

# Saturating Chokes

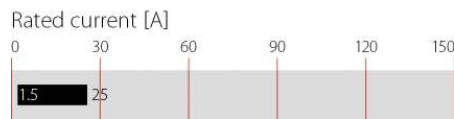
## EMC/EMI Chokes RI series



- | 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

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

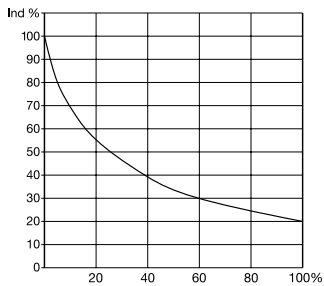
Resistance tolerance: max. ±15% @ 25 °C; < 200 mΩ, 100 mA; > 200 mΩ ≤ 2 Ω, 10 mA

Electrical characteristics @ 25 °C: ±2 °C

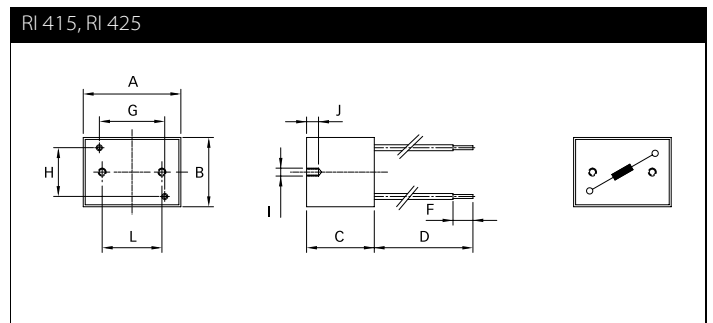
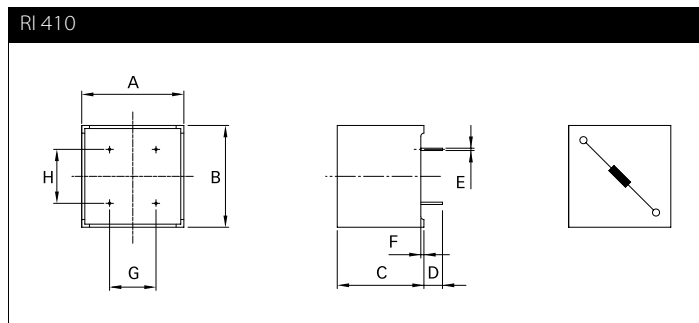
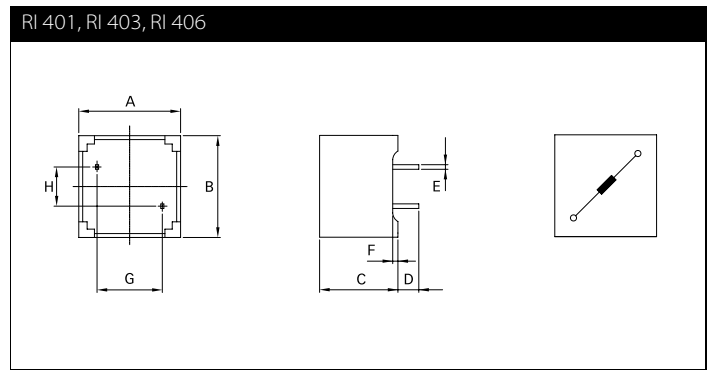
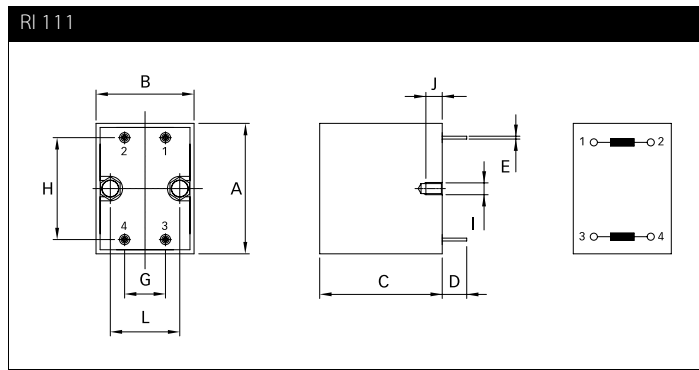
## Typical saturation characteristics

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

RI series



## Mechanical data



## Dimensions

	<b>RI 111</b>	<b>RI 401</b>	<b>RI 403</b>	<b>RI 406</b>	<b>RI 410</b>	<b>RI 415</b>	<b>RI 425</b>	<b>Tolerances</b>
<b>A</b>	49	19.5	23.3	28.5	33	35	48	
<b>B</b>	35	19.5	23.3	28.5	33	49	48	
<b>C</b>	34	15	18	21.5	28	34	43	±0.3
<b>D</b>	15	± 0.5	± 0.5	± 0.5	± 0.5	200	200	
<b>E</b>	∅ 1.15	0.6 x 0.88	∅ 0.9	0.6 x 0.88	0.75 x 1.1			±0.1
<b>F</b>		1			1	10	10	
<b>G</b>	20	12.5	15	20	17.5	22	39	
<b>H</b>	40	7.5	10	10	15	36	35	
<b>I</b>	M4					M4	M4	
<b>J</b>	6					6	6	+0/-0.5
<b>L</b>	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](http://www.schaffner.com) to find more details on filter connections.



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