

Saturating Chokes



- | Rated currents from 1.5 to 25 A

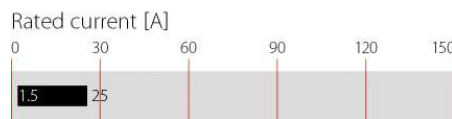
- | Up to 500 VAC operating voltage

- | DC to 1 kHz frequency

- | Single or dual-choke configurations



Performance indicators



Technical specifications

Maximum continuous operating voltage	500 VAC @ 40 °C
Operating frequency	dc to 1 kHz
Rated currents	1.5 to 25 A @ 40 °C max.
High potential test voltage winding-to-winding @ 25°C and/or winding-to-inserts	2500 VAC, 60 sec, guaranteed 2500 V, 50 Hz, 2 sec, factory test
Surge current @ 10msec	20 x Inominal @ 25°C
Temperature range (operation and storage)	-25 °C to +110 °C (25/110/21)
Flammability corresponding to MTBF @ 40°C/230V (Mil-HB-217F)	UL 94 V-0 > 5,000,000 hours

Approvals

ROHS

RI saturating type chokes change impedance at the moment of switching, and can be used to attenuate differential-mode noise or symmetrical interference as generated in fast switching high current applications. These chokes are typically used in conjunction with suppression capacitors. For optimum attenuation chokes must be connected as close as possible to the semiconductor switching device.

Features and benefits

- | Excellent thermal behavior.

- | Through hole or wire connections.

- | Single or dual-choke configurations.

- | Up to 25 A single configuration.

- | Custom-specific versions are available on request.

Typical applications

- | Suppressing high interference levels generated by fast switching circuits

- | DC voltage smoothing

- | EMC/EMI filters

- | Phase angle control circuits



- | Power supplies

- | Chargers

Typical electrical schematic



Choke selection table

Choke	Nominal current @ 40 °C [A]	Resistance R [mΩ/path]	L min [mH]	Choke configuration [Qty]	Input/Output connections		Weight [g]
							
RI 111 PC	6	42	3.0	2	02		170
RI 401 PC	1.5	620	3.0	1	02		15
RI 403 PC	3	105	1.8	1	02		30
RI 406 PC	6	53	1.2	1	02		55
RI 410 PC	10	28	1.0	1	02		95
RI 415	15	8	0.3	1		07	205
RI 425	25	4	0.25	1		07	325

Test conditions:

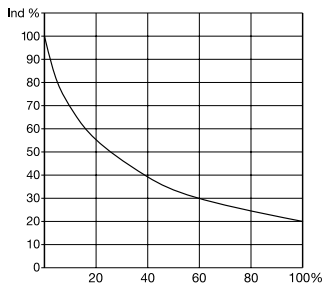
Resistance tolerance: $\pm 15\%$ @ 25 °C

Electrical characteristics @ 25 °C: $\pm 2\%$ °C

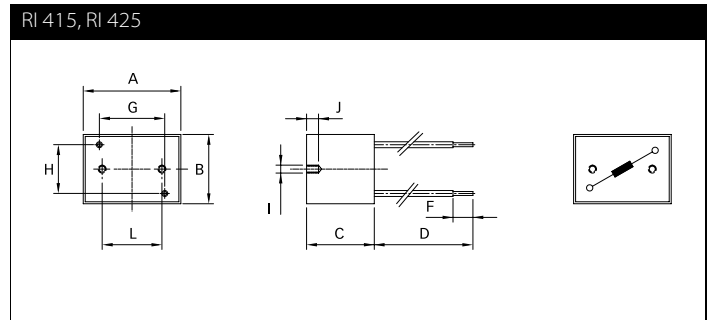
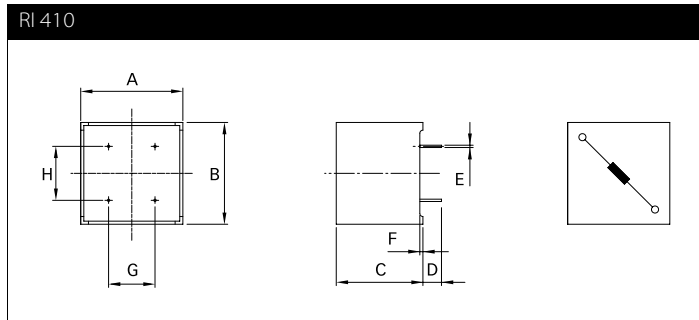
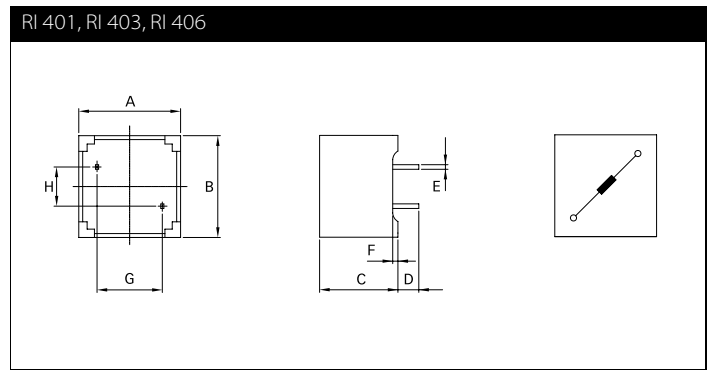
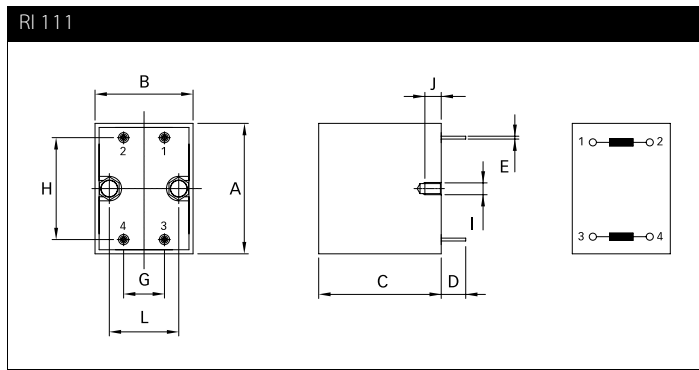
Typical saturation characteristics

Inductance (typical value in %) vs. nominal current in %

RI series



Mechanical data



Dimensions

	RI 111	RI 401	RI 403	RI 406	RI 410	RI 415	RI 425	Tolerances
A	49	19.5	23.3	28.5	33	35	48	
B	35	19.5	23.3	28.5	33	49	48	
C	34	15	18	21.5	28	34	43	±0.3
D	15	4 ± 0.5	6 ± 0.5	4.5 ± 0.5	6 ± 0.5	200	200	
E	∅ 1.15	0.6 x 0.88	∅ 0.9	0.6 x 0.88	0.75 x 1.1			±0.1
F		1			1	10	10	
G	20	12.5	15	20	17.5	22	39	
H	40	7.5	10	10	15	36	35	
I	M4					M4	M4	
J	6					6	6	+0/-0.5
L	21					30	30	±0.25

All dimensions in mm; 1 inch = 25.4 mm
 Tolerances according: ISO 2768-m / EN 22768-m

Please visit www.schaffner.com to find more details on filter connections.



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