

Surface Mounted Filter

FT0905 Series

Introduction

- Rated current: 0.3~2.8A
- Inductance: 10~6500uH
- Customer specific versions available upon request



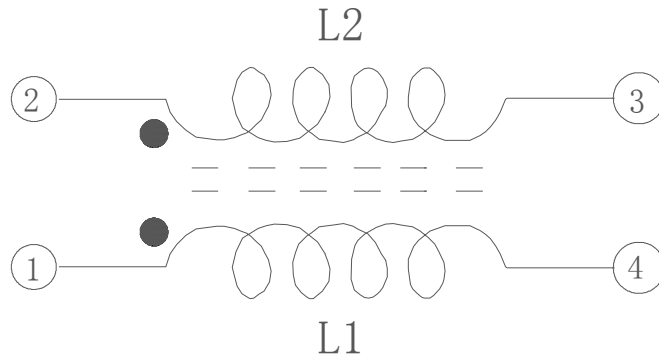
Features and Benefits

- Effectively suppress the interference at broad frequency range from 100KHz to 300KHz.
- Narrow transition band, high insertion loss, good filtering performance at high frequency.
- Very low profile, excellent performance, fast and easy installation.

Typical Applications

-  Suitable for high frequency digital circuit, video, DSP, etc.

Electrical Schematics



FT0905

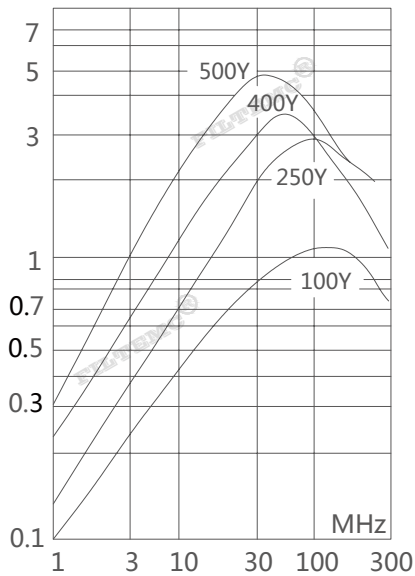
Tabulates

Part No.	Inductance(uH) @1MHz	Leakage Ind. Max(uH)	DCR Max(Ω)	Rated Voltage (VDC)	Rated Current (A)	Impedance	
						Freq. Range (MHz)	Value Min(Ω)
FT0905-100Y	10±30 %	8	0.08	100	2.8	20~300	200
FT0905-250Y	25±30 %	16	0.16	100	1.6	20~150	600
FT0905-400Y	40±30 %	18	0.25	100	0.9	20~100	800
FT0905-500Y	50±30 %	22	0.32	100	0.8	20~100	1500
FT0905-141Y	140±50 %	2.0	0.24	100	1.2	3~20	800
FT0905-251Y	250±50 %	0.11	0.13	100	1.2	3~20	600
FT0905-471Y	470±50 %	0.12	0.14	100	1.1	2~20	1000

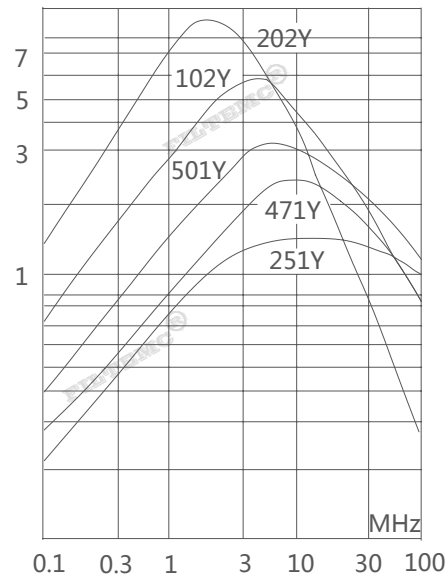
Part No.	Inductance(uH) @1MHz	Leakage Ind. Max(uH)	DCR Max(Ω)	Rated Voltage (VDC)	Rated Current (A)	Impedance	
						Freq.Range (MHz)	Value Min(Ω)
FT0905-501Y	500±50 %	0.12	0.15	100	1.0	1~20	1000
FT0905-102Y	1000±50 %	0.17	0.31	100	0.8	1~15	1500
FT0905-202Y	2000±50 %	0.25	0.42	100	0.6	1~5	3000
FT0905-302Y	3000±50 %	0.30	0.52	100	0.6	0.3~3	3500
FT0905-472Y	4700±50 %	0.36	0.9	100	0.4	0.3~3	4000
FT0905-652Y	6500±50 %	0.39	1.05	100	0.3	0.3~2	5000

Frequency Characteristic Curve

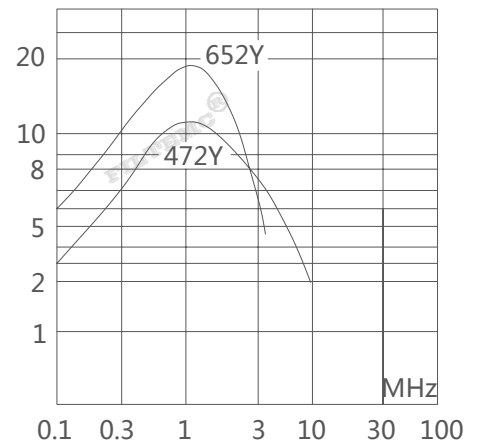
Resistance (KΩ)



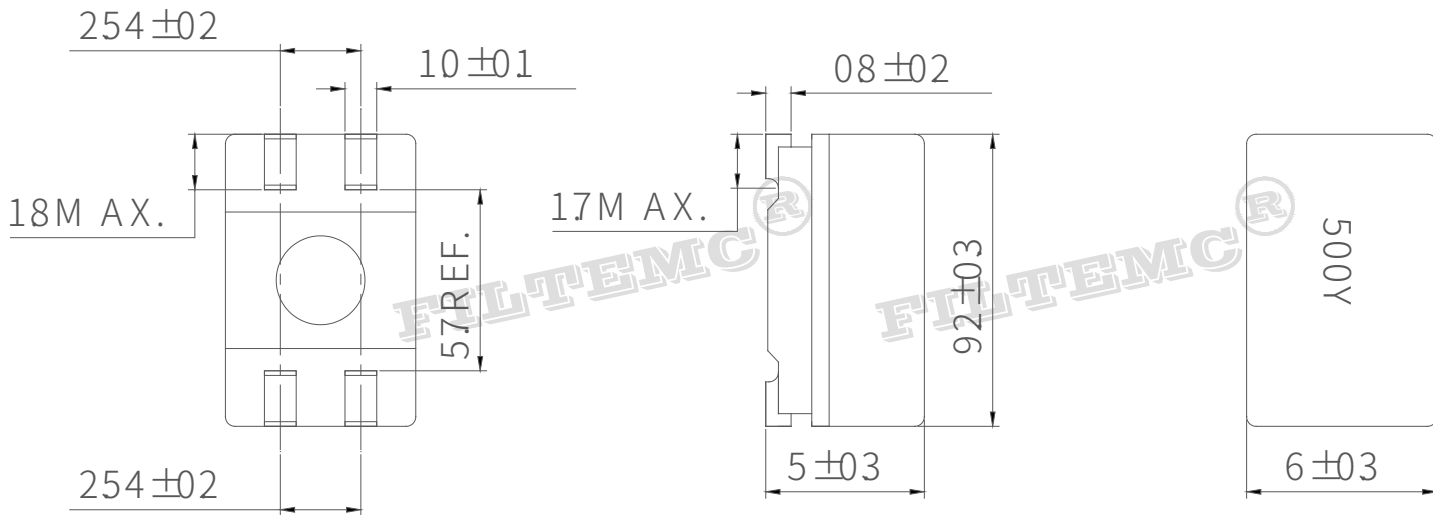
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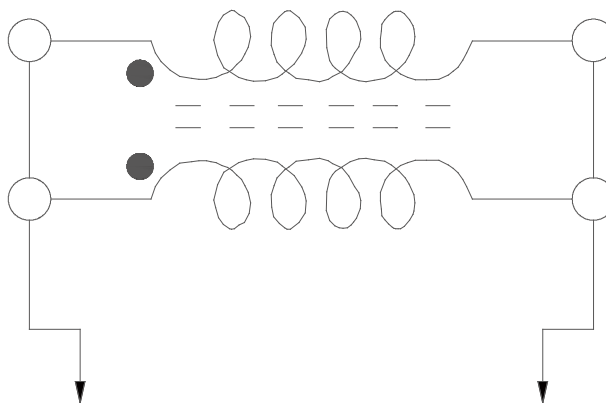


Outline Drawing and Dimensions (mm)



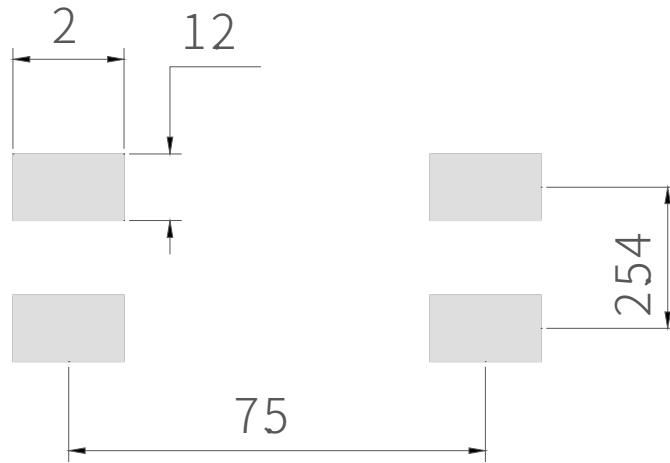
FT0905-501Y

Measuring Circuit

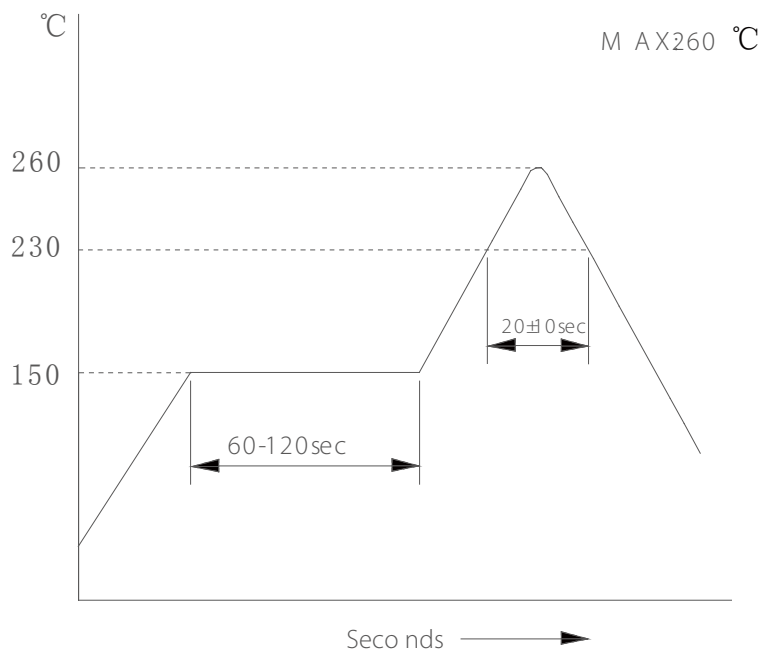


RF Impedance Analyzer

Recommended Pad Layout (mm)



Recommended Temperature Conditions of Air Reflow Soldering



Reliability Specifications

Test Items	Test Conditions	Specifications
Vibration	Only endurance conditioning by a frequency sweep shall be made. The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be transversed in 1 min. Amplitude (total excursion): 1.5mm. This motion shall be applied for a period of 2 hrs in e.	Frequency: Relative to the value before test $\pm 0.9\%$ Tuning Inductance: Relative to the value before test $\pm 1.8\%$ Appearance: Without distinct change.
Shock	Pulse shape: Half sine Peak acceleration: 981 m/s ² (100G) Duration of the pulse: 6 ms Three successive shocks shall be applied in both directions of 3 mutually perpendicular axis (a total of 18 shocks).	Frequency: Relative to the value before test $\pm 0.9\%$ Tuning Inductance: Relative to the value before test $\pm 1.8\%$ Appearance: Without distinct change.
Cold	The coil shall be stored at a temperature of $-20^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for 2 hrs. And then the coil shall be subjected to standard atmospheric conditions for 1 hr, after which measurement shall be made. The measurement shall be made within 1 hr after the recovery period.	Frequency: Relative to the value before test $\pm 0.9\%$ Tuning Inductance: Relative to the value before test $\pm 1.8\%$ Appearance: Without distinct change.
Dry Heat	The coil shall be stored at a temperature of $80^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 2 hrs. and then the coil shall be subjected to standard atmospheric conditions for 1 hr, after which measurement shall be made. The measurement shall be made within 1 hr after the recovery period.	Frequency: Relative to the value before test $\pm 0.9\%$ Tuning Inductance: Relative to the value before test $\pm 1.8\%$ Appearance: Without distinct change.
Thermal Shock	Initial data measurement: Data are made after the pins of coil are solder-dipped at $270^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5 sec. ± 1 sec. and leaving it in the room temperature for 1 hr. Thermal shock test cycle: -20°C for 1 hr to 80°C for 1 hr are made 1 cycle. First data are made after 10 cycles and leaving it in the room temperature for 1 hr. Second data are made after another additional 10 cycles and leaving it in the room temperature for 1 hr. Which are repeated. Note: On the PCB testing	Frequency: Relative to the value before test $\pm 0.9\%$ Tuning Inductance: Relative to the value before test $\pm 1.8\%$ Appearance: Without distinct change.

Service and Support

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