Tuning Fork Crystal Resonators (kHz Crystal Resonators)

DT-38, DT-381, DT-26, DT-261



Tuning fork crystal resonator are suitable for wrist watches, watch function of consumer/home electronic appliances and many other equipment. The product features low power consumption.

Features

- Cylinder shaped tuning fork crystal resonator
- Available in tape and reel form (DT-38, DT-381)

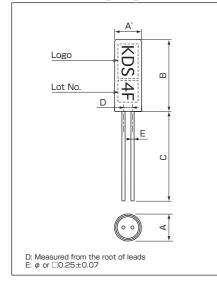
Standard Specification

Frequency Range 32.768kHz 15~150kHz 32.768kHz 28~80kHz Load Capacitance	Item Type	DT-38	DT-381	DT-26	DT-261			
Drive Level $1.0\pm 0.2\mu$ WFrequency ToleranceGRADE A±20×10 ⁶ (at25°C) GRADE B±30×10 ⁶ (at25°C) $\%2$ GRADE A±20×10 ⁶ (at25°C) GRADE B±30×10 ⁶ (at25°C) $\%2$ Series Resistance30k Ω max. $\%2$ 40k Ω max. $\%2$ Parabolic Temperature $+25^\circ$ C±5°C $\%2$ $+25^\circ$ C±5°C $\%2$ Two Dimensional Temperature Constant -0.04×10^{-6} /°C² max. $-10 \sim +60^\circ$ COperating Temperature Range $-10 \sim +70^\circ$ C $-20 \sim +70^\circ$ C	Frequency Range	32.768kHz	15~150kHz	32.768kHz	28~80kHz			
Frequency ToleranceGRADE $A \pm 20 \times 10^6 (at25^\circ)$ (GRADE $B \pm 30 \times 10^6 (at25^\circ)$) $\%2$ GRADE $A \pm 20 \times 10^6 (at25^\circ)$ (GRADE $B \pm 30 \times 10^6 (at25^\circ)$) $\%2$ Series Resistance $30k\Omega$ max. $\%2$ $40k\Omega$ max. $\%2$ Parabolic Temperature $+25^\circ C \pm 5^\circ C$ $\%2$ $+25^\circ C \pm 5^\circ C$ $\%2$ Two Dimensional Temperature Constant $-0.04 \times 10^{-6} / ^{\circ}C^2 max.$ $-10 \sim +60^\circ C$ Operating Temperature Range $-10 \sim +70^\circ C$ $-20 \sim +70^\circ C$	Load Capacitance	12.5pF %1						
Frequency ToleranceGRADE $B \pm 30 \times 10^6 (at25^\circ)$ $\ensuremath{\mathbb{K}}^2$ GRADE $B \pm 30 \times 10^6 (at25^\circ)$ $\ensuremath{\mathbb{K}}^2$ Series Resistance $30k\Omega$ max. $\ensuremath{\mathbb{K}}^2$ $40k\Omega$ max. $\ensuremath{\mathbb{K}}^2$ Parabolic Temperature $+25^\circ C \pm 5^\circ C$ $\ensuremath{\mathbb{K}}^2$ $+25^\circ C \pm 5^\circ C$ $\ensuremath{\mathbb{K}}^2$ Two Dimensional Temperature Constant $-0.04 \times 10^6 / \ensuremath{^\circ}^2 \ensuremath{^\circ}^2 \ensuremath{max}$. $-10 \sim +60^\circ C$ Operating Temperature Range $-10 \sim +60^\circ C$ $-20 \sim +70^\circ C$	Drive Level	1.0±0.2µW						
Parabolic Temperature +25℃±5℃ %2 +25℃±5℃ %2 Two Dimensional Temperature Constant -0.04×10 ⁶ / ℃ ² max. Operating Temperature Range -10~+60℃ Storage Temperature Range -20~+70℃	Frequency Tolerance		*2		*2			
Two Dimensional Temperature Constant -0.04×10 ⁻⁶ /°C ² max. Operating Temperature Range -10~+60°C Storage Temperature Range -20~+70°C	Series Resistance	30kΩ max.	*2	40kΩ max.	*2			
Operating Temperature Range -10~+60°C Storage Temperature Range -20~+70°C	Parabolic Temperature	+25℃±5℃	*2	+25℃±5℃	*2			
Storage Temperature Range -20~+70°C	Two Dimensional Temperature Constant	−0.04×10 ⁻⁶ /°C ² max.						
	Operating Temperature Range	-10~+60°C						
	Storage Temperature Range	-20~+70°C						
Shunt Capacitance1.3pF Typ.%21.1pF Typ.%2	Shunt Capacitance	1.3pF Typ.	*2	1.1pF Typ.	*2			

Dimensions[mm]

Туре	Α'	А	В	С	D	E
DT-38, DT-381	φ3.0	¢3.0 ^{+0.1} -0.2	8.0+0.3	10.0±1.0	1.1±0.2	φ0.35±0.07
DT-26, DT-261	φ2.0	φ2.0 ^{+0.1} -0.2	6.0 ^{+0.1}	7.5±1.0	0.7±0.2	φ0.28±0.05

Dimensions[mm]



Load Capacitance Characteristics (Typical examples)

