxxx00 |
|--|----|---|-------------------------------|-----------|----------------------|-----------|---------------------------------|
| TG - 5031CJ/ | | | Free | Compliant | | | 03581xxxx00 03821xxxx00 |
| TG - 50 | 2 | 1CG/CE | and and | TAIL | | 6 | C9 53 10 |
| Frequency range | : | 13 MHz to 52 MHz (TG-5031CJ/TG-5021CG) 10 MHz to 40MHz (TG-5021CE) | | V | | | |
| Supply voltage | | 1.8 V Typ. (TG-5031CJ) 2.8 V Typ. (TG-5021CG/CE) | TG-5031CJ (2.0 × 1.6 × 0.7 | | 021CG 2.0 × 0.8 i | | 5021CE × 2.5 × 0.9 mm) |
| •Frequency / temperature characteristics | | | Actual size | | | | |
| Applications | : | ±2.0x 10 ⁻⁶ Max. Wireless communication devices (CDMA, WCDMA, LTE, WiMAX, other) | TG-5031CJ | TG-5021CG | TG-5 | 5021CE | |
| •Features | : | Low phase noise | | | | | |

Specifications (characteristics)

| Item | Symbol | VC-TCXO | ТСХО | Conditions / Remarks | | |
|-------------------------------|---------|---|------|---|--|--|
| | | 13 MHz, 19.2 MHz, 26 MHz and 38.4 MHz | | Standard frequency | | |
| Output frequency range | fo | 13.000 MHz to 52.000 MHz | | TG-5031CJ/TG5021CG | | |
| | | 10.000 MHz to 40.000 MHz | | TG-5021CE | | |
| Current currente e e | Vcc | 1.8 V ±0.1 V (Range :1.7 V to 3.3 V) | | TG-5031CJ | | |
| Supply voltage | VCC | 2.8 V ±0.14 V (Range :2.3 V to 3.6 V) | | TG-5021CG/TG5021CE | | |
| Storage temperature | T_stg | -40 °C to +85 °C | | Storage as single product. | | |
| Operating temperature | T_use | -30 °C to +85 °C | | | | |
| Frequency tolerance | f_tol | ±2.0 ×10 ⁻⁶ Max. | | After reflow, +25 °C | | |
| Frequency/temperature | fo-Tc | ±2.0 × 10 ⁻⁶ Max. / -30 °C to +85 °C | | | | |
| characteristics | 10-1C | | | | | |
| Frequency/load coefficient | fo-Load | ±0.2 × 10 ⁻⁶ Max. | | 10 kΩ // 10 pF ±10 % | | |
| Frequency/voltage coefficient | fo-Vcc | ±0.2 ×10 ⁻⁶ Max. | | Vcc =1.8 V ±0.1 V (TG-5031CJ) Vcc =2.8 V ±0.14 V (TG-5021CG/CE) | | |
| | | ±1.0 ×10 ⁻⁶ Max. | | +25 °C , First year,10 MHz≦fo≦40 MHz | | |
| Frequency aging | f_age | ±1.5 ×10 ⁻⁶ Max. | | +25 °C , First year, 10 MHz \leq 10 \leq 40 MHz +25 °C , First year, 40 MHz $<$ fo \leq 52 MHz | | |
| Current consumption | Icc | 2.0 mA Max. | | | | |
| Input resistance | Rin | 500 kΩ Min. — | | Vc- GND (DC) | | |
| - | | $\pm 5.0 \times 10^{\text{-6}}$ to $\pm 12.0 \times 10^{\text{-6}}$ | | Vc=0.9 V ±0.6 V (Vcc =1.8 V) | | |
| Frequency control range | f_cont | | | Vc=1.4 V ±1.0 V (Vcc =2.8 V) | | |
| Frequency change polarity | | Positive polarity | | | | |
| Symmetry | SYM | 40 % to 60 % | | GND level (DC cut) | | |
| Output voltage | Vpp | 0.8 V Min. | | Peak to Peak | | |
| | Load_R | | | DC cut capacitor = 0.01 µF | | |
| Output load condition | Load_C | | | | | |

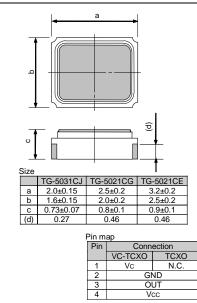
* Note : Please contact us for requirements not listed in this specification.

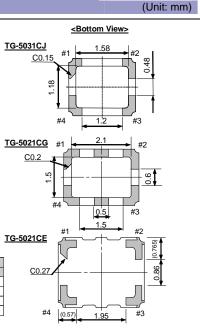
Product Name (Standard form) TG-5031 CJ-*** 26.00000MHz

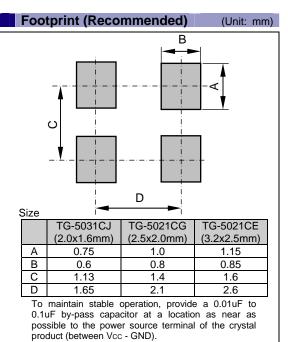
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 Model ②Package type ③Spec segment (Please contact us) ④Frequency

External dimensions







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|-------------------|---|
| RoHS | Complies with EU RoHS directive. *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.) |
| For Automotive | ► Designed for automotive applications such as Car Multimedia, Body Electronics, Remote Keyless Entry etc. |
| Automotive Safety | ► Designed for automotive applications related to driving safety (Engine Control Unit, Air Bag, ESC etc). |

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