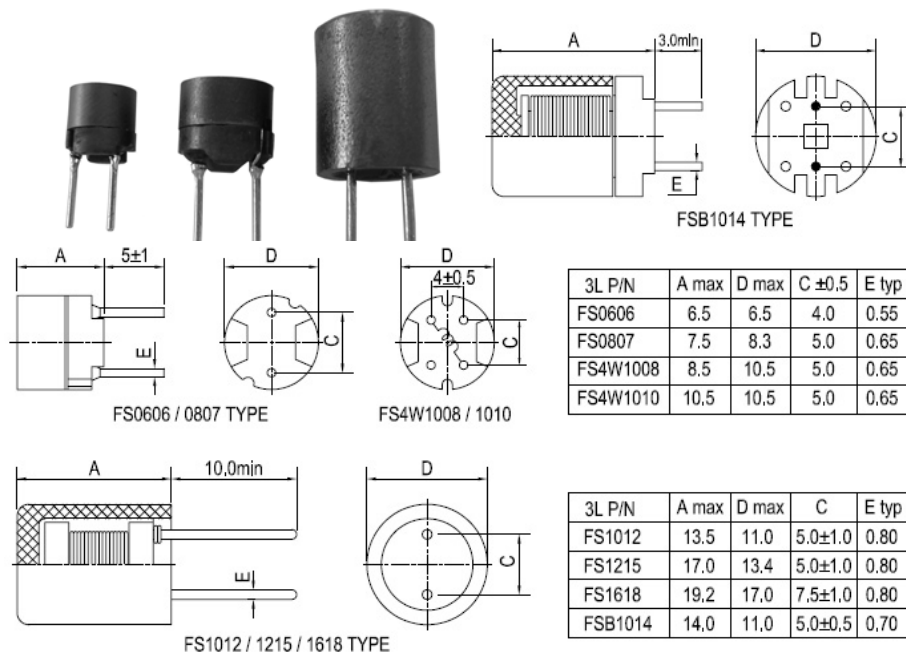


Shape and size : (Dimensions are in mm)

Features :

- Vertical structure, small, lightweight design.
- No inductive interference.
- FS0606/ 0807/ 1008/ 1010/ 1215/ 1618 are high power inductors.
- FS1012/ FSB1014 are excellent Q frequency characteristics and high self-resonant frequency.
- FS0606 / 0807 / 1012 can be taped for auto insertion.

Ordering information :
FS 1012 - 223 K - TF

- (1) (2) (3) (4) (5)
- (1) Type : **Ferrite Shielded** .
- (2) Style : Core **OD=10mm ; L=12mm** .
- (3) Inductance : "**223**" for **22** mH .
- (4) Tolerance : **K** : ±10% ; **L** : ± 15% ; **M** : ± 20% .
- (5) Packing : "**TF**" : Tape ; No code: Bulk.

Inductance and rated current ranges :

| | | |
|------------|---------------|----------------|
| • FS0606 | 22uH ~ 1.0mH | 960mA ~ 140mA |
| • FS0807 | 22uH ~ 10 mH | 1.6 A ~ 74mA |
| • FS1012 | 1.2mH ~ 1.2 H | 200mA ~ 8.4mA |
| • FS1215 | 10uH ~ 2.2 mH | 3.61 A ~ 180mA |
| • FS1618 | 10uH ~ 1.0m H | 5.2mA ~ 750mA |
| • FS4W1008 | 10uH ~ 1.0mH | 2.8 A ~ 280mA |
| • FS4W1010 | 10uH ~ 1.0mH | 3.51A ~ 350mA |
| • FSB1014 | 1.0mH ~ 120mH | 270mA ~ 20mA |

Characteristics :

- Rated DC Current: The current when the inductance becomes 10% lower than its initial value. (Ta=20°C) (FS0606/0807/1008/1010/1215/1618)
- The current when temperature of coil increases up to Max. ΔT=20°C. (Ta=20°C) (FS1012/FSB1014)
- Operating temperature : -20 °C to 80 °C .

Test equipments and test setup :

- L&Q: HP4285A or HP4284A precision LCR meter.
- DCR : Milli-ohm meter .
- Electrical specifications at 25°C .

Applications :

- Video cameras .
- Portable VCRs .
- Audio equipments .
- Other circuits of consideration against radiation

| Part No. | L (uH) | L Test Freq. | DC Resistance (Ohm) Max. | | | | Rated Current (mA) Max. | | | |
|-------------|--------------|----------------|--------------------------|-------------|-------------|--------------|-------------------------|------------|-------------|-------------|
| | | | FS0606 | FS0807 | FS4W 1008 | FS4W 1010 | FS0606 | FS0807 | FS4W 1008 | FS4W 1010 |
| 100L | 10 | 2.52MHz | | | 0.05 | 0.023 | | | 2800 | 3510 |
| 120L | 12 | 2.52MHz | | | 0.06 | 0.024 | | | 2500 | 3240 |
| 150L | 15 | 2.52MHz | | | 0.07 | 0.036 | | | 2300 | 2880 |
| 180L | 18 | 2.52MHz | | | 0.08 | 0.039 | | | 2100 | 2610 |
| 220L | 22 | 2.52MHz | 0.13 | 0.08 | 0.09 | 0.042 | 960 | 1600 | 2000 | 2340 |
| 270L | 27 | 2.52MHz | 0.18 | 0.10 | 0.10 | 0.045 | 870 | 1400 | 1760 | 2160 |
| 330L | 33 | 2.52MHz | 0.21 | 0.14 | 0.11 | 0.057 | 780 | 1300 | 1600 | 1890 |
| 390L | 39 | 2.52MHz | 0.26 | 0.15 | 0.12 | 0.076 | 720 | 1200 | 1380 | 1800 |
| 470L | 47 | 2.52MHz | 0.29 | 0.17 | 0.14 | 0.100 | 660 | 1100 | 1280 | 1620 |
| 560K | 56 | 2.52MHz | 0.33 | 0.19 | 0.15 | 0.110 | 600 | 990 | 1200 | 1440 |
| 680K | 68 | 2.52MHz | 0.36 | 0.21 | 0.16 | 0.150 | 550 | 890 | 1000 | 1350 |
| 820K | 82 | 2.52MHz | 0.39 | 0.27 | 0.18 | 0.160 | 500 | 810 | 960 | 1260 |
| 101K | 100 | 1KHz | 0.54 | 0.32 | 0.20 | 0.190 | 450 | 740 | 920 | 1080 |
| 121K | 120 | 1KHz | 0.62 | 0.36 | 0.24 | 0.210 | 410 | 670 | 800 | 990 |
| 151K | 150 | 1KHz | 0.72 | 0.51 | 0.35 | 0.230 | 370 | 600 | 730 | 900 |
| 181K | 180 | 1KHz | 0.88 | 0.57 | 0.40 | 0.260 | 340 | 550 | 640 | 820 |
| 221K | 220 | 1KHz | 0.99 | 0.76 | 0.54 | 0.290 | 300 | 500 | 610 | 740 |
| 271K | 270 | 1KHz | 1.52 | 0.86 | 0.76 | 0.360 | 270 | 450 | 560 | 670 |
| 331K | 330 | 1KHz | 1.69 | 0.97 | 0.86 | 0.510 | 250 | 410 | 500 | 610 |
| 391K | 390 | 1KHz | 1.85 | 1.28 | 0.93 | 0.690 | 230 | 370 | 440 | 550 |
| 471K | 470 | 1KHz | 2.85 | 1.44 | 1.23 | 0.980 | 210 | 340 | 410 | 510 |
| 561K | 560 | 1KHz | 3.21 | 1.61 | 1.34 | 1.100 | 190 | 310 | 380 | 460 |
| 681K | 680 | 1KHz | 3.60 | 2.07 | 1.53 | 1.200 | 170 | 280 | 340 | 420 |
| 821K | 820 | 1KHz | 4.87 | 2.33 | 2.10 | 1.300 | 160 | 260 | 320 | 380 |
| 102K | 1000 | 1KHz | 5.65 | 2.72 | 2.30 | 1.500 | 140 | 230 | 280 | 350 |
| 122K | 1200 | 1KHz | | 3.98 | | | | 210 | | |
| 152K | 1500 | 1KHz | | 4.50 | | | | 190 | | |
| 182K | 1800 | 1KHz | | 6.81 | | | | 170 | | |
| 222K | 2200 | 1KHz | | 7.56 | | | | 160 | | |
| 272K | 2700 | 1KHz | | 8.54 | | | | 140 | | |
| 332K | 3300 | 1KHz | | 9.74 | | | | 130 | | |
| 392K | 3900 | 1KHz | | 12.9 | | | | 120 | | |
| 472K | 4700 | 1KHz | | 14.7 | | | | 110 | | |
| 562K | 5600 | 1KHz | | 20.4 | | | | 99 | | |
| 682K | 6800 | 1KHz | | 23.0 | | | | 89 | | |
| 822K | 8200 | 1KHz | | 30.6 | | | | 81 | | |
| 103K | 10000 | 1KHz | | 35.0 | | | | 74 | | |

| Part No. | L (mH) @1kHz | Q Min. | Q Test Freq. | DCR (Ohm) Max. | Rated Current (mA) Max. |
|---------------------|--------------------|------------|--------------------|----------------------|-------------------------------|
| FS1012 -122K | 1.2 | 50 | 252 kHz | 1.2 | 200 |
| FS1012 -152K | 1.5 | 50 | 252 kHz | 1.5 | 200 |
| FS1012 -182K | 1.8 | 50 | 252 kHz | 1.6 | 200 |
| FS1012 -222K | 2.2 | 50 | 252 kHz | 1.8 | 200 |
| FS1012 -272K | 2.7 | 40 | 252 kHz | 1.9 | 200 |
| FS1012 -332K | 3.3 | 40 | 252 kHz | 2.3 | 200 |
| FS1012 -392K | 3.9 | 40 | 252 kHz | 2.5 | 200 |
| FS1012 -472K | 4.7 | 40 | 252 kHz | 3.7 | 140 |
| FS1012 -502K | 5.0 | 40 | 252 kHz | 3.8 | 140 |
| FS1012 -562K | 5.6 | 40 | 252 kHz | 4.0 | 140 |
| FS1012 -682K | 6.8 | 40 | 252 kHz | 4.2 | 140 |
| FS1012 -822K | 8.2 | 40 | 252 kHz | 5.3 | 140 |
| FS1012 -103K | 10 | 100 | 79.6 kHz | 7.3 | 100 |
| FS1012 -123K | 12 | 100 | 79.6 kHz | 8.3 | 100 |
| FS1012 -153K | 15 | 100 | 79.6 kHz | 11.0 | 90 |
| FS1012 -183K | 18 | 100 | 79.6 kHz | 13.6 | 75 |
| FS1012 -223K | 22 | 100 | 79.6 kHz | 15.4 | 75 |
| FS1012 -273K | 27 | 100 | 79.6 kHz | 17.9 | 75 |
| FS1012 -333K | 33 | 100 | 79.6 kHz | 23.3 | 60 |
| FS1012 -393K | 39 | 100 | 79.6 kHz | 25.9 | 60 |
| FS1012 -473K | 47 | 80 | 79.6 kHz | 30.4 | 60 |
| FS1012 -503K | 50 | 80 | 79.6 kHz | 37.8 | 50 |
| FS1012 -563K | 56 | 80 | 79.6 kHz | 39.1 | 50 |
| FS1012 -683K | 68 | 50 | 79.6 kHz | 40 | 50 |
| FS1012 -823K | 82 | 50 | 79.6 kHz | 47 | 40 |
| FS1012 -104K | 100 | 120 | 25.2 kHz | 50 | 40 |
| FS1012 -124K | 120 | 100 | 25.2 kHz | 91 | 30 |
| FS1012 -154K | 150 | 90 | 25.2 kHz | 140 | 20 |
| FS1012 -184K | 180 | 90 | 25.2 kHz | 164 | 20 |
| FS1012 -224K | 220 | 90 | 25.2 kHz | 182 | 20 |
| FS1012 -274K | 270 | 90 | 25.2 kHz | 200 | 20 |
| FS1012 -334K | 330 | 80 | 25.2 kHz | 275 | 15 |
| FS1012 -394K | 390 | 80 | 25.2 kHz | 300 | 15 |
| FS1012 -474K | 470 | 80 | 25.2 kHz | 345 | 15 |
| FS1012 -564K | 560 | 60 | 25.2 kHz | 520 | 8.4 |
| FS1012 -684K | 680 | 60 | 25.2 kHz | 590 | 8.4 |
| FS1012 -824K | 820 | 50 | 25.2 kHz | 675 | 8.4 |
| FS1012 -105K | 1000 | 50 | 25.2 kHz | 770 | 8.4 |
| FS1012 -125K | 1200 | 50 | 25.2 kHz | 845 | 8.4 |

| Part No. | L (mH) @1kHz | Q Min. | Q Test Freq. | DCR (Ohm) Max. | Rated Current (mA) Max. |
|-----------------------|--------------------|-----------|--------------------|----------------------|-------------------------------|
| FSB1014 - 102K | 1.0 | 15 | 252 KHz | 2.0 | 270 |
| FSB1014 - 122K | 1.2 | 15 | 252 KHz | 2.3 | 250 |
| FSB1014 - 152K | 1.5 | 15 | 252 KHz | 2.7 | 220 |
| FSB1014 - 182K | 1.8 | 15 | 252 KHz | 3.0 | 220 |
| FSB1014 - 222K | 2.2 | 15 | 252 KHz | 3.8 | 200 |
| FSB1014 - 272K | 2.7 | 15 | 252 KHz | 4.5 | 180 |
| FSB1014 - 332K | 3.3 | 20 | 252 KHz | 6.0 | 160 |
| FSB1014 - 392K | 3.9 | 20 | 252 KHz | 7.8 | 120 |
| FSB1014 - 472K | 4.7 | 20 | 252 KHz | 10.5 | 120 |
| FSB1014 - 562K | 5.6 | 20 | 252 KHz | 11.0 | 100 |
| FSB1014 - 682K | 6.8 | 20 | 252 KHz | 11.8 | 100 |
| FSB1014 - 822K | 8.2 | 20 | 252 KHz | 13.2 | 100 |
| FSB1014 - 103K | 10 | 60 | 79.6 KHz | 17.6 | 90 |
| FSB1014 - 123K | 12 | 60 | 79.6 KHz | 22.5 | 75 |
| FSB1014 - 153K | 15 | 60 | 79.6 KHz | 25 | 75 |
| FSB1014 - 183K | 18 | 60 | 79.6 KHz | 32 | 60 |
| FSB1014 - 223K | 22 | 60 | 79.6 KHz | 36 | 60 |
| FSB1014 - 273K | 27 | 60 | 79.6 KHz | 46 | 50 |
| FSB1014 - 333K | 33 | 60 | 79.6 KHz | 54 | 50 |
| FSB1014 - 393K | 39 | 45 | 79.6 KHz | 72 | 40 |
| FSB1014 - 473K | 47 | 45 | 79.6 KHz | 76 | 40 |
| FSB1014 - 563K | 56 | 45 | 79.6 KHz | 89 | 40 |
| FSB1014 - 683K | 68 | 30 | 79.6 KHz | 123 | 30 |
| FSB1014 - 823K | 82 | 30 | 79.6 KHz | 135 | 30 |
| FSB1014 - 104K | 100 | 45 | 25.2 KHz | 205 | 20 |
| FSB1014 - 124K | 120 | 45 | 25.2 KHz | 228 | 20 |

| Part No. | L (uH) @1kHz | DCR (Ohm)Max. | | I sat (A) | | 1 rms (A) | |
|-------------|-----------------|---------------|--------------|-------------|-------------|-------------|-------------|
| | | FS1215 | FS1618 | FS1215 | FS1618 | FS1215 | FS1618 |
| 100L | 10 | 0.015 | 0.020 | 5.0 | 7.0 | 3.61 | 5.20 |
| 150L | 15 | 0.017 | 0.022 | 4.0 | 6.0 | 3.16 | 4.90 |
| 180L | 18 | 0.020 | 0.025 | 3.7 | 5.2 | 2.81 | 4.70 |
| 220L | 22 | 0.021 | 0.028 | 3.3 | 4.9 | 2.44 | 4.50 |
| 270L | 27 | 0.023 | 0.032 | 3.0 | 4.3 | 2.12 | 4.30 |
| 330L | 33 | 0.024 | 0.033 | 2.7 | 3.9 | 1.80 | 4.10 |
| 390L | 39 | 0.027 | 0.036 | 2.5 | 3.7 | 1.64 | 3.90 |
| 470L | 47 | 0.032 | 0.038 | 2.3 | 3.4 | 1.57 | 3.60 |
| 560L | 56 | 0.034 | 0.042 | 2.1 | 3.1 | 1.39 | 3.50 |
| 680L | 68 | 0.060 | 0.046 | 1.9 | 2.9 | 1.26 | 3.40 |
| 820L | 82 | 0.070 | 0.049 | 1.7 | 2.8 | 1.18 | 3.10 |
| 101L | 100 | 0.09 | 0.053 | 1.5 | 2.5 | 1.14 | 2.90 |
| 151L | 150 | 0.11 | 0.077 | 1.0 | 2.0 | 0.82 | 2.30 |
| 181L | 180 | 0.12 | 0.10 | 0.90 | 1.8 | 0.73 | 2.10 |
| 221L | 220 | 0.14 | 0.14 | 0.82 | 1.6 | 0.61 | 1.70 |
| 271L | 270 | 0.16 | 0.20 | 0.74 | 1.4 | 0.54 | 1.50 |
| 331L | 330 | 0.17 | 0.27 | 0.68 | 1.3 | 0.52 | 1.40 |
| 391L | 390 | 0.32 | 0.41 | 0.62 | 1.2 | 0.48 | 1.10 |
| 471L | 470 | 0.35 | 0.46 | 0.56 | 1.1 | 0.44 | 1.00 |
| 561L | 560 | 0.39 | 0.51 | 0.52 | 1.0 | 0.40 | 0.98 |
| 681L | 680 | 0.44 | 0.56 | 0.46 | 0.90 | 0.38 | 0.94 |
| 821L | 820 | 0.48 | 0.63 | 0.42 | 0.83 | 0.28 | 0.90 |
| 102L | 1000 | 0.53 | 0.69 | 0.38 | 0.75 | 0.27 | 0.86 |
| 122L | 1200 | 0.66 | | 0.35 | | 0.26 | |
| 152L | 1500 | 0.86 | | 0.31 | | 0.23 | |
| 182L | 1800 | 0.95 | | 0.28 | | 0.21 | |
| 222L | 2200 | 1.07 | | 0.25 | | 0.18 | |