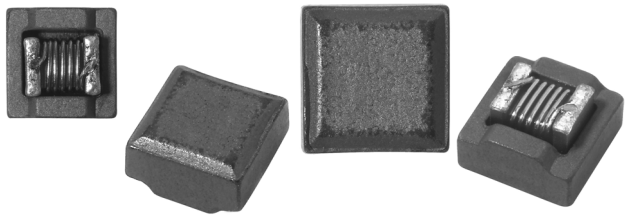
Surface Mount Wirewound Shielded Inductor



FEATURES

- Excellent solderability and resistance to soldering heat
- Suitable for reflow soldering
- High reliability and easy surface mount assembly
- Wide range of inductance values available
- Tape and reel packaging for automatic handling, 750/reel, EIA 481
- 100 % lead (Pb)-free and RoHS compliant

Pb-free
RoHS COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

IND. (µH) at 100 kHz	TOL.	Q MIN. at 1 MHz	SELF-RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	*RATED DC CURRENT (mA)
1.0	± 20 %	35	344	0.05	1000
1.5	± 20 %	35	260	0.06	800
1.8	± 20 %	35	225	0.09	680
2.7	± 20 %	38	185	0.14	650
3.9	± 20 %	38	175	0.26	650
4.7	± 20 %	38	160	0.35	500
5.6	± 20 %	38	150	0.40	450
6.8	± 20 %	38	120	0.60	400
10	± 20 %	38	100	0.95	250
15	± 20 %	38	35	1.15	220
22	± 20 %	40	26	1.40	180
33	± 20 %	45	20	1.60	150
39	± 20 %	45	14	1.85	130
47	± 20 %	45	14	2.50	110
68	± 20 %	45	12	3.80	100
82	± 20 %	45	9.0	4.20	100
100	± 20 %	45	7.0	5.80	80
120	± 20 %	45	6.0	6.20	60
150	± 20 %	40	5.6	7.50	50
220	± 20 %	40	4.0	10.0	50
330	± 20 %	40	3.8	11.5	50
470	± 20 %	35	2.0	16.5	50
560	± 20 %	35	2.0	18.0	30
680	± 20 %	30	1.8	24.0	30
820	± 20 %	30	1.5	26.0	30
1000	± 20 %	30	1.3	30.0	30

*For 15 °C rise

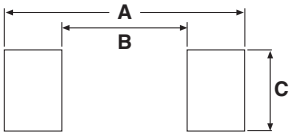
ELECTRICAL SPECIFICATIONS

Inductance Range: 1 µH to 1000 µH
Operating Temperature: - 40 °C to 85 °C
Storage Temperature: - 40 °C to 125 °C
Material: Ferrite with magnetic shield

TEST EQUIPMENT

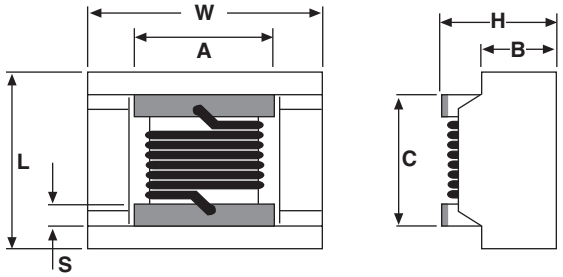
- Inductance and Q is measured in HP-4286A RF LCR meter with HP-16193 fixture
- SRF is measured in HP-8753E RF network analyzer
- DCR is measured in HP-4338B millohmeter

RECOMMENDED PATTERN



A	B	C
0.128 [3.25]	0.049 [1.25]	0.098 [2.50]

DIMENSIONS in inches [millimeters]



LENGTH (L)	WIDTH (W)	HEIGHT (H)	TERMINAL (S)
0.142 ± 0.008 [3.60 ± 0.2]	0.142 ± 0.008 [3.60 ± 0.2]	0.098 ± 0.008 [2.50 ± 0.2]	0.020 ± 0.004 [0.50 ± 0.1]

A	B	C
0.080 ± 0.004 [2.00 ± 0.1]	0.063 ± 0.008 [1.60 ± 0.2]	0.098 ± 0.004 [2.50 ± 0.1]

DESCRIPTION

ISC-1008	10 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

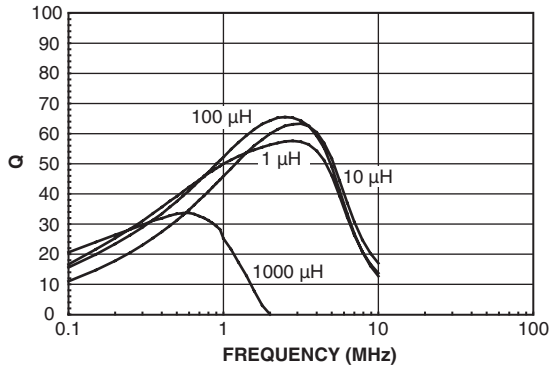
GLOBAL PART NUMBER

I	S	C	1	0	0	8	E	R	1	0	0	M
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

PERFORMANCE GRAPHS

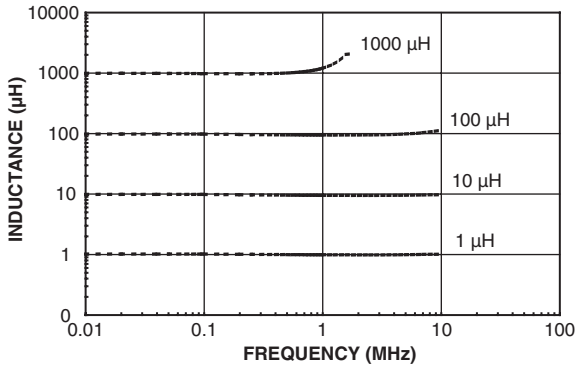
ISC-1008

Q vs FREQUENCY



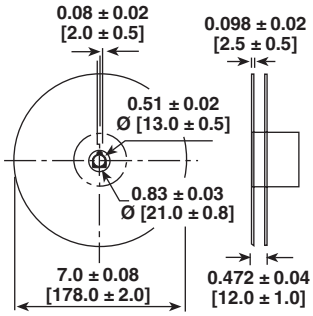
ISC-1008

INDUCTANCE vs FREQUENCY

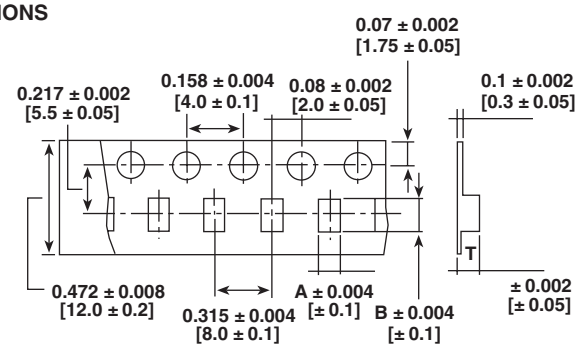


TAPE AND REEL SPECIFICATIONS in inches [millimeters]

REEL DIMENSIONS



TAPE DIMENSIONS



MODEL	UNITS PER REEL	MODEL	A	B	T
ISC-1008	750	**ISC-1008**	0.150 [3.8]	0.157 [4.0]	0.098 [2.5]

Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.