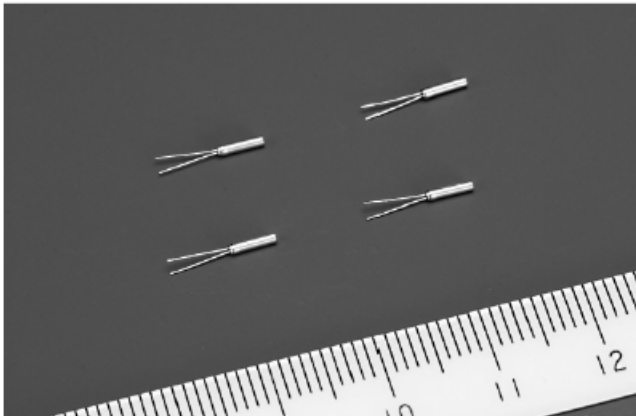


# VT Series(VT-120-F) Quartz Crystal Units for Low Frequencies



## FEATURES

- Compact 1.2φ tubular package.
- Photolithographic process.
- Excellent shock resistance and environmental characteristics.
- RoHS compliant.
- Complete Pb-free.

## APPLICATIONS

- Clock source for Micro-computers, Small/Thin Watches.

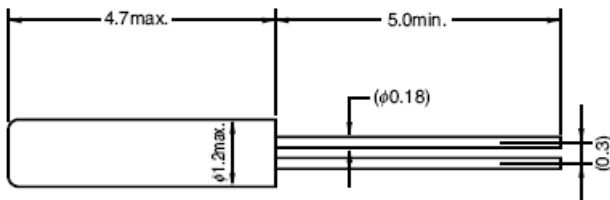
## STANDARD SPECIFICATIONS

Conditions without notice (Temperature: +25±2°C, DL: 0.1μW)

Item	Symbol	Specifications	Conditions / Notes
Nominal Frequency	f <sub>nom</sub>	32.768kHz	
Frequency Tolerance	f <sub>tol</sub>	±20 x 10 <sup>-6</sup> , ±30 x 10 <sup>-6</sup>	
Turnover Temperature	T <sub>i</sub>	+25±5°C	
Parabolic Coefficient	B	(-3.5±1.0) x 10 <sup>-8</sup> /°C <sup>2</sup>	
Load Capacitance	C <sub>L</sub>	6.0 to 12.5pF	
Motional Resistance (ESR)	R <sub>1</sub> typ./max.	37kΩ / 50kΩ	
Absolute Maximum Drive Level	DL <sub>max</sub>	1μW	
Level of Drive	DL	0.1μW	
Shunt Capacitance	C <sub>0</sub>	0.8pF typ.	
Frequency Ageing	f <sub>age</sub>	±3 x 10 <sup>-6</sup>	+25±3°C, First Year
Operating Temperature	T <sub>use</sub>	-20°C to +60°C	
Storage Temperature	T <sub>stg</sub>	-30°C to +70°C	Piece part basis

## DIMENSIONS

VT-120-F



UNIT: mm