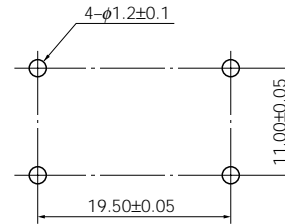
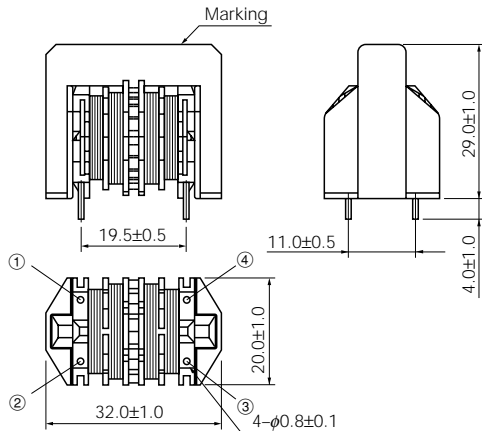


Series N, High N

● Type 20N, 21N

Dimensions in mm (not to scale)

Recommended PWB piercing plan



● Standard Parts (Series N : 20N)

● Standard Parts (Series High N : 21N)

| Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|----------------------|---|----------------------|------------|----------|----------------------|---|----------------------|
| ELF20N006A | 693 06 | 69.0 | 1.250 | 0.6 | ELF21N006A | · 873 06 | 87.0 | 1.250 | 0.6 |
| ELF20N008A | 433 08 | 43.0 | 0.770 | 0.8 | ELF21N008A | · 543 08 | 54.0 | 0.770 | 0.8 |
| ELF20N010A | 283 10 | 28.0 | 0.500 | 1.0 | ELF21N010A | · 363 10 | 36.0 | 0.500 | 1.0 |
| ELF20N013A | 183 13 | 18.0 | 0.317 | 1.3 | ELF21N013A | · 223 13 | 22.0 | 0.317 | 1.3 |
| ELF20N015A | 143 15 | 14.0 | 0.240 | 1.5 | ELF21N015A | · 183 15 | 18.0 | 0.240 | 1.5 |
| ELF20N016A | 123 16 | 12.0 | 0.212 | 1.6 | ELF21N016A | · 153 16 | 15.0 | 0.212 | 1.6 |
| ELF20N018A | 752 18 | 7.5 | 0.160 | 1.8 | ELF21N018A | · 942 18 | 9.4 | 0.160 | 1.8 |
| ELF20N020A | 702 20 | 7.0 | 0.134 | 2.0 | ELF21N020A | · 872 20 | 8.7 | 0.134 | 2.0 |
| ELF20N022A | 622 22 | 6.2 | 0.111 | 2.2 | ELF21N022A | · 782 22 | 7.8 | 0.111 | 2.2 |
| ELF20N024A | 492 24 | 4.9 | 0.094 | 2.4 | ELF21N024A | · 612 24 | 6.1 | 0.094 | 2.4 |
| ELF20N027A | 472 27 | 4.7 | 0.082 | 2.7 | ELF21N027A | · 582 27 | 5.8 | 0.082 | 2.7 |
| ELF20N030A | 292 30 | 2.9 | 0.056 | 3.0 | ELF21N030A | · 372 30 | 3.7 | 0.056 | 3.0 |
| ELF20N035A | 202 35 | 2.0 | 0.044 | 3.5 | ELF21N035A | · 252 35 | 2.5 | 0.044 | 3.5 |
| ELF20N040A | 152 40 | 1.5 | 0.033 | 4.0 | ELF21N040A | · 192 40 | 1.9 | 0.033 | 4.0 |

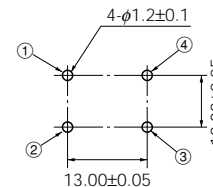
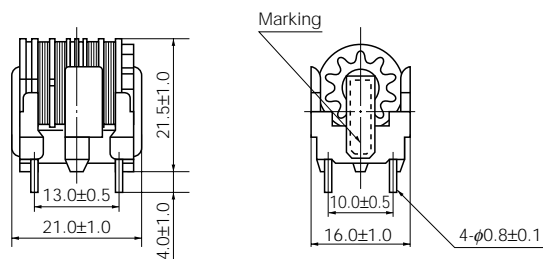
* DC Resistance

Series V

● Type 290

Dimensions in mm (not to scale)

Recommended PWB piercing plan



● Standard Parts

| Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|----------------------|---|----------------------|------------|---------|----------------------|---|----------------------|
| ELF18D290H | 290H | 33.00 | 2.691 | 0.3 | ELF18D290R | 290R | 3.90 | 0.305 | 1.0 |
| ELF18D290C | 290C | 22.00 | 1.707 | 0.4 | ELF18D290S | 290S | 3.30 | 0.277 | 1.1 |
| ELF18D290A | 290A | 18.00 | 1.271 | 0.5 | ELF18D290E | 290E | 2.70 | 0.248 | 1.1 |
| ELF18D290G | 290G | 10.00 | 0.782 | 0.6 | ELF18D290T | 290T | 2.20 | 0.186 | 1.3 |
| ELF18D290L | 290L | 8.20 | 0.681 | 0.6 | ELF18D290V | 290V | 1.80 | 0.162 | 1.5 |
| ELF18D290P | 290P | 6.80 | 0.571 | 0.7 | ELF18D290D | 290D | 1.20 | 0.119 | 1.6 |
| ELF18D290M | 290M | 5.60 | 0.504 | 0.8 | ELF18D290B | 290B | 0.82 | 0.072 | 2.0 |

* DC Resistance

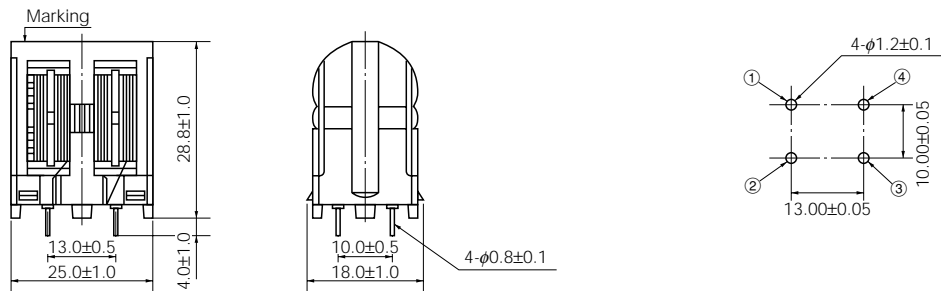
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

Series V

● Type 450

Dimensions in mm (not to scale)

Recommended PWB piercing plan



● Standard Parts

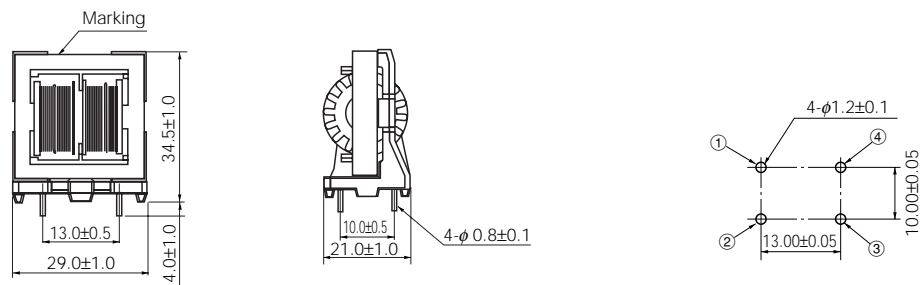
| Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|----------------------|---|----------------------|------------|---------|----------------------|---|----------------------|
| ELF18D450Q | ELF450Q | 56.0 | 1.795 | 0.4 | ELF18D450D | ELF450D | 5.6 | 0.191 | 1.4 |
| ELF18D450H | ELF450H | 39.0 | 1.332 | 0.5 | ELF18D450K | ELF450K | 3.9 | 0.133 | 1.8 |
| ELF18D450B | ELF450B | 18.0 | 0.655 | 0.8 | ELF18D450A | ELF450A | 2.7 | 0.110 | 2.0 |
| ELF18D450J | ELF450J | 10.0 | 0.384 | 1.0 | ELF18D450C | ELF450C | 2.2 | 0.084 | 2.2 |
| ELF18D450G | ELF450G | 8.2 | 0.274 | 1.1 | ELF18D450M | ELF450M | 1.2 | 0.043 | 3.0 |
| ELF18D450L | ELF450L | 6.8 | 0.253 | 1.2 | | | | | |

* DC Resistance

● Type 21V

Dimensions in mm (not to scale)

Recommended PWB piercing plan



● Standard Parts

| Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|----------------------|---|----------------------|------------|---------|----------------------|---|----------------------|
| ELF21V006S | 723 06S | 72.0 | 1.294 | 0.6 | ELF21V019S | 872 19S | 8.7 | 0.155 | 1.9 |
| ELF21V009S | 363 09S | 36.0 | 0.707 | 0.9 | ELF21V020S | 752 20S | 7.5 | 0.147 | 2.0 |
| ELF21V010S | 293 10S | 29.0 | 0.515 | 1.0 | ELF21V023S | 592 23S | 5.9 | 0.111 | 2.3 |
| ELF21V013S | 193 13S | 19.0 | 0.331 | 1.3 | ELF21V027S | 452 27S | 4.5 | 0.087 | 2.7 |
| ELF21V014S | 173 14S | 17.0 | 0.309 | 1.4 | ELF21V030S | 332 30S | 3.3 | 0.071 | 3.0 |
| ELF21V017S | 123 17S | 12.0 | 0.226 | 1.7 | ELF21V033S | 232 33S | 2.3 | 0.058 | 3.3 |

* DC Resistance

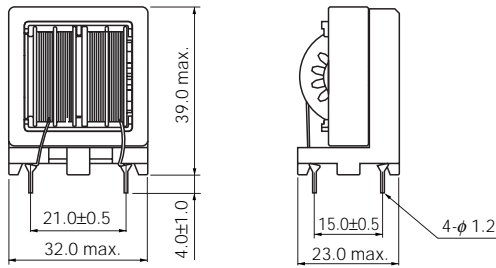
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Feb. 2006

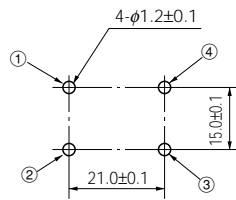
Series V

● Type 22V

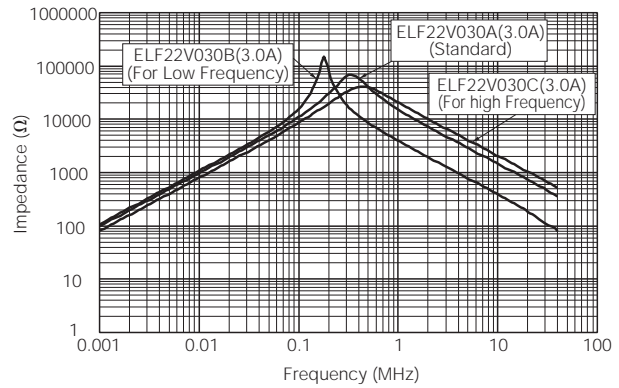
Dimensions in mm (not to scale)



Recommended PWB piercing plan



● Impedance Characteristics



● Standard Parts (22V□□□A)

| Part No. | Marking | Inductance (mH)min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH)min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|---------------------|---|----------------------|------------|---------|---------------------|---|----------------------|
| ELF22V020A | 233 20A | 23.3 | 0.203 | 2.0 | ELF22V050A | 402 50A | 4.0 | 0.038 | 5.0 |
| ELF22V025A | 123 25A | 12.6 | 0.114 | 2.5 | ELF22V060A | 302 60A | 3.0 | 0.025 | 6.0 |
| ELF22V030A | 982 30A | 9.8 | 0.085 | 3.0 | ELF22V070A | 202 70A | 2.0 | 0.021 | 7.0 |
| ELF22V035A | 732 35A | 7.3 | 0.072 | 3.5 | ELF22V080A | 102 80A | 1.0 | 0.014 | 8.0 |
| ELF22V040A | 582 40A | 5.8 | 0.059 | 4.0 | | | | | |

* DC Resistance

● Standard Parts (22V□□□B)

| Part No. | Marking | Inductance (mH)min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH)min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|---------------------|---|----------------------|------------|---------|---------------------|---|----------------------|
| ELF22V020B | 273 20B | 27.0 | 0.194 | 2.0 | ELF22V040B | 692 40B | 6.9 | 0.057 | 4.0 |
| ELF22V025B | 183 25B | 18.0 | 0.138 | 2.5 | ELF22V050B | 452 50B | 4.5 | 0.037 | 5.0 |
| ELF22V030B | 133 30B | 13.1 | 0.102 | 3.0 | ELF22V060B | 322 60B | 3.2 | 0.027 | 6.0 |
| ELF22V035B | 932 35B | 9.3 | 0.075 | 3.5 | ELF22V070B | 222 70B | 2.2 | 0.022 | 7.0 |

* DC Resistance

● Standard Parts (22V□□□C)

| Part No. | Marking | Inductance (mH)min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH)min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|---------------------|---|----------------------|------------|---------|---------------------|---|----------------------|
| ELF22V020C | 163 20C | 16.0 | 0.170 | 2.0 | ELF22V035C | 582 35C | 5.8 | 0.069 | 3.5 |
| ELF22V025C | 982 25C | 9.8 | 0.115 | 2.5 | ELF22V040C | 452 40C | 4.5 | 0.054 | 4.0 |
| ELF22V030C | 802 30C | 8.0 | 0.091 | 3.0 | | | | | |

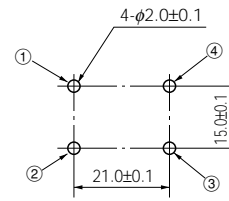
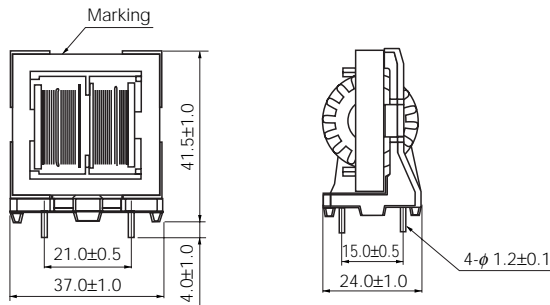
* DC Resistance

Series V

Type 24V

Dimensions in mm (not to scale)

Recommended PWB piercing plan



Standard Parts

| Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|------------|---------|----------------------|---|----------------------|------------|----------|----------------------|---|----------------------|
| ELF24V008A | 823 08A | 82.00 | 0.892 | 0.8 | ELF24V034A | 562 34A | 5.60 | 0.065 | 3.4 |
| ELF24V010A | 563 10A | 56.00 | 0.608 | 1.0 | ELF24V035A | 472 35A | 4.70 | 0.060 | 3.5 |
| ELF24V012A | 473 12A | 47.00 | 0.469 | 1.2 | ELF24V037A | 392 37A | 3.90 | 0.052 | 3.7 |
| ELF24V014A | 333 14A | 33.00 | 0.327 | 1.4 | ELF24V042A | 332 42A | 3.30 | 0.041 | 4.2 |
| ELF24V015A | 273 15A | 27.00 | 0.274 | 1.5 | ELF24V045A | 272 45A | 2.70 | 0.031 | 4.5 |
| ELF24V018A | 223 18A | 22.00 | 0.237 | 1.8 | ELF24V050A | 152 50A | 1.50 | 0.028 | 5.0 |
| ELF24V019A | 183 19A | 18.00 | 0.228 | 1.9 | ELF24V070A | 801 70A | 0.80 | 0.016 | 7.0 |
| ELF24V020A | 153 20A | 15.00 | 0.161 | 2.0 | ELF24V080A | 401 80A | 0.40 | 0.015 max. | 8.0 |
| ELF24V025A | 103 25A | 10.00 | 0.124 | 2.5 | ELF24V090A | 261 90A | 0.26 | 0.012 max. | 9.0 |
| ELF24V028A | 902 28A | 9.00 | 0.100 | 2.8 | ELF24V100A | 151 100A | 0.15 | 0.0085 max. | 10.0 |
| ELF24V030A | 822 30A | 8.20 | 0.090 | 3.0 | | | | | |

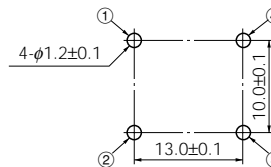
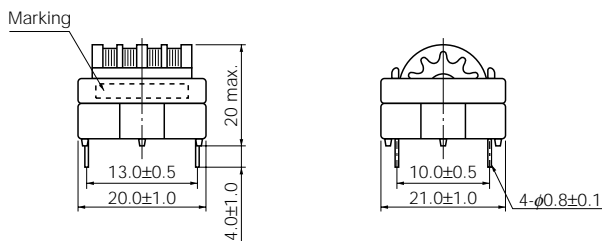
* DC Resistance

Series H

Type 200

Dimensions in mm (not to scale)

Recommended PWB piercing plan



Standard Parts

| Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. | Part No. | Marking | Inductance (mH) min. | *R _{DC} (Ω) [at 20 °C] (Tol ±20 %) | Current (A rms) max. |
|-----------|---------|----------------------|---|----------------------|------------|---------|----------------------|---|----------------------|
| ELF18D218 | ELF218 | 22.0 | 1.564 | 0.40 | ELF18D222F | ELF222F | 68.0 | 4.024 | 0.25 |
| ELF18D210 | ELF210 | 18.0 | 1.271 | 0.50 | ELF18D235F | ELF235F | 47.0 | 2.768 | 0.30 |
| ELF18D214 | ELF214 | 8.2 | 0.574 | 0.70 | ELF18D221F | ELF221F | 33.0 | 1.790 | 0.40 |
| ELF18D225 | ELF225 | 6.8 | 0.519 | 0.80 | ELF18D227F | ELF227F | 4.7 | 0.294 | 1.00 |
| ELF18D216 | ELF216 | 3.9 | 0.294 | 1.00 | ELF18D228F | ELF228F | 2.2 | 0.153 | 1.50 |
| ELF18D219 | ELF219 | 2.7 | 0.197 | 1.30 | ELF18D230F | ELF230F | 1.2 | 0.082 | 2.00 |
| ELF18D217 | ELF217 | 1.5 | 0.119 | 1.60 | ELF18D212F | ELF212F | 1.0 | 0.067 | 2.10 |

* DC Resistance

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