Low CL Resonator for Low-Power Microcontrollers

VT-200-FL (Cylinder-type low CL resonator for low-power microcontrollers) NE



VT Series

FEATURES

- Consumes one tenth the standby power of general crystal resonators (with a load capacitance of 12.5 pF).
- Excellent low drive level characteristics.
- RoHS directive compliant.
- Complete Pb-free.

APPLICATIONS

- Consumer-electronics products for saving standby energy consumption.
- Battery operated devices requiring a long battery life.

STANDARD SPECIFICATIONS

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

Item	Symbol	Specifications	Conditions / Notes
Nominal Frequency	f_nom	32.768kHz	
Frequency Tolerance	f_tol	±20 x 10 ⁻⁶	
Turnover Temperature	Ti	+25±5°C	
Parabolic Coefficient	В	(-3.5±0.8) x 10 ⁻⁸ /°C ²	
Load Capacitance	CL	3.7pF, 4.4pF, 6.0pF	
Motional Resistance (ESR)	R1	$50 k\Omega$ max.	
Absolute Maximum Drive Level	DLmax.	1μW	
Level of Drive	DL	0.01µW	
Shunt Capacitance	Co	0.9pF typ.	
Frequency Ageing	f_age	±3 x 10 ⁻⁶	+25±3°C, First Year
Operating Temperature	T_use	-40°C to +85°C	
Storage Temperature	T_stg	-40°C to +85°C	Piece part basis

■ VT-200-FL (Cylinder-type low CL resonator for low-power microcontrollers)

The VT-200-FL is a cylinder-type resonator specially developed and released for ultra-low-power microcontrollers. Through collaboration with major microcontroller manufacturers, we achieved low power consumption. Please visit the SII website (www.sii-crystal.com) for finding microcontrollers for VT-200-FL.

CAUTION

The VT-200-FL is designed for use in ultra-low-power microcontrollers. Do not use this resonator in regular microcontrollers as it might cause problems with oscillation.