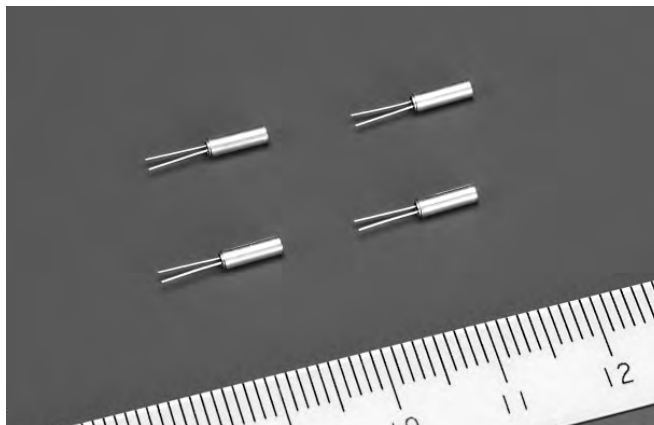


VT-150-F/VT-200-F



FEATURES

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

APPLICATIONS

Real Time Clocks, Timers, Water/Electricity/Gas Meter, Remote-Controllers, Portable Applications

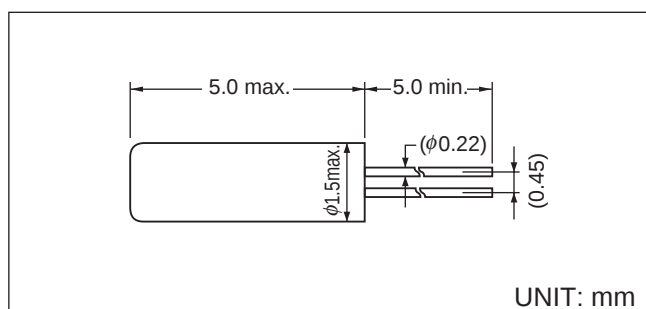
STANDARD SPECIFICATIONS

Conditions without notice (Temperature: $+25\pm 2^{\circ}\text{C}$, DL: $0.1\mu\text{W}$)

Item	Symbol	Specifications	Conditions / Notes
Nominal Frequency	f_nom	32.768kHz	
Frequency Tolerance	f_tol	$(\pm 5 \times 10^{-6})$, $\pm 10 \times 10^{-6}$, $\pm 20 \times 10^{-6}$	
Turnover Temperature	Ti	$+25\pm 5^{\circ}\text{C}$	
Parabolic Coefficient	B	$(-3.5\pm 0.8) \times 10^{-8}/^{\circ}\text{C}^2$	
Load Capacitance	CL	4.5 to 12.5pF	
Motional Resistance (ESR)	R ₁ typ./max.	30k Ω / 50k Ω	
Absolute Maximum Drive Level	DLmax	1 μW	
Level of Drive	DL	0.1 μW	
Shunt Capacitance	C ₀	0.9pF typ.	
Frequency Ageing	f_age	$\pm 5 \times 10^{-6}$	$+25\pm 3^{\circ}\text{C}$, First Year
Operating Temperature	T_use	-10°C to $+60^{\circ}\text{C}$	
Storage Temperature	T_stg	-30°C to $+70^{\circ}\text{C}$	Piece part basis

DIMENSIONS

VT-150-F



VT-200-F

