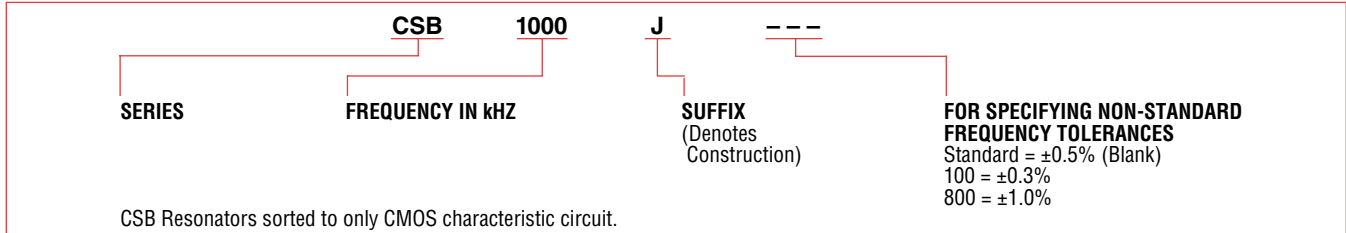


The CSB Series of ceramic resonators is designed to provide the design engineer with a rugged, relatively low frequency device in the frequency range of 375kHz to 1,250kHz. Initial frequency tolerance is $\pm 0.5\%$ which

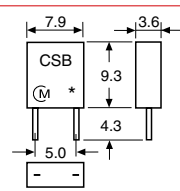
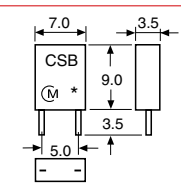
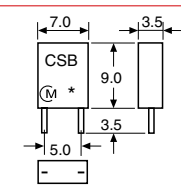
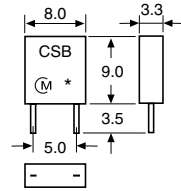
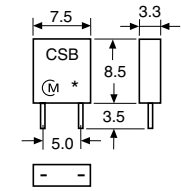
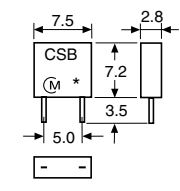
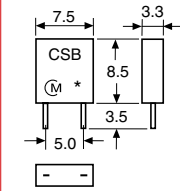
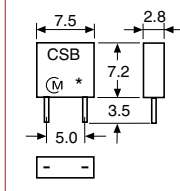
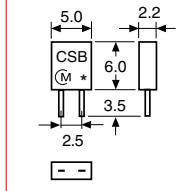
compares very favorably to the nominal $\pm 2\%$ - 3% requirements of one chip microprocessors. The CSB Series utilizes the area vibration mode of the piezoelectric ceramic element.

PART NUMBERING SYSTEM



CSB SERIES: 375kHz – 1250kHz

DIMENSIONS: mm

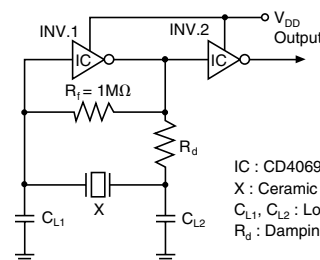
NON-WASHABLE							
Frequency	375 – 429kHz	430 – 509kHz			510 – 699kHz		
Series	CSB□□□P	CSB□□□E			CSB□□□P		
Dimensions							
	* : EIA-J Date Code		* : EIA-J Date Code		* : EIA-J Date Code		
WASHABLE							
Frequency	375 – 429kHz	430 – 519kHz	520 – 589kHz	590 – 655kHz	656 – 699kHz	700 – 1250kHz	
Series	CSB□□□J	CSB□□□J	CSB□□□J	CSB□□□JR	CSB□□□J	CSB□□□J	
Washability	Washable ¹	Washable ¹	Washable ¹	Washable ¹	Washable ¹	Washable ¹	
Dimensions							

¹The resonators are washable. However, temperature, time and other processing conditions should be checked to ensure that suitable electrical characteristics are maintained.

SPECIFICATIONS

Frequency Range (kHz)	375 to 1,250	375 to 699
Frequency Tolerance	$\pm 0.5\%$	$\pm 2.0\text{kHz}$
Temperature Stability (-20°C to $+80^{\circ}\text{C}$)	$\pm 0.3\%$	$\pm 0.3\%$
Aging (room temp., 10 years)	$\pm 0.3\%$	$\pm 0.3\%$

Standard Test Circuit



IC : CD4069UBE (RCA)
 X : Ceramic Resonator
 C_{L1} , C_{L2} : Loading Capacitance
 R_d : Damping Resistance