



# SF0903, 0904 SERIES

## SMD Line Filter

### FEATURES

- Low profile very effective in space conscious applications
- Low resistance filters have been designed for excellent electrical isolation
- High quality toroidal core
- Wide frequency range over 1000MHz
- Lead free construction

### OPTIONS

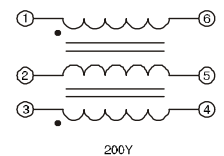
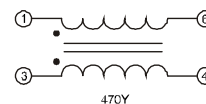
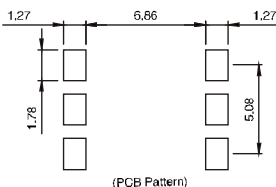
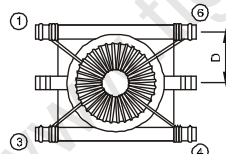
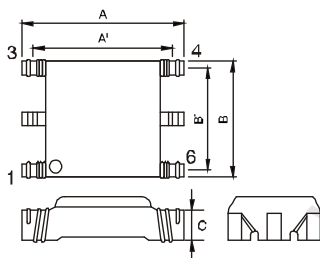
- Tape & Reel is Standard (Qty:1500pcs)
- Bulk packaging Available

### APPLICATIONS

- Provide common mode noise attenuation
- Reduce conducted noise
- For the suppression of EMI in data lines and signal lines, e.g., CAN Bus

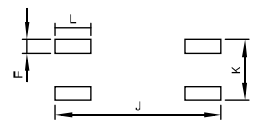
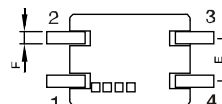
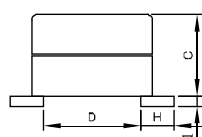
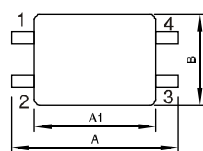
| Part Number   | (L μH)<br>100K / 0.1V | L-L (μH)<br>100K / 0.02V | C (pF)<br>100K / 0.02V | DCR (Ohm)<br>max. | Turns Ratio | Insertion Loss |                  | Impedance (Z) |        |
|---------------|-----------------------|--------------------------|------------------------|-------------------|-------------|----------------|------------------|---------------|--------|
|               |                       |                          |                        |                   |             | Freq.          | db               | Freq.rang     | min(Q) |
| <b>SF0903</b> |                       |                          |                        |                   |             |                |                  |               |        |
| 470YAB        | 47.0 min.             | 0.18 <sup>+0</sup>       | 20 <sup>+0</sup>       | 0.4               | 1:1         | 1-100MHz       | 20 <sup>-0</sup> | 10-30MHz      | 1000   |
| 200YAB        | 20.0 min.             | 0.10 <sup>+0</sup>       | 18 <sup>+0</sup>       | 0.4               | 1:1:1       | 30-300MHz      | 20 <sup>-0</sup> | 30-100MHz     | 800    |

| Part Number   | L(1-4) @100KHz, 0.1Vrms (μH) | L-L(1-4) @100KHz,0.1Vrms typ.(2-3 short) max. | DCR (winding) (Ohm) max. | Rated Current Max. | Winding |
|---------------|------------------------------|---|--------------------------|--------------------|---------|
| <b>SF0904</b> |                              |   |                          |                    |         |
| 110YL         | 11 ±25%                      | 0.050 (μH)                                    | 0.120                    | 0.50 A             | Bifilar |
| 250YL         | 25 ± 25%                     | 1.500 (μH)                                    | 0.200                    | 0.50 A             | Bifilar |
| 510YL         | 51 ±25%                      | 2.000 (μH)                                    | 0.300                    | 0.50 A             | Bifilar |
| 471YL         | 470 ± 25%                    | 0.280 (μH)                                    | 0.280                    | 0.50 A             | Bifilar |
| 102YL         | 1000 ± 25%                   | 0.290 (μH)                                    | 0.400                    | 0.50 A             | Bifilar |
| 472YL         | 4700 ± 25%                   | 0.300 (μH)                                    | 0.700                    | 0.20 A             | Bifilar |



SF 0903-A SERIES

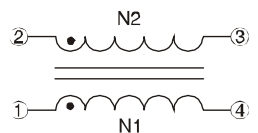
- Materials:
  1. Core: Ferrite Toroidal Core(0903-A), Ferrite Core(0904)
  2. Wire: Enamelled Copper Wire(Class F)
  3. Base: Phenolic(0903-A), PPHS(UL940V-0)(0904)
  4. Terminal: Cu / Ni / Sn (0904)
  5. Adhesive: Epoxy Resin (0904)
  6. Case: PPHS(UL940V-0)(0904)
- General Specification:
  1. Storage Temperature:
    - 40°C - +105°C (0903-A)
    - 40°C - + 135°C (0904)
  2. Operation Temperature:
    - 25°C - + 85°C (0903-A)
    - 40°C - + 135°C (0904)
  3. Temperature Rise Included:
    - 30°C max at Rated Current (0904)
  4. Resistance to solder heat:
    - 260°C, 10 secs.



SF 0904 SERIES

### Dimensions(mm)

| Series | A        | A1        | B        | B1        | C        | D         |
|--------|----------|-----------|----------|-----------|----------|-----------|
| SF0903 | 9.20max. | 7.24 typ. | 6.60 max | 5.08 typ. | 2.50 max | 2.54 typ. |



“•”: Polarity

Note:  
All specifications subject to change without notice.

| Series  | A1         | A        | B          | C          | D         | E         | F         | H         | I         | J         | K         | L         | M         |
|---------|------------|----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| SF0904L | 9.20 ± 0.3 | 7.1 typ. | 6.00 ± 0.3 | 5.00 ± 0.3 | 5.32 typ. | 2.49 typ. | 0.60 typ. | 1.92 typ. | 0.25 typ. | 9.60 ref. | 3.40 ref. | 2.20 ref. | 1.00 ref. |