

# SURFACE MOUNT QUARTZ CRYSTAL RESONATORS

## SMHF-49A



### FEATURES

- AT-cut crystal performance
- Pick & place assembly
- Standard and moderate precision available



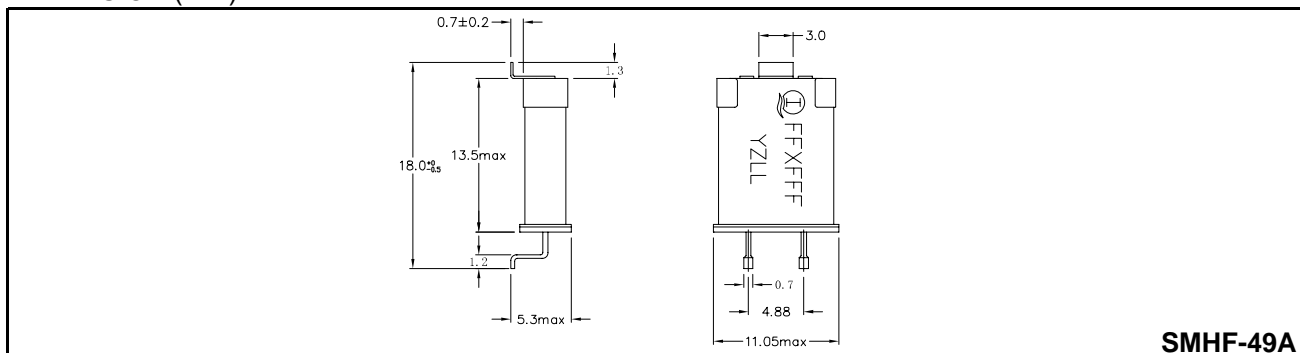
Item		Specifications
Nominal Frequency Range	$f_0$	1.8432MHz ~ 40.0MHz (Fundamental)
		40.0MHz ~ 125.0MHz (3rd Overtone)
Frequency Tolerance, $T_a=25^\circ\text{C} \pm 3^\circ\text{C}$	$\Delta f/f$	$\pm 30\text{ppm}$
Load Capacitance	$C_L$	18pF, or customer specify
Frequency Tolerance over Operating Temperature Range	$\Delta f/f$	$\pm 30\text{ppm}$
Operating Temperature Range	$T_{\text{OPR}}$	$-10^\circ\text{C}$ to $70^\circ\text{C}$
Storage Temperature Range	$T_{\text{STG}}$	$-40^\circ\text{C}$ to $85^\circ\text{C}$
Drive Level	DL	0.1mW (1mW Max.)
Shunt Capacitance	$C_0$	7pF Max.
Insulation Resistance	IR	500M $\Omega$ Min.
Aging	$\Delta f_A$	$\pm 5\text{ppm/Year}$ Max.

SERIES RESISTANCE (ESR)							
Frequency Range	1.8432< $f_0$ 2.3	2.3< $f_0$ 3.0	3.0< $f_0$ 3.5	3.5< $f_0$ 4.5	4.5< $f_0$ 7.0	7.0< $f_0$ 15.0	
ESR	450 $\Omega$ Max.	300 $\Omega$ Max.	150 $\Omega$ Max.	90 $\Omega$ Max.	70 $\Omega$ Max.	40 $\Omega$ Max.	

Frequency Range	15.0< $f_0$ 40.0	40.0< $f_0$ 75.0 (3.O.T)	75.0< $f_0$ 100.0 (3.O.T)	100.0< $f_0$ 125.0 (3.O.T)
ESR	30 $\Omega$ Max.	40 $\Omega$ Max.	35 $\Omega$ Max.	30 $\Omega$ Max.

Please consult our sales representatives for other specifications

### DIMENSION (mm)



**SMHF-49A**

All specifications are subject to change without notice.



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