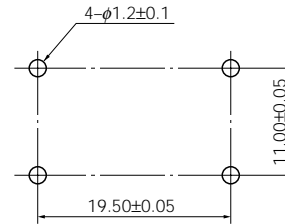
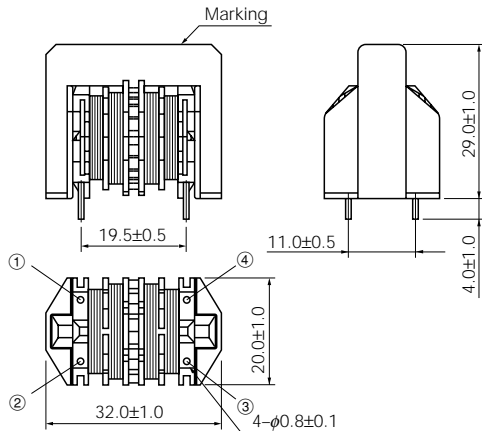


### Series N, High N

#### ● 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 <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (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

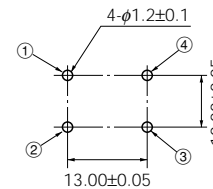
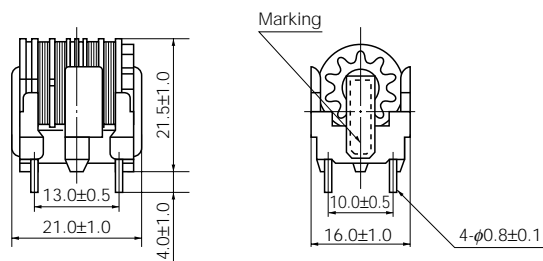
\* DC Resistance

### Series V

#### ● Type 290

Dimensions in mm (not to scale)

Recommended PWB piercing plan



#### ● Standard Parts

Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (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

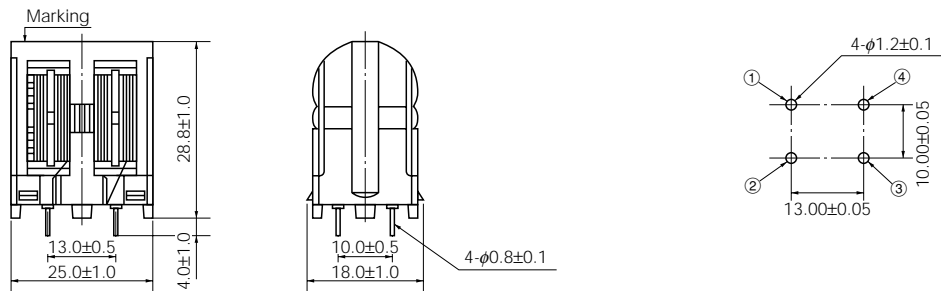
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

## Series V

### Type 450

Dimensions in mm (not to scale)

Recommended PWB piercing plan



### Standard Parts

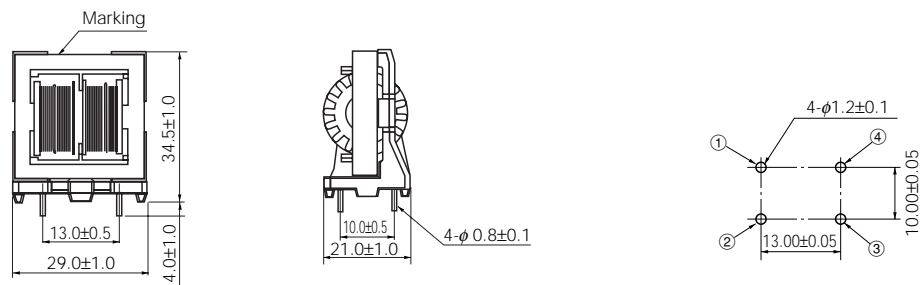
Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.
ELF18D450Q	ELF450Q	56.0	1.795	0.4	ELF18D450D	ELF450D	5.6	0.191	1.4
ELF18D450H	ELF450H	39.0	1.332	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 <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (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

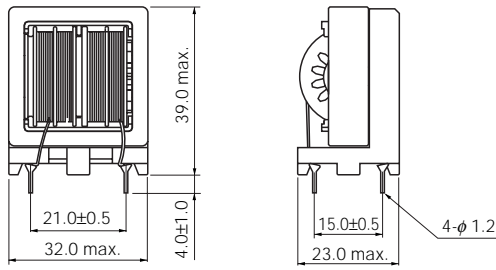
\* DC Resistance

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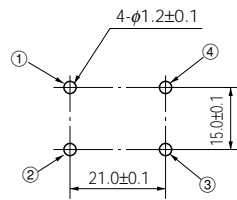
### Series V

#### ● Type 22V

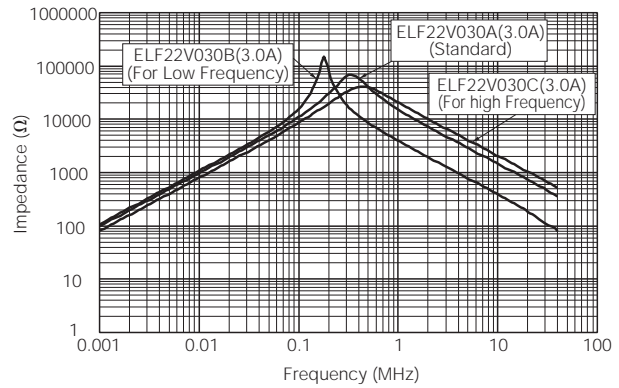
Dimensions in mm (not to scale)



Recommended PWB piercing plan



#### ● Impedance Characteristics



#### ● Standard Parts (22V□□□A)

Part No.	Marking	Inductance (mH)min.	*R <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH)min.	*R <sub>DC</sub> (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 <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH)min.	*R <sub>DC</sub> (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 <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH)min.	*R <sub>DC</sub> (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					

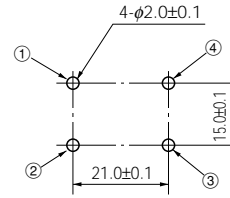
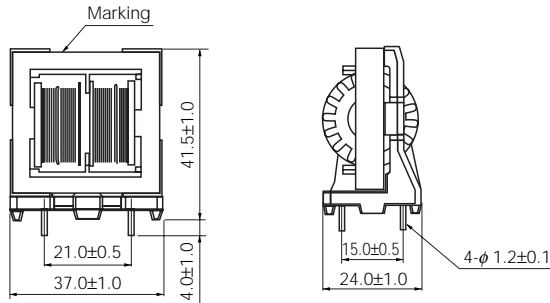
\* DC Resistance

## Series V

### Type 24V

Dimensions in mm (not to scale)

Recommended PWB piercing plan



### Standard Parts

Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (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					

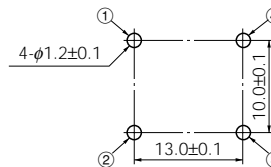
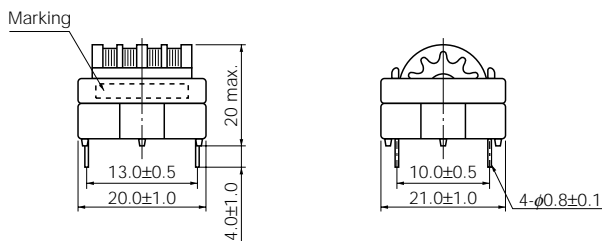
\* DC Resistance

## Series H

### Type 200

Dimensions in mm (not to scale)

Recommended PWB piercing plan



### Standard Parts

Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (Ω) [at 20 °C] (Tol ±20 %)	Current (A rms) max.	Part No.	Marking	Inductance (mH) min.	*R <sub>DC</sub> (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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Feb. 2006