

TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

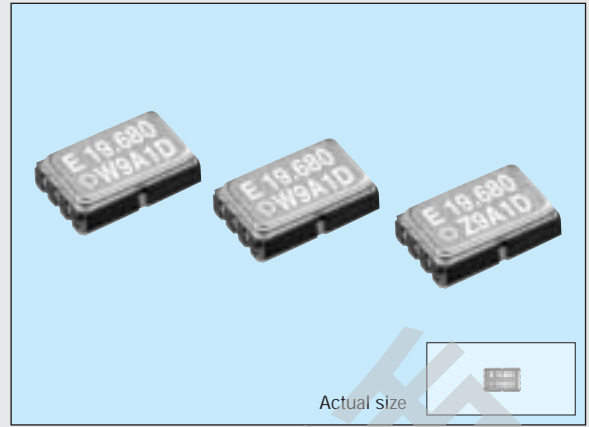
TG-2832CB / 2833CB

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.



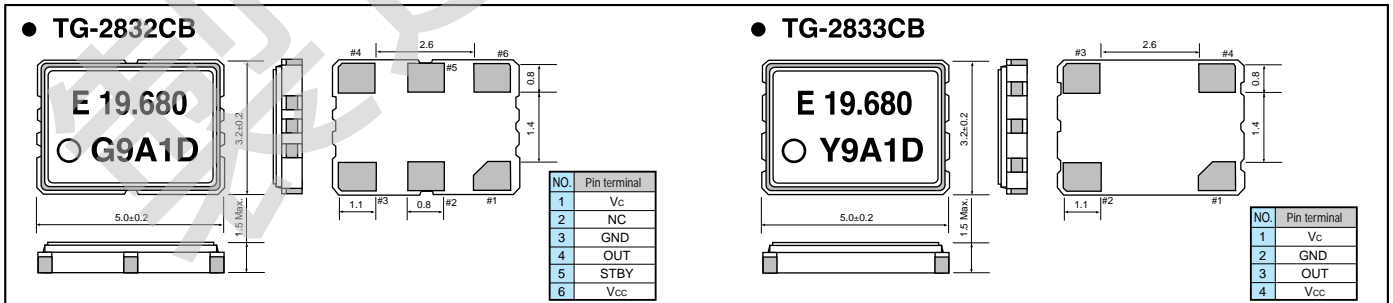
Specifications

Item	Symbol	Specifications		Remarks
		TG-2832CB	TG-2833CB	
Output frequency range	fo	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	-0.3 V to +6.0 V		Stored as bare product after unpacking
	Operating voltage	2.8 V ±0.14 V		
Temperature range	Storage temperature	-40 °C to +85 °C		Stored as bare product after unpacking
	Operating temperature	-30 °C to +80 °C		
Frequency toleance	Δfo	±1.5 x 10 ⁻⁶ Max.		Vc=1.4 V, +25 °C ±2 °C
Frequency stability vs.temperature	Δfr	±2.5 x 10 ⁻⁶ Max.		-30 °C to +80 °C (reference at +25 °C)
Frequency stability vs.load	Δfl	±0.2 x 10 ⁻⁶ Max.		10 kΩ//10 pF ± 10%
Frequency stability vs. supply voltage	Δfv	±0.3 x 10 ⁻⁶ Max.		2.8 V ±5 %
Aging	fa	±1 x 10 ⁻⁶ Max.		Ta=+25 °C,first year
Supply current	Icc	2.0 mA Max.		Vcc=2.8 V, 10 kΩ//10 pF 19.68 MHz,STBY=Vcc
		50 μA Max.	-	Vcc=2.8 V, 10 kΩ//10 pF 19.68 MHz,STBY=GND (DC cut)
Input resistance	ZIN	800 kΩ Min.		Vc-GND(DC), Vc=1.4 V
Frequency control range	Δfc	7 x 10 ⁻⁶ Min.		Vc=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	VOUT	0.8 V Min.		Peak to peak
Output load	RL	9 kΩ to 11 kΩ		DC cut capacitor = 0.01 μF
	CL	9 pF to 11 pF		

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

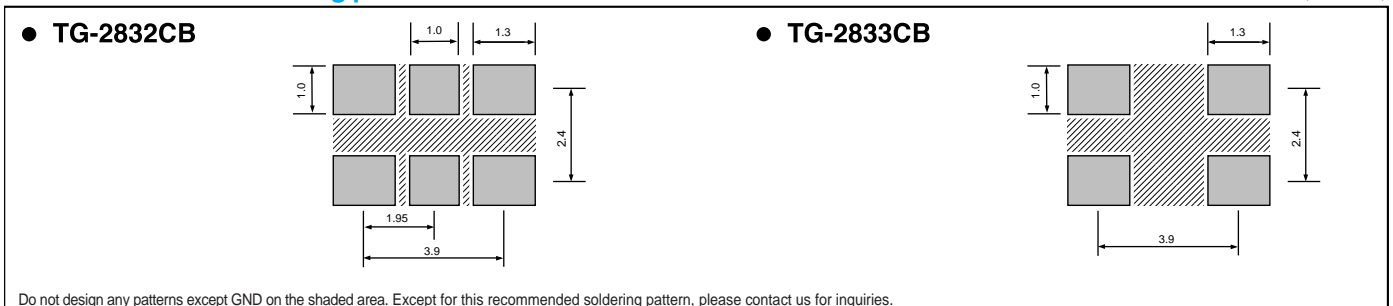
External dimensions

(Unit: mm)



Recommended soldering pattern

(Unit: mm)



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