

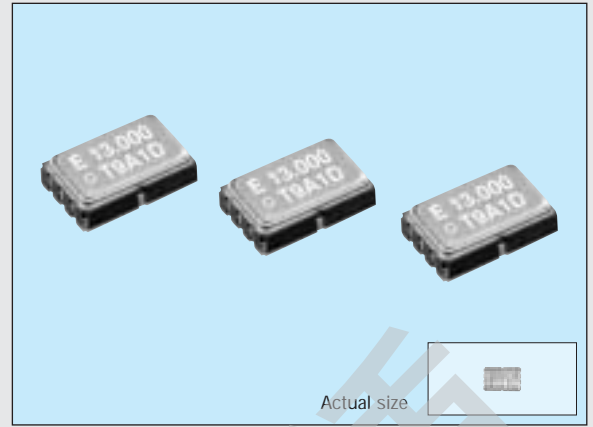
TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

TG-2820CB

Product number (please refer to page 2)

Q3702CB0x xxx x00

- Developed for cellular phone.
- Reflowable and high density mounting type ultra small size SMD. (5.0x3.2x1.5 mm)
- Using the heat-resisting type AT cut quartz crystal. allows almost the same temperature soldering as universal SMD IC.
- Operating supply voltage : 2.8 V.



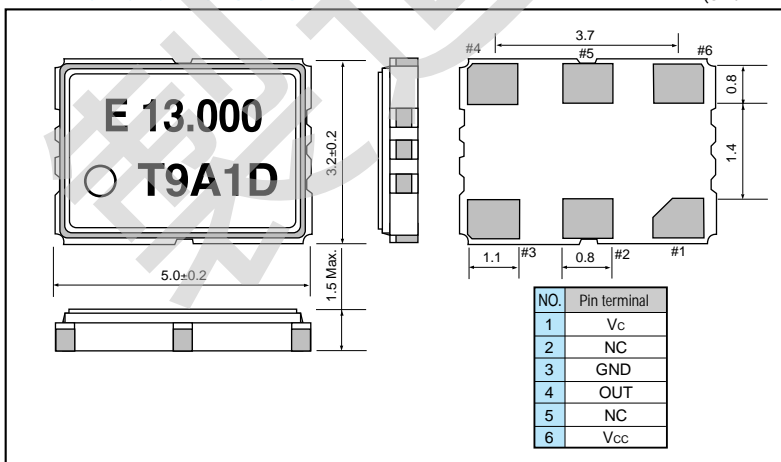
Specifications

| Item | Symbol | Specifications | Remarks |
|--|-----------------------|--|---|
| Output frequency range | f_0 | 12.5000 MHz to 19.8000 MHz Standard : 12.8000, 13.0000, 16.8000, 19.2000, 19.6800, 19.8000MHz | |
| Power source voltage | Max. supply voltage | V_{CC-GND} | -0.3 V to +6.0 V |
| | Operating voltage | V_{CC} | 2.8 V \pm 0.14 V |
| Temperature range | Storage temperature | T_{STG} | -40 °C to +85 °C |
| | Operating temperature | T_{OPR} | -30 °C to +80 °C |
| Frequency tolerance | Δf_0 | $\pm 1.5 \times 10^{-4}$ Max. | $V_C=1.4$ V, +25 °C \pm 2 °C |
| Frequency stability vs. temperature | Δf_T | $\pm 2.5 \times 10^{-6}$ Max. | -30 °C to +80 °C (reference at +25 °C) |
| Frequency stability vs. load | Δf_L | $\pm 0.2 \times 10^{-6}$ Max. | 10 k Ω //10 pF \pm 10% |
| Frequency stability vs. supply voltage | Δf_V | $\pm 0.3 \times 10^{-6}$ Max. | 2.8 V \pm 5 % |
| Aging | f_a | $\pm 1 \times 10^{-6}$ Max. | $T_a=+25$ °C, first year |
| Current consumption | I_{CC} | 1.5 mA Max. | $V_{CC}=2.8$ V, 10 k Ω //10 pF |
| Input resistance | Z_{IN} | 800 k Ω Min. | $V_C-GND(DC)$, $V_C=1.4$ V |
| Frequency control range | Δf_C | $\pm 7 \times 10^{-6}$ Min. | $V_C=1.4$ V \pm 1.0 V |
| Frequency change polarity | | Positive polarity | |
| Duty | Duty | 30 % to 70 % | GND level (DC cut) |
| Output level | V_{OUT} | 0.8 V Min. | Peak to peak |
| Output load | R_L | 9 k Ω to 11 k Ω | DC cut capacitor = 0.01 μ F |
| | C_L | 9 pF to 11 pF | |

Note: Please contact us for inquiries about specifications other than the above.

External dimensions

(Unit: mm)



Recommended soldering pattern

(Unit: mm)

