

# AT-CUT CRYSTAL RESONATORS

## THHF-26 / THHF-38 / THHF-39 / THHF-310



### FEATURES

AT-cut crystal performance  
Ideal for Microprocessor Applications



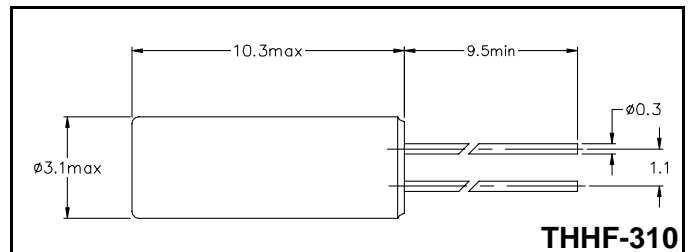
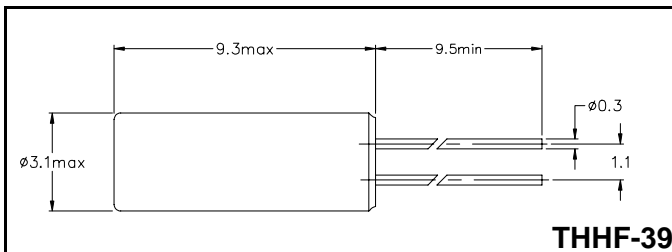
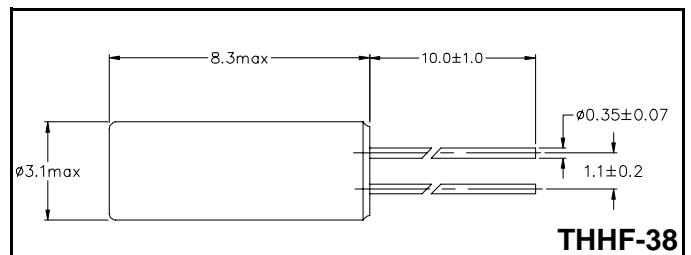
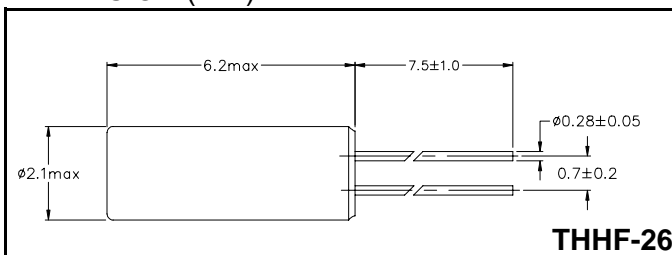
Item		THHF-26	THHF-38	THHF-39	THHF-310
Nominal Frequency Range	$f_0$	6.0 ~ 48.0MHz	6.0 ~ 48.0MHz	4.0~6.0MHz	3.579 ~ 4.0MHz
Frequency Tolerance, $T_a=25^\circ\text{C} \pm 3^\circ\text{C}$	$\Delta f/f$	±30ppm			
Load Capacitance	$C_L$	18pF, or customer specify			
Frequency Tolerance over Operating Temperature Range	$\Delta f/f$	±30ppm			
Operating Temperature Range	$T_{OPR}$	-10°C to 70°C			
Storage Temperature Range	$T_{STG}$	-40°C to 85°C			
Drive Level	DL	0.1mW (1mW Max.)			
Shunt Capacitance	$C_0$	7pF Max.			
Insulation Resistance	IR	500MΩ Min.			
Aging	$\Delta f_A$	±5ppm/Year Max.			

### SERIES RESISTANCE (ESR)

Frequency Range	3.579 < $f_0$ 6.0	6.0 < $f_0$ 12.0	12.0 < $f_0$ 20.0	20.0 < $f_0$ 36.0	36.0 < $f_0$ 48.0 (3rd overtone)
ESR	150Ω Max.	100Ω Max.	70Ω Max.	50Ω Max.	80Ω Max.

Please consult our sales representatives for other specifications.

### DIMENSION (mm)



All specifications are subject to change without notice.