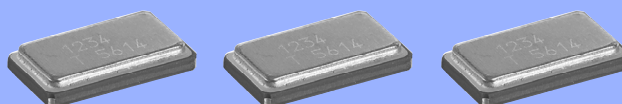


**MHz RANGE CRYSTAL UNIT
LOW PROFILE SMD**

TSX-6035

- Nominal frequency range : 10 MHz to 32 MHz
- Thickness : 1.0mm Max.
- Overtone order : Fundamental
- Applications : Mobile phone, Bluetooth, W-LAN
ISM band radio, Clock for MPU
- Lead(Pb)-free : Lead free completely



Actual size



Specifications (characteristics)

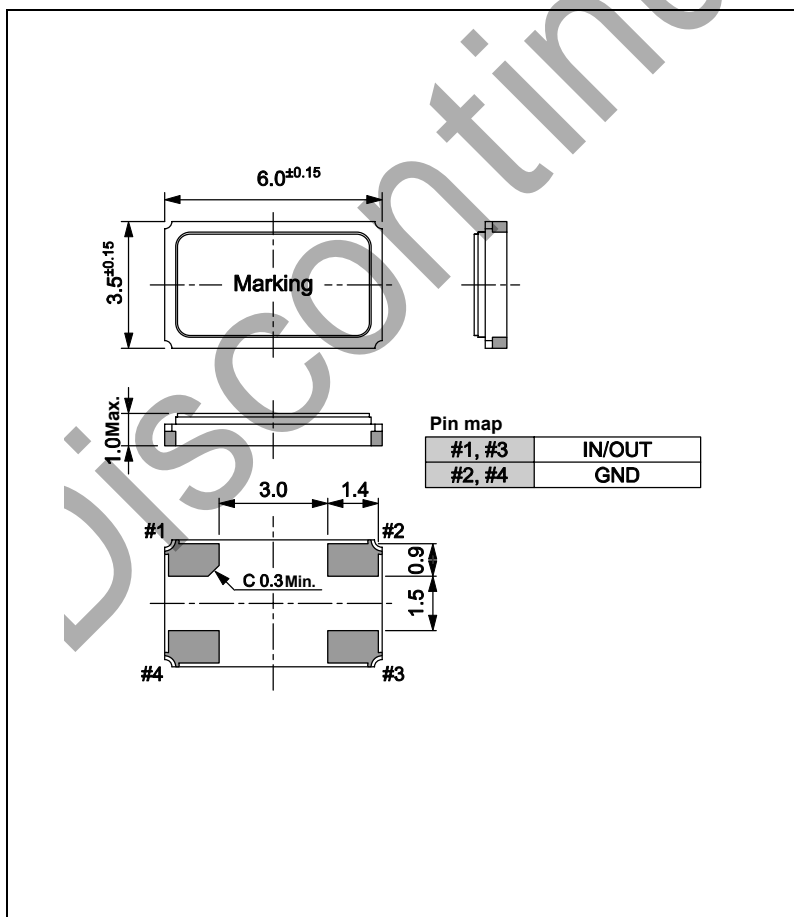
Item	Symbol	Specification	Remarks
Nominal frequency range	f	10.000 MHz to 32.000 MHz	Fundamental
Storage temperature range	T_stg	-40 °C to +85 °C	
Operating temperature range	T_use	-20 °C to +75 °C	
Level of drive	DL	100 μW Max.	
Frequency tolerance (standard)	f_tol	$\pm 10 \times 10^{-6}$	+25 °C
Frequency versus temperature characteristics (standard)	f_tem	$\pm 10 \times 10^{-6}$	-20 °C to +75 °C
Load capacitance	CL	9 pF to ∞ (standard: 9 pF, 12 pF, 16 pF, ∞)	Please specify.
Motional resistance (ESR)	R1	As per below table	-20 °C to +75 °C
Frequency aging	f_age	$\pm 1 \times 10^{-6}$ / year Max.	+25 °C, First year

Motional resistance (ESR)

Frequency	Motional resistance
10.0 MHz ≤ f < 12.0 MHz	60 Ω Max.
12.0 MHz ≤ f ≤ 32.0 MHz	40 Ω Max.

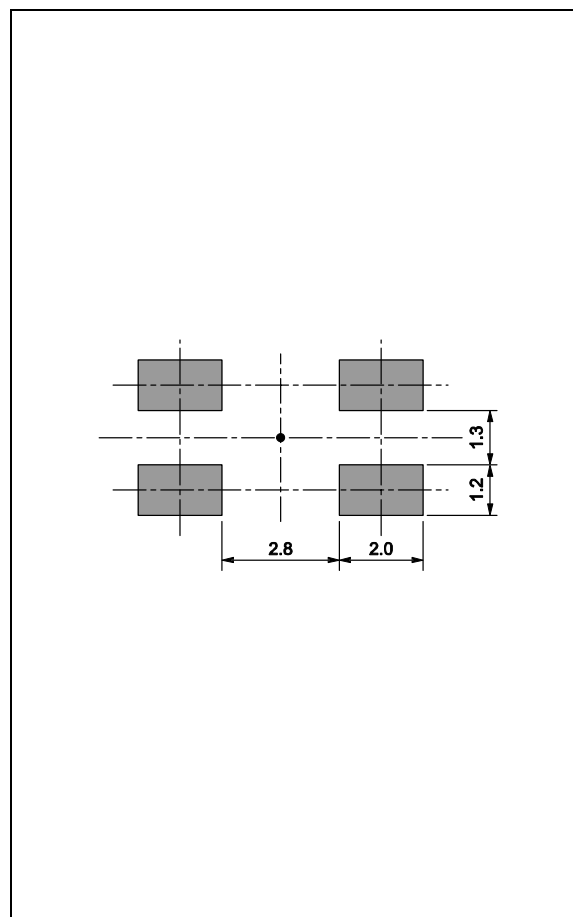
External dimensions

(Unit:mm)



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 IATF 16949 certification that is requested strongly by major automotive manufacturers as standard.

IATF 16949 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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