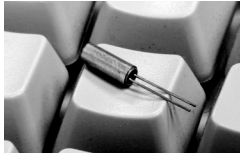
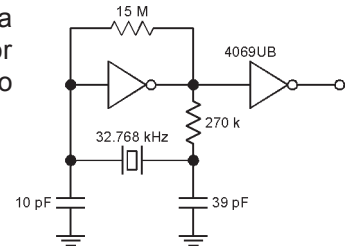


MMCC-1, MMCC-2, and MMCC-3 Tuning Fork Crystals

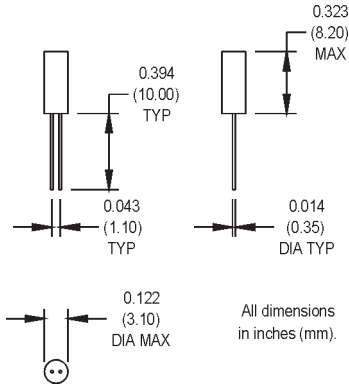


Precision 32.768 kHz quartz crystals for realtime applications

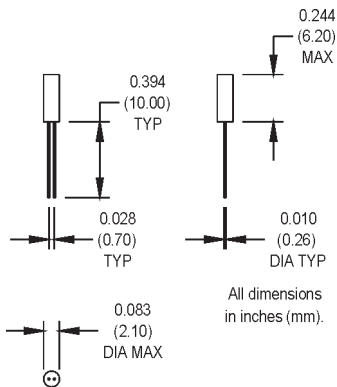
The majority of applications use a 32.768 kHz crystal in an oscillator circuit incorporating binary division to produce a 1 Hz output.



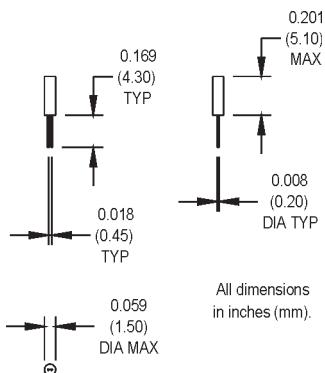
*MMCC-1-R



*MMCC-2-R



*MMCC-3-R

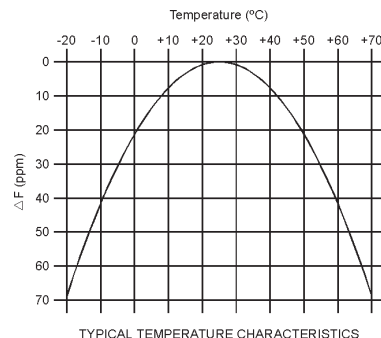


Electrical/Environmental Specifications

	PARAMETERS	VALUE	
Electrical Specifications	Frequency	32.768 kHz	
	Tolerance @ +25°C	±30 ppm	
	Aging	±3 ppm/yr. Max.	
	Shunt Capacitance	MMCC-1	1.60 pF, Typical
		MMCC-2	1.35 pF, Typical
		MMCC-3	1 pF, Typical
	Load Capacitance	MMCC-1/MMCC-2	12.5 pF, Typical
		MMCC-3	8.0 pF, Typical
	Standard Operating Conditions	See Table 1	
	Storage Temperature	-40°C to +85°C	
	Equivalent Series Resistance (ESR), Max.	MMCC-1/MMCC-2	35 Kohms
		MMCC-3	40 Kohms
		Resonance	Parallel
	Quality Factor	70,000 Min.	
	Turnover Temperature	+25°C to ±5°C	
Parabolic Curvature Constant	-0.034 ppm/°C ² , Typical		
Drive Level	1.0 i W Max.		
Environmental	Holder	Compression seal	
	Mechanical Shock	MIL-STD-202, Method 213, C	
	Vibration	MIL-STD-202, Method 201 & 204	
	Thermal Cycle	MIL-STD-883, Method 1010, B	
	Maximum Wave Soldering Conditions	+260°C for 10 secs.	

* Series resonant designated by "SR" prefix (i.e., SRMMCC-1).
Use MtronPTI part number 374-005 for ±20 ppm tolerance (MMCC-1).
Use MtronPTI part number 375-05A for ±20 ppm tolerance (MMCC-2).
Contact the factory for specifications not listed.

Table 1



MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.