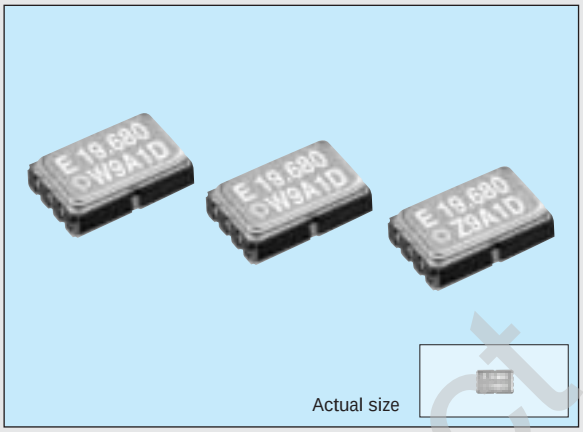
TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

TG-2832CB / 2833CB

Products number (please refer to page 2)

Q3705CB0xxxxx00
Q3706CB0xxxxx00



- Developed for Suited for wireless communication equipment (Low noise level: -120 dBc/Hz Typ. at 100 Hz offset, fo = 19.68 MHz)
- Power saving function (standby function)built-in. (TG-2832CB)
- 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 temprature soldering as universal SMD IC.
- Operating supply voltage : 2.8 V.

Specifications

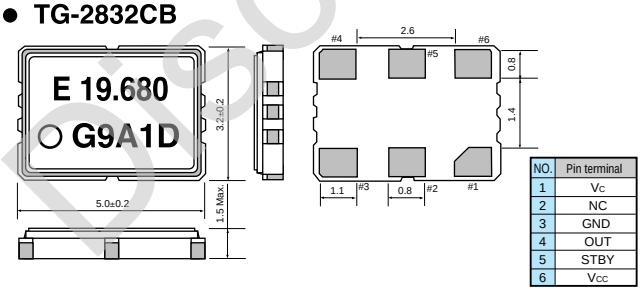
Item		Symbol	Specifications TG-2832CB	Specifications TG-2833CB	Remarks
Output frequency range		f_0	16.0000 MHz to 26.0000 MHz Standard : 16.3670, 19.2000, 19.4400, 19.6800, 19.8000, 26.000 MHz		16 MHz ≤ fo ≤ 19 MHz : No frequency control function
Power source voltage	Max. supply voltage	V_{CC}-GND	-0.3 V to +6.0 V		
	Operating voltage	V_{CC}	2.8 V ±0.14 V		
Temperature range	Storage temperature	T_{STG}	-40 °C to +85 °C		Stored as bare product after unpacking
	Operating temperature	T_{OPR}	-30 °C to +80 °C		
Frequency tolelance		Δf_0	±1.5 x 10^{-6} Max.		V_C=1.4 V, +25 °C ±2 °C
Frequency stability vs.temperature		Δf_T	±2.5 x 10^{-6} Max.		-30 °C to +80 °C (reference at +25 °C)
Frequency stability vs.load		Δf_L	±0.2 x 10^{-6} Max.		10 kΩ//10 pF ± 10%
Frequency stability vs. supply voltage		Δf_V	±0.3 x 10^{-6} Max.		2.8 V ±5 %
Aging		f_a	±1 x 10^{-6} Max.		Ta=+25 °C,first year
Supply current		I_{CC}	2.0 mA Max.		V_{CC}=2.8 V, 10 kΩ//10 pF 19.68 MHz,STBY=V_{CC}
			50 µA Max.	–	V_{CC}=2.8 V, 10 kΩ//10 pF 19.68 MHz,STBY=GND (DC cut)
Input resistance		Z_{IN}	800 kΩ Min.		V_C-GND(DC), V_C=1.4 V
Frequency control range		Δf_C	7 x 10^{-6} Min.		V_C=1.4 V ±1.0 V, 19 MHz < fo ≤ 26 MHz 16 MHz ≤ fo ≤ 19 MHz : No frequency control function
Frequency change polarity			Positive polarity		
Duty		Duty	40 % to 60 %		GND level (DC cut)
Output level		V_{OUT}	0.8 V Min.		Peak to peak
Output load		R_L	9 kΩ to 11 kΩ		DC cut capacitor = 0.01 µF
		C_L	9 pF to 11 pF		

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

External dimensions

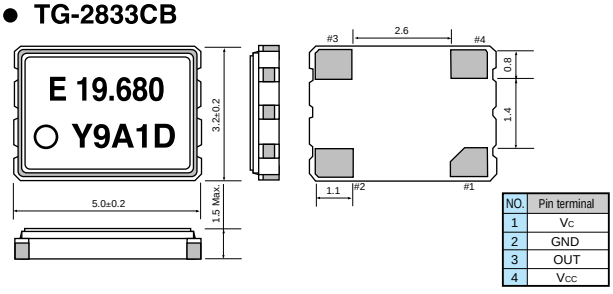
(Unit: mm)

● TG-2832CB



NO.	Pin terminal
1	V_C
2	NC
3	GND
4	OUT
5	STBY
6	V_{CC}

● TG-2833CB

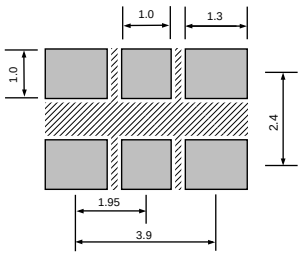


NO.	Pin terminal
1	V_C
2	GND
3	OUT
4	V_{CC}

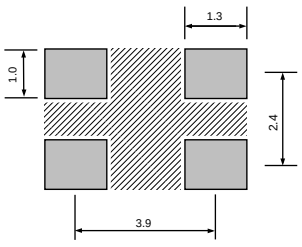
Recommended soldering pattern

(Unit: mm)

● TG-2832CB



● TG-2833CB



Do not design any patterns except GND on the shaded area. Except for this recommended soldering pattern, please contact us for inquiries.