Filter Inductors

High Current

ELECTRICAL SPECIFICATIONS

Inductance: Measured at 1.0 V with no DC current

Incremental Current: The typical current at which the inductance will be decreased by 5 % from its initial zero DC value

Dielectric Rating: 2500 VRMS between winding and outer circumference to within 0.250" [6.35 mm] of the insulating sleeve edge

Operating Temperature: - 55 °C to + 125 °C (no load)
- 55 °C to + 85 °C (at full rated current)

Current Rating: Maximum continuous Operating current (DC or RMS) based on a 40 °C temperature rise

FEATURES

- Printed circuit mounting (axial leads)
- Protected by polyolefin tubing
- High saturation bobbin used allowing high inductance with low DC resistance
- Pre-tinned leads
- High resistivity core offers very high parallel resistance, resulting in maximum coil performance
- 20 sleeveless models available at reduced cost

Pb-free
RoHS COMPLIANT

MECHANICAL SPECIFICATIONS

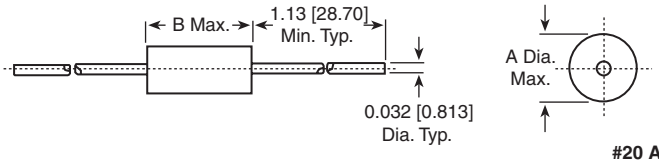
Wire: Solid soft copper

Terminals: 20 AWG tinned copper leads

Coating: Polyolefin tubing - flame retardant UL type VW-1 per MIL-I-23053/5, Class 3 requirements

Core Material: Ferrite

DIMENSIONS in inches [millimeters]



MODEL	A (Max.)	B (Max.)
IHD-1	0.270 [6.85]	0.700 [17.78]
IHD-3	0.460 [11.68]	0.900 [22.86]

STANDARD ELECTRICAL SPECIFICATIONS

IND. at 1 kHz (µH)	TOL.	DCR MAX. (Ohms)	RATED CURRENT (Max. Amps)	INCREMENTAL CURRENT (Amps Approx.)	IND. at 1 kHz (µH)	TOL.	DCR MAX. (Ohms)	RATED CURRENT (Max. Amps)	INCREMENTAL CURRENT (Amps Approx.)
MODEL IHD-1									
1.0	± 15 %	0.009	5.3	7.00	56.0	± 15 %	0.130	1.4	0.97
1.2	± 15 %	0.010	5.0	6.40	68.0	± 15 %	0.145	1.3	0.88
1.5	± 15 %	0.011	4.8	5.70	82.0	± 15 %	0.152	1.3	0.80
1.8	± 15 %	0.012	4.6	5.20	100.0	± 15 %	0.208	1.1	0.73
2.2	± 15 %	0.013	4.4	4.70	120.0	± 15 %	0.283	0.94	0.66
2.7	± 15 %	0.014	4.2	4.30	150.0	± 15 %	0.330	0.87	0.60
3.3	± 15 %	0.016	4.0	3.90	180.0	± 15 %	0.362	0.83	0.54
3.9	± 15 %	0.017	3.8	3.60	220.0	± 15 %	0.505	0.70	0.49
4.7	± 15 %	0.022	3.4	3.30	270.0	± 15 %	0.557	0.67	0.45
5.6	± 15 %	0.024	3.2	3.00	330.0	± 15 %	0.650	0.62	0.40
6.8	± 15 %	0.026	3.1	2.70	390.0	± 15 %	0.770	0.57	0.37
8.2	± 15 %	0.028	3.0	2.50	470.0	± 15 %	1.030	0.49	0.34
10.0	± 15 %	0.033	2.8	2.30	560.0	± 15 %	1.140	0.47	0.31
12.0	± 15 %	0.037	2.6	2.10	680.0	± 15 %	1.500	0.41	0.28
15.0	± 15 %	0.040	2.5	1.90	820.0	± 15 %	1.980	0.36	0.26
18.0	± 15 %	0.044	2.4	1.70	1000.0	± 15 %	2.300	0.33	0.23
22.0	± 15 %	0.050	2.2	1.50	1200.0	± 15 %	2.550	0.31	0.21
27.0	± 15 %	0.070	1.9	1.40	1500.0	± 15 %	3.000	0.29	0.19
33.0	± 15 %	0.075	1.8	1.30	1800.0	± 15 %	4.000	0.25	0.18
39.0	± 15 %	0.084	1.7	1.20	2200.0	± 15 %	4.400	0.24	0.16
47.0	± 15 %	0.104	1.6	1.10	2700.0	± 15 %	5.800	0.21	0.14

STANDARD ELECTRICAL SPECIFICATIONS

IND. at 1 kHz (µH)	TOL.	DCR MAX. (Ohms)	RATED CURRENT (Max. Amps)	INCREMENTAL CURRENT (Amps Approx.)	IND. at 1 kHz (µH)	TOL.	DCR MAX. (Ohms)	RATED CURRENT (Max. Amps)	INCREMENTAL CURRENT (Amps Approx.)
MODEL IHD-1									
3300.0	± 15 %	6.560	0.20	0.13	8200.0	± 15 %	20.800	0.11	0.08
3900.0	± 15 %	8.630	0.17	0.12	10000.0	± 15 %	23.400	0.10	0.08
4700.0	± 15 %	10.100	0.16	0.11	12000.0	± 15 %	26.000	0.10	0.07
5600.0	± 15 %	11.200	0.15	0.10	15000.0	± 15 %	36.000	0.08	0.06
6800.0	± 15 %	15.000	0.13	0.09	18000.0	v	40.000	0.08	0.06
MODEL IHD-3									
3.9	± 15 %	0.007	4.0	8.20	680.0	± 15 %	0.570	1.0	0.67
4.7	± 15 %	0.008	4.0	7.50	820.0	± 15 %	0.643	0.8	0.61
5.6	± 15 %	0.011	4.0	6.90	1000.0	± 15 %	0.844	0.8	0.56
6.8	± 15 %	0.011	4.0	6.30	1200.0	± 15 %	0.977	0.6	0.51
8.2	± 15 %	0.013	4.0	5.70	1500.0	± 15 %	1.180	0.6	0.46
10.0	± 15 %	0.016	4.0	5.20	1800.0	± 15 %	1.500	0.6	0.42
12.0	± 15 %	0.018	4.0	4.70	2200.0	± 15 %	1.760	0.5	0.38
15.0	± 15 %	0.020	4.0	4.30	2700.0	± 15 %	2.130	0.4	0.34
18.0	± 15 %	0.022	4.0	3.90	3300.0	± 15 %	2.530	0.4	0.31
22.0	± 15 %	0.024	4.0	3.50	3900.0	± 15 %	2.840	0.4	0.29
27.0	± 15 %	0.025	4.0	3.20	4700.0	± 15 %	3.790	0.4	0.26
33.0	± 15 %	0.028	4.0	2.90	5600.0	± 15 %	4.240	0.32	0.24
39.0	± 15 %	0.031	4.0	2.70	6800.0	± 15 %	5.750	0.25	0.22
47.0	± 15 %	0.034	4.0	2.50	8200.0	± 15 %	6.440	0.25	0.20
56.0	± 15 %	0.043	3.2	2.30	10000.0	± 15 %	7.300	0.25	0.18
68.0	± 15 %	0.059	2.5	2.10	12000.0	± 15 %	9.340	0.20	0.17
82.0	± 15 %	0.066	2.0	1.90	15000.0	± 15 %	10.700	0.20	0.15
100.0	± 15 %	0.084	1.6	1.70	18000.0	± 15 %	14.800	0.16	0.14
120.0	± 15 %	0.113	1.6	1.60	22000.0	± 15 %	18.000	0.13	0.12
150.0	± 15 %	0.129	1.6	1.40	27000.0	± 15 %	22.700	0.13	0.11
180.0	± 15 %	0.150	1.6	1.30	33000.0	± 15 %	25.700	0.13	0.10
220.0	± 15 %	0.162	1.6	1.20	39000.0	± 15 %	29.700	0.10	0.09
270.0	± 15 %	0.226	1.6	1.10	47000.0	± 15 %	33.700	0.10	0.09
330.0	± 15 %	0.257	1.6	0.95	56000.0	± 15 %	38.000	0.10	0.08
390.0	± 15 %	0.288	1.6	0.88	68000.0	± 15 %	52.800	0.08	0.07
470.0	± 15 %	0.393	1.2	0.80	82000.0	± 15 %	67.300	0.07	0.07
560.0	± 15 %	0.504	1.0	0.74	100000.0	± 15 %	76.000	0.07	0.06

MARKING

- Vishay Dale
- Model
- Value
- Date code

ORDERING INFORMATION

IHD-1	3.9 µH	± 15 %	ER	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER INFORMATION

I	H	D	1	E	R	3	R	9	L
MODEL				PACKING CODE		INDUCTANCE VALUE			TOL.

For technical questions contact magnetics@vishay.com
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