



Chokes and inductors

VHF chokes

Series/Type:	B82131 ... B82134
Date:	November 2005



VHF chokes

B82131 ... B82134

Carbonyl iron core

Rated voltage 500 VAC/DC
Rated current 0.15 to 6 A
Rated inductance 1 to 420 μ H



Construction

- Cylinder core of carbonyl iron
- Winding: single-layer, enamel copper wire
- Polyester insulating sleeve

Features

- High resonant frequency
- RoHS-compatible¹⁾

Applications

- RF blocking and filtering
- Interference suppression in small appliances
- Decoupling in telecommunications and entertainment electronics

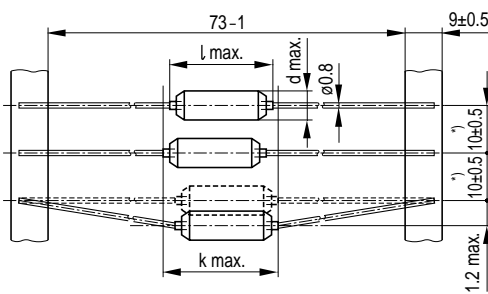
Marking

L_R and I_R in clear text

Delivery mode

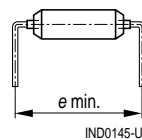
Taped and reeled (for packing and packing units see page 6).

Dimensional drawing



¹⁾ Tolerance over 10 spacings ± 2 mm

IND0144-Z-E



IND0145-U

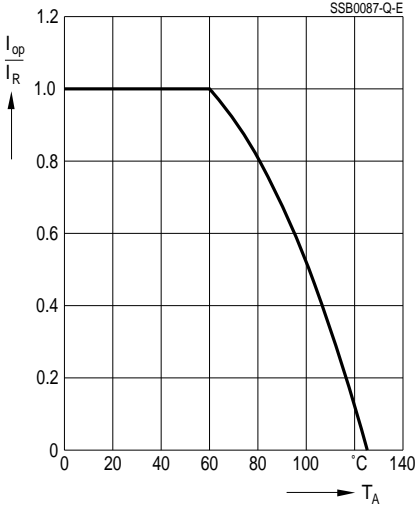

Lead spacing e_{min} (mm)	Type
17.5	B82131
22.5	B82132
27.5	B82133
32.5	B82134

1) RoHS-compatible is defined as compatible with the following documents:
DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 February 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment COM (2004) 606 final Proposal for a COUNCIL DECISION amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment.



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General technical data

Test voltage V_{test}	2500 VAC, 1 min
Rated inductance L_R	Measuring frequency: $L \leq 10 \mu\text{H}$ = 1 MHz $10 \mu\text{H} < L \leq 1000 \mu\text{H}$ = 100 kHz
Inductance tolerance	$\pm 20\%$
Rated current I_R	Referred to 60 °C ambient temperature, for derating see below
Inductance decrease $\Delta L/L_0$	$\leq 10\%$ (referred to initial value) at DC load I_R at 20 °C
DC resistance R_{typ}	Typical value, measured at 20 °C ambient temperature
Resonance frequency $f_{\text{res, min}}$	Typical value, measured with Scalar Network Analyzer ZAS from Rohde & Schwarz
Climatic category (IEC 60068-1)	55/125/56 (–55 °C/+125 °C/56 days damp heat test)
Current derating I_{op}/I_R versus ambient temperature T_A (rated temperature $T_R = 60 \text{ °C}$)	
 Mounting information	When bending the leads, take care that the bending point is at least 3 mm apart from the face ends of the core and that the start-of-winding-areas are not subject- ed to any mechanical stress.



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Characteristics and ordering codes

I_R A	L_R μH	R_{typ} Ω	f_{res} MHz	Dimensions (mm)				Approx. weight g	Ordering code
				d_{max}	l_{max}	k_{max}	e_{min}		
0.15	80	11	22	5	14	15.4	17.5	0.8	B82131A5151M000
	160	17	20	5.5	19	20.4	22.5	0.9	B82132A5151M000
	350	21	11	7.5	24	25.4	27.5	2.3	B82133A5151M000
	420	19	12	7.5	29	30.4	32.5	2.6	B82134A5151M000
0.3	40	4.1	31	5	14	15.4	17.5	0.8	B82131A5301M000
	70	5.7	29	5.5	19	20.4	22.5	0.9	B82132A5301M000
	160	6.5	16	7.5	24	25.4	27.5	2.2	B82133A5301M000
	210	6.4	18	7.5	29	30.4	32.5	2.8	B82134A5301M000
0.4	27	2.0	40	5	14	15.4	17.5	0.8	B82131A5401M000
	50	3.0	37	5.5	19	20.4	22.5	1.0	B82132A5401M000
	130	4.8	18	7.5	24	25.4	27.5	2.8	B82133A5401M000
	150	3.5	18	7.5	29	30.4	32.5	2.8	B82134A5401M000
0.7	14	0.76	53	5	14	15.4	17.5	0.8	B82131A5701M000
	23	0.73	55	5.5	19	20.4	22.5	1.0	B82132A5701M000
	55	1.20	26	7.5	24	25.4	27.5	2.4	B82133A5701M000
	60	0.77	34	7.5	29	30.4	32.5	3.0	B82134A5701M000
1.5	6	0.19	84	5	14	15.4	17.5	0.8	B82131A5152M000
	8	0.16	90	5.5	19	20.4	22.5	1.1	B82132A5152M000
	25	0.32	40	7.5	24	25.4	27.5	2.5	B82133A5152M000
	30	0.30	44	7.5	29	30.4	32.5	3.2	B82134A5152M000
2	3	0.09	113	5	14	15.4	17.5	0.8	B82131A5202M000
	6	0.11	108	5.5	19	20.4	22.5	1.1	B82132A5202M000
	14	0.13	57	7.5	24	25.4	27.5	2.8	B82133A5202M000
	20	0.15	59	7.5	29	30.4	32.5	3.3	B82134A5202M000
3	2	0.038	147	5	14	15.4	17.5	1.0	B82131A5302M000
	3	0.035	151	5.5	19	20.4	22.5	1.2	B82132A5302M000
	10	0.077	69	7.5	24	25.4	27.5	2.9	B82133A5302M000
	12	0.090	75	7.5	29	30.4	32.5	3.5	B82134A5302M000
4	1	0.014	199	5	14	15.4	17.5	1.1	B82131A5402M000
	2	0.020	186	5.5	19	20.4	22.5	1.4	B82132A5402M000
	5	0.034	87	7.5	24	25.4	27.5	3.0	B82133A5402M000
	7	0.033	94	7.5	29	30.4	32.5	4.3	B82134A5402M000
6	1	0.010	243	5.5	19	20.4	22.5	1.4	B82132A5602M000
	3	0.019	108	7.5	24	25.4	27.5	3.2	B82133A5602M000

Please read the *Important notes* at the end of this document.



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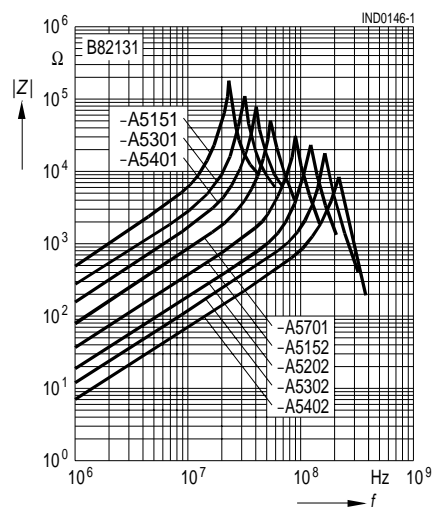
Carbonyl iron core

Impedance $|Z|$ versus frequency f

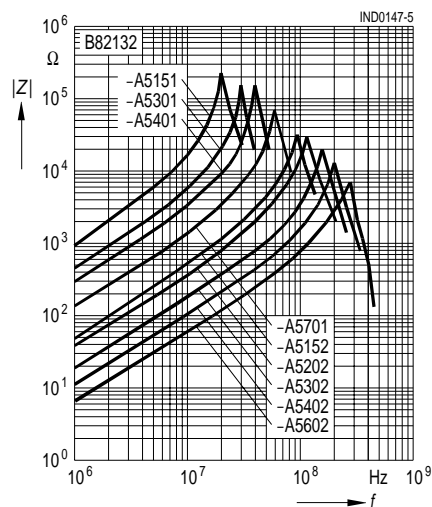
measured as per VDE 0565-2

(typical values)

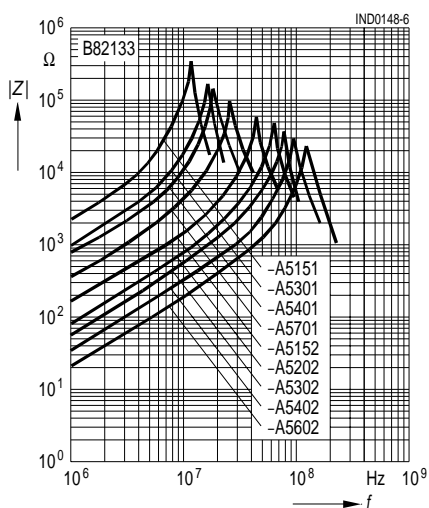
B82131A5***M000



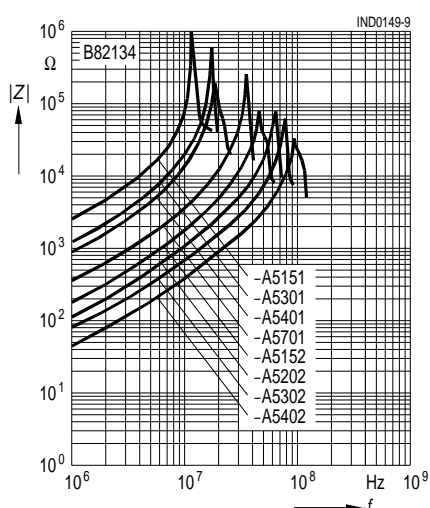
B82132A5***M000



B82133A5***M000



B82134A5***M000



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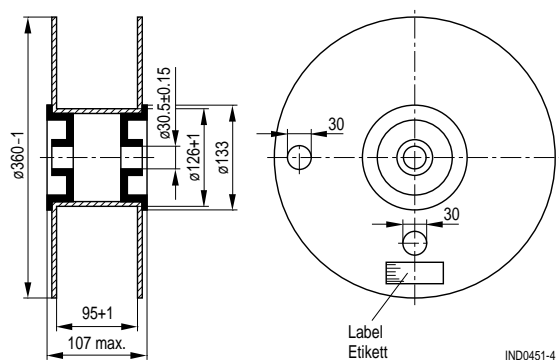
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Packing

Reel packing for B82131 ... B82134



Packing units

Type	Pieces/reel
B82131	2000
B82132	2000
B82133	1000
B82134	1000

Please read the *Important notes* at the end of this document.



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