

**SAW Resonator 433.920MHz**

**Model: TC0170A**

**Part No: MP06925**

**REV NO.: 6**

**A. FEATURES:**

- 1-Port Resonator.

**B. MAXIMUM RATING:**

- 1.Input Power Level: 0 dBm
- 2.DC voltage: 12 V
- 3.Operating Temperature: -40°C to +85°C
- 4.Storage Temperature: -40°C to +85°C

**C. ELECTRICAL CHARACTERISTICS:**

Reference Temperature  $T_A=25^{\circ}\text{C}$

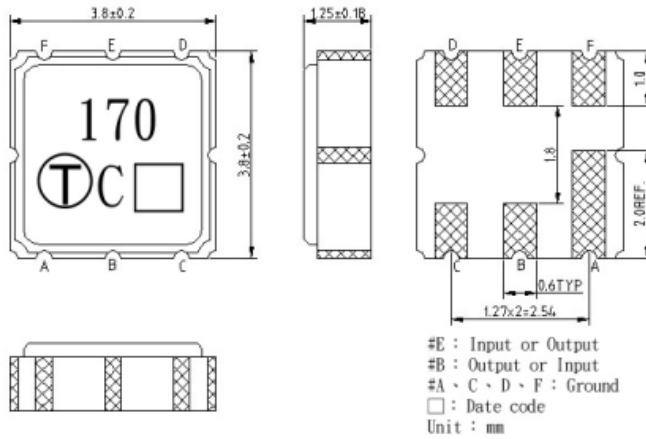
Characteristic	Units	Minimum	Typical	Maximum
Center frequency $f_c$	MHz	433.845	433.920	433.995
Insertion Loss IL	dB	-	1.6	2.5
Unload quality factor $Q_U$		6000	12000	-
Ageing of $f_c$	ppm/yr	-	-	$\pm 10$
Motional capacitance C1	fF	-	1.26	-
Motional inductance L1	$\mu\text{H}$	-	98.8	-
Motional resistance R1	Ohm	-	22.2	-
Parallel capacitance $C_o$	pF	-	2.63	-
Frequency Temperature coefficient ( $TC_f$ )	ppm/ $^{\circ}\text{C}^2$	-	0.032	-
Turnover $T_o$	$^{\circ}\text{C}$	10	25	40
Package size		SMD 3.8X3.8X1.2 mm		

Temperature dependence of  $f_c$ :  $f_c(T_A)=f_c(T_O)(1+TC_f(T_A-T_O)^2)$

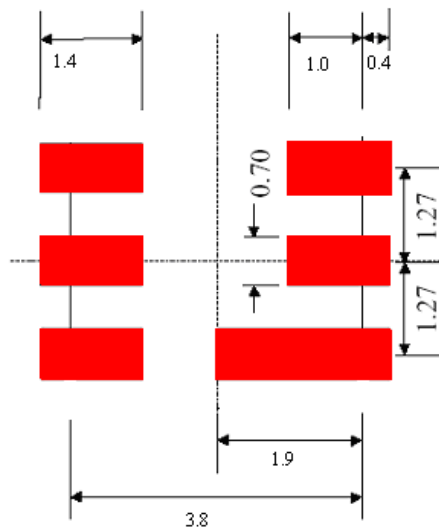
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**D. OUTLINE DRAWING:**

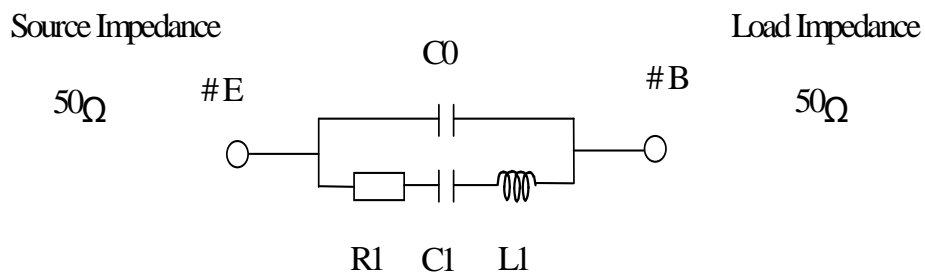


**E. PCB Foot Print:**



**F. EQUIVALENT CIRCUIT:**

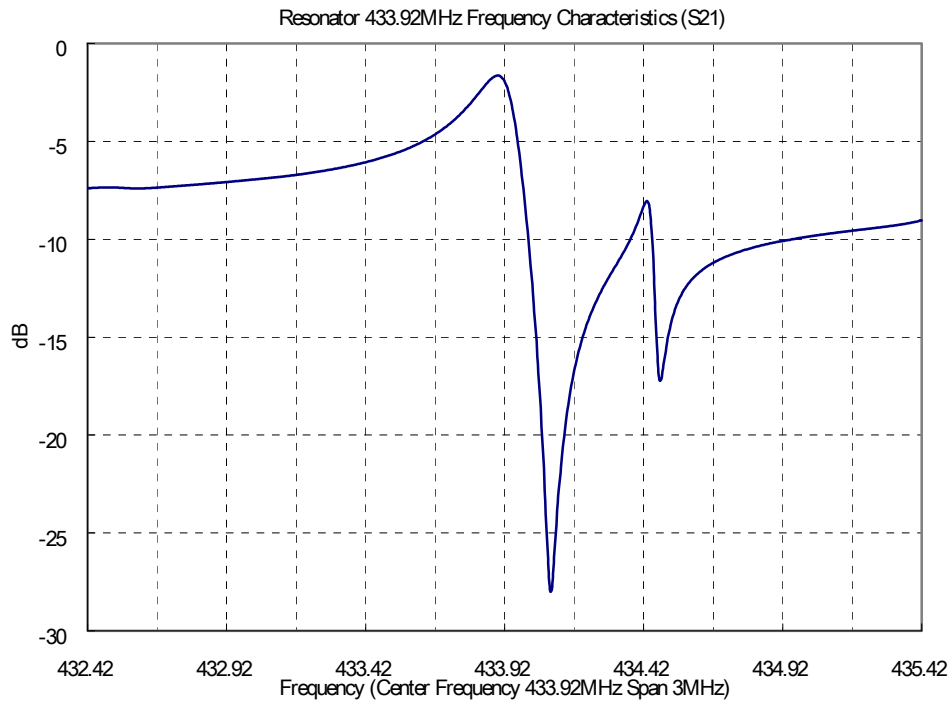
One-Port Resonator:



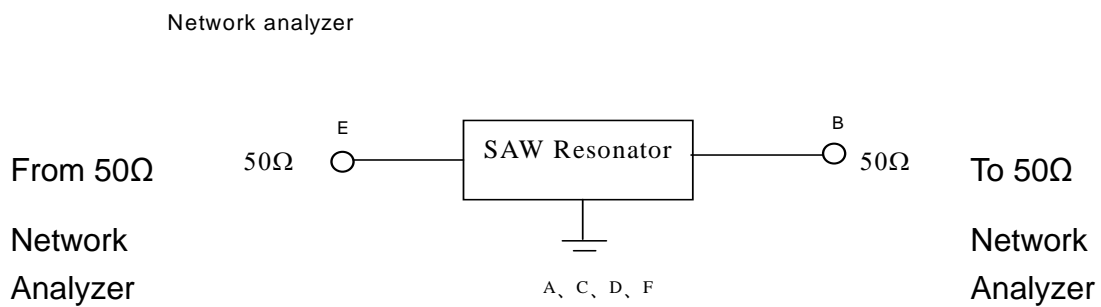
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**G. FREQUENCY CHARACTERISTICS:**



**H. TEST CIRCUIT:**

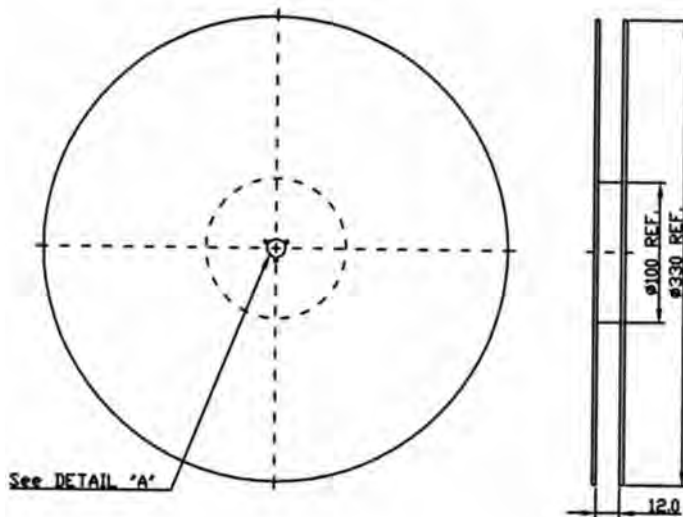


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**I. PACKING:**

1. REEL DIMENSION



2. TAPE DIMENSION

