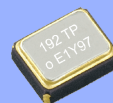


**MHz RANGE CRYSTAL UNIT****Built-in thermistor****FA-128S**

- Nominal frequency range : 38.4 MHz
- External dimensions : $2.0 \times 1.6 \times 0.9$ mm
- Overtone order : Fundamental
- Applications : Mobile phone, Bluetooth, W-LAN
ISM band radio, Clock for MPU
GPS, Smart phone

Product Number (please contact us)
FA-128S : X1E000361xxxx17

Actual size

**Specifications (characteristics)**

Item	Symbol	Specifications	Conditions / Remarks
Nominal frequency range	f_nom	38.4 MHz	Fundamental Please contact us about available frequencies.
Storage temperature range	T_stg	-40 °C to +125 °C	Storage as single product.
Operating temperature range	T_use	-40 °C to +85 °C	
Level of drive	DL	100 μ W Max.	Recommended: 1 to 100 μ W
Frequency tolerance	f_tol	$\pm 10 \times 10^{-6}$ *1	Please contact us about reference temperature. Please contact us for inquiries.
Frequency versus temperature characteristics	f_tem	$\pm 12 \times 10^{-6}$ *1	-30 °C to +85 °C Please contact us for inquiries.
Load capacitance	CL	6 pF to ∞	Please specify.
Motional resistance (ESR)	R1	60 Ω Max.	-30 °C to +85 °C
Frequency aging	f_age	$\pm 1 \times 10^{-6}$ / year Max.	+25 °C, First year
Thermistor resistance	—	Please contact us about specifications.	
Thermistor B constant	—		

*1 Please contact us for available frequency tolerances as they are dependent upon the nominal frequency.

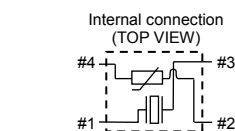
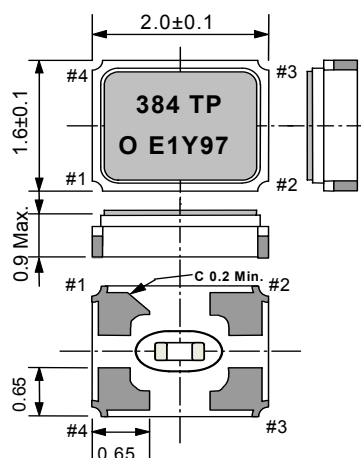
Product name FA-128S 38.400000MHz 7.0 +10.0-10.0
(Standard form) ① ② ③ ④①Model ②Frequency ③Load capacitance(pF) ④Frequency tolerance($\times 10^{-6}$, +25 °C)

In addition to the above mentioned specification item, please specify frequency temperature characteristics and operating temperature range in case of inquiry.

External dimensions

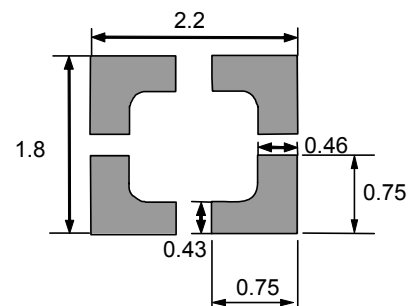
(Unit:mm)

FA-128S



Pin map

Pin	connection
1	Crystal
2	GND, thermistor
3	Crystal
4	thermistor

Footprint (Recommended) (Unit:mm)

PROMOTION OF ENVIRONMENTAL MANAGEMENT SYSTEM CONFORMING TO INTERNATIONAL STANDARDS

At Seiko Epson, all environmental initiatives operate under the Plan-Do-Check-Action (PDCA) cycle designed to achieve continuous improvements. The environmental management system (EMS) operates under the ISO 14001 environmental management standard.

All of our major manufacturing and non-manufacturing sites, in Japan and overseas, completed the acquisition of ISO 14001 certification.

ISO 14000 is an international standard for environmental management that was established by the International Standards Organization in 1996 against the background of growing concern regarding global warming, destruction of the ozone layer, and global deforestation.





WORKING FOR HIGH QUALITY

In order provide high quality and reliable products and services than meet customer needs,

Seiko Epson made early efforts towards obtaining ISO9000 series certification and has acquired ISO9001 for all business establishments in Japan and abroad. We have also acquired ISO/TS 16949 certification that is requested strongly by major automotive manufacturers as standard.

ISO/TS16949 is the international standard that added the sector-specific supplemental requirements for automotive industry based on ISO9001.

► Explanation of the mark that are using it for the catalog

	► Pb free.
	► 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.)
	► Designed for automotive applications such as Car Multimedia, Body Electronics, Remote Keyless Entry etc.
	► Designed for automotive applications related to driving safety (Engine Control Unit, Air Bag, ESC etc).

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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