

WIRE WOUND INDUCTORS

Ferrite cores / General purpose

Series WI



OUTLINE

- ◆ These revolutionary, highly reliable wound chip inductors for automatic mounting have been developed in response to the trend toward high density in electronic equipment.
- ◆ With metal terminals and a body of heat resistant resin, these inductors offer many superior features.

FEATURES

- ◆ Very strong solderability by flow soldering, soldering iron or wave soldering.
- ◆ Highly accurate dimensions, can be mounted automatically.
- ◆ Terminals are highly resistant to pull forces.
- ◆ Highly resistant to mechanical shocks and pressure.
- ◆ Highly reliable in environments of sudden temperature change and humidity.
- ◆ Super Q characteristics and the broadest L selections among peers.

APPLICATIONS

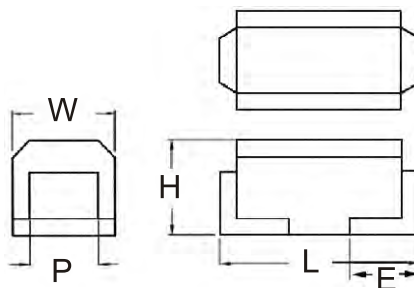
- ◆ Microtelevisions, liquid crystal televisions, video cameras, portable VCRs, car radios, car stereos, thin tape radios, television tuners, mobile telephones, radio and other electronic devices.

PRODUCT IDENTIFICATION

WI 25 X 22 2 K 680N
 a b c d e f g

- a : Type of Products - SMD Wire wound inductors with Ferrite Base
- b : Dimension - 16:201614, 18:252018, 25:322522, 32:453232, 50:565050
- c : Materials - X - Ferrite Base for General Purpose
- d : Thickness - 14 = 1.52mm, 18 = 1.8mm, 22 = 2.2mm, 32 = 3.2mm, 50 = 5.0mm
- e : Packing - PCS/REEL - 1 = 1000, 2 = 2000, G = 400, I = 500
- f : Tolerance - J : ±5% K : ±10% M : ±20%
- g : Inductance - 1N2 = 0.0012 μH, 100N = 0.1 μH, 1U = 1.0 μH, 1U2 = 1.2 μH, 1M = 1000 μH, 1M2 = 1200 μH

SHAPES & DIMENSIONS



Dimensions in mm

Type	Alias in mm	Alias in inch	L	W	H	P	E
WI25X22	322522	1210	3.2 ± 0.2	2.5 ± 0.2	2.2 ± 0.2	1.2 ± 0.4	0.6 ± 0.1
WI32X32	453232	1812	4.5 ± 0.3	3.2 ± 0.2	3.2 ± 0.2	1.4 ± 0.4	0.9 ± 0.2
WI50X50	565050	2220	5.6 ± 0.3	5.0 ± 0.2	5.0 ± 0.2	1.8 ± 0.3	1.3 ± 0.2

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ELECTRICAL CHARACTERISTICS

WI25X22

Part Number	L (μH)	Tolerance (±%)	Q min.	Test Frequency (MHz)	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
WI25X222K120N	0.12	K	30	25.2	500	0.22	450
WI25X222K150N	0.15	K	30	25.2	450	0.25	450
WI25X222K180N	0.18	K	30	25.2	400	0.28	450
WI25X222K220N	0.22	K	30	25.2	350	0.32	450
WI25X222K270N	0.27	K	30	25.2	320	0.36	450
WI25X222K330N	0.33	K	30	25.2	300	0.40	450
WI25X222K390N	0.39	K	30	25.2	250	0.45	450
WI25X222K470N	0.47	K	30	25.2	220	0.50	450
WI25X222K560N	0.56	K	30	25.2	180	0.55	450
WI25X222K680N	0.68	K	30	25.2	160	0.60	450
WI25X222K820N	0.82	K	30	25.2	140	0.65	450
WI25X222K1U	1	K	30	7.96	90	0.70	400
WI25X222K1U2	1.2	K	30	7.96	85	0.75	390
WI25X222K1U5	1.5	K	30	7.96	70	0.85	370
WI25X222K1U8	1.8	K	30	7.96	60	0.90	350
WI25X222K2U2	2.2	K	30	7.96	50	1.00	320
WI25X222K2U7	2.7	K	30	7.96	45	1.10	290
WI25X222K3U3	3.3	K	30	7.96	40	1.20	260
WI25X222K3U9	3.9	K	30	7.96	37	1.30	250
WI25X222K4U7	4.7	K	30	7.96	32	1.50	220
WI25X222K5U6	5.6	K	30	7.96	30	1.60	200
WI25X222K6U8	6.8	K	30	7.96	28	1.80	180
WI25X222K8U2	8.2	K	30	7.96	25	2.00	170
WI25X222K10U	10	K	30	2.52	23	2.10	150
WI25X222K12U	12	K	30	2.52	20	2.50	140
WI25X222K15U	15	K	30	2.52	19	2.80	130
WI25X222K18U	18	K	30	2.52	17	3.30	120
WI25X222K22U	22	K	30	2.52	16	3.70	110
WI25X222K27U	27	K	30	2.52	14	5.00	80
WI25X222K33U	33	K	30	2.52	13	5.60	70
WI25X222K39U	39	K	30	2.52	12	6.40	65
WI25X222K47U	47	K	30	2.52	10	7.00	60
WI25X222K56U	56	K	30	2.52	9	8.00	55
WI25X222K68U	68	K	30	2.52	9	9.00	50
WI25X222K82U	82	K	30	2.52	8	10.00	45
WI25X222K100U	100	K	20	0.796	7	10.00	40
WI25X222K120U	120	K	20	0.796	7	11.00	70
WI25X222K150U	150	K	20	0.796	6	15.00	65
WI25X222K180U	180	K	20	0.796	6	17.00	60
WI25X222K220U	220	K	20	0.796	5	21.00	50
WI25X222K270U	270	K	20	0.796	6	22.00	45
WI25X222K330U	330	K	20	0.796	5	34.00	40

Tolerance : J = ± 5% , K = ± 10%

Operating temperature range from -25°C to 85°C.

L/Q : HP4286A & HP16034E SRF : HP4291A

RDC : CH502BC/ HP4338B IDC : HP4284A & HP42841A

IDC : ΔL/L : -10%

WIRE WOUND INDUCTORS Ferrite cores / General purpose
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ELECTRICAL CHARACTERISTICS
WI32X32

Part Number	L (μH)	Tolerance (±%)	Q min.	Test Frequency (MHz)	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
WI32X32IM100N	0.1	M	28	25.2	700	0.44	450
WI32X32IM120N	0.12	M	30	25.2	500	0.22	450
WI32X32IM150N	0.15	M	30	25.2	450	0.25	450
WI32X32IM180N	0.18	M	30	25.2	400	0.28	450
WI32X32IM220N	0.22	M	30	25.2	350	0.32	450
WI32X32IM270N	0.27	M	30	25.2	320	0.36	450
WI32X32IM330N	0.33	M	30	25.2	300	0.4	450
WI32X32IM390N	0.39	M	30	25.2	250	0.45	450
WI32X32IM470N	0.47	M	30	25.2	220	0.5	450
WI32X32IM560N	0.56	M	30	25.2	180	0.55	450
WI32X32IM680N	0.68	M	30	25.2	160	0.6	450
WI32X32IM820N	0.82	M	30	25.2	140	0.67	450
WI32X32IK1U	1	K	50	7.96	100	0.5	450
WI32X32IK1U2	1.2	K	50	7.96	80	0.55	430
WI32X32IK1U5	1.5	K	50	7.96	70	0.6	410
WI32X32IK1U8	1.8	K	50	7.96	60	0.65	390
WI32X32IK2U2	2.2	K	50	7.96	55	0.7	380
WI32X32IK2U7	2.7	K	50	7.96	50	0.75	370
WI32X32IK3U3	3.3	K	50	7.96	45	0.8	355
WI32X32IK3U9	3.9	K	50	7.96	40	0.9	330
WI32X32IK4U7	4.7	K	50	7.96	35	1	315
WI32X32IK5U6	5.6	K	50	7.96	33	1.1	300
WI32X32IK6U8	6.8	K	50	7.96	27	1.2	285
WI32X32IK8U2	8.2	K	50	7.96	25	1.4	270
WI32X32IK10U	10	K	50	2.52	20	1.6	250
WI32X32IK12U	12	K	50	2.52	18	2	225
WI32X32IK15U	15	K	50	2.52	17	2.5	200
WI32X32IK18U	18	K	50	2.52	15	2.8	190
WI32X32IK22U	22	K	50	2.52	13	3.2	180
WI32X32IK27U	27	K	50	2.52	12	3.6	170
WI32X32IK33U	33	K	50	2.52	11	4	160
WI32X32IK39U	39	K	50	2.52	10	4.5	150
WI32X32IK47U	47	K	50	2.52	10	5	140
WI32X32IK56U	56	K	50	2.52	9	5.5	135
WI32X32IK68U	68	K	50	2.52	9	6	130
WI32X32IK82U	82	K	50	2.52	8	7	120
WI32X32IK100U	100	K	40	0.796	8	8	110
WI32X32IK120U	120	K	40	0.796	6	8	110
WI32X32IK150U	150	K	40	0.796	5	9	105
WI32X32IK180U	180	K	40	0.796	5	9.5	102
WI32X32IK220U	220	K	40	0.796	4	12	100
WI32X32IK270U	270	K	30	0.796	4	18	92
WI32X32IK330U	330	K	30	0.796	3.5	20	85
WI32X32IK390U	390	K	30	0.796	3	23	80
WI32X32IK470U	470	K	30	0.796	3	26	62
WI32X32IK560U	560	K	30	0.796	3	30	50
WI32X32IK680U	680	K	30	0.796	3	40	50
WI32X32IK820U	820	K	30	0.796	2.5	45	30
WI32X32IK1M	1000	K	30	0.796	2.5	50	30

Tolerance : K = ±10% M = ±20%

Operating temperature range from -25°C to 85°C.

L/Q : HP4285A & HP16034E SRF : HP4291A

RDC : CH502BC/ HP4338B IDC : HP4284A & HP42841A

IDC : ΔL/L : -10%

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Series WI

ELECTRICAL CHARACTERISTICS

WI50X50

Part Number	L (μ H)	Tolerance (\pm %)	Q min.	Test Frequency (MHz)	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
WI50X50G□1M2	1200	J,K	30	0.252	1.5	17	75
WI50X50G□1M5	1500	J,K	30	0.252	1.4	20	70
WI50X50G□1M8	1800	J,K	30	0.252	1.3	30	60
WI50X50G□2M2	2200	J,K	30	0.252	1.2	35	55
WI50X50G□2M7	2700	J,K	30	0.252	1.1	55	45
WI50X50G□3M3	3300	J,K	30	0.252	1	60	40
WI50X50G□3M9	3900	J,K	30	0.252	1	70	38
WI50X50G□4M7	4700	J,K	30	0.252	0.9	78	36
WI50X50G□5M6	5600	J,K	30	0.252	0.8	85	33
WI50X50G□6M8	6800	J,K	30	0.252	0.7	110	30
WI50X50G□8M2	8200	J,K	30	0.252	0.6	125	28
WI50X50G□10M	10000	J,K	20	0.0796	0.5	150	25

Tolerance: J = \pm 5% , K = \pm 10%

Operating temperature range from -25°C to 85°C.

L/Q : HP4285A & HP16034E SRF : HP4291A

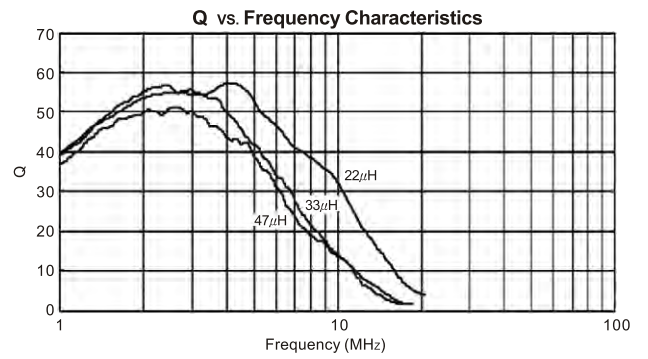
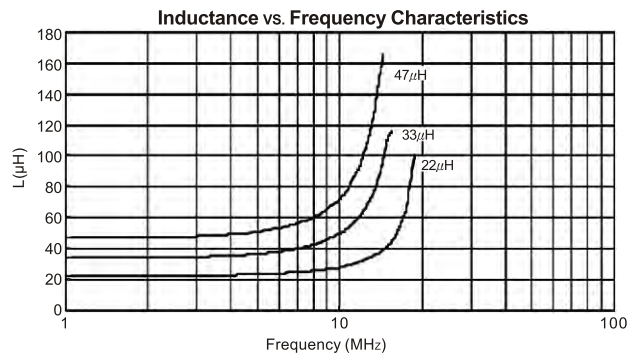
RDC : CH502BC/ HP4338B IDC : HP4284A & HP42841A

IDC : Δ L/L : -10%

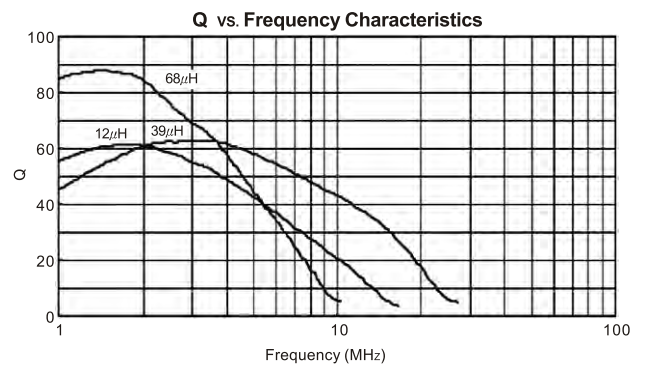
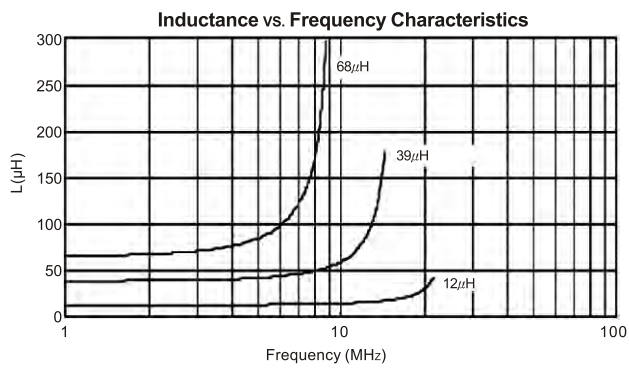
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**Series WI
CURVES**

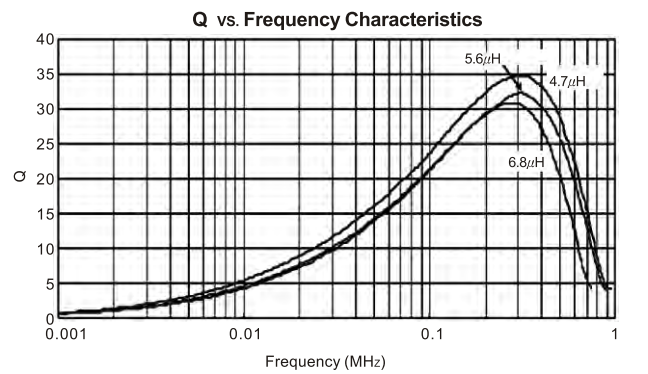
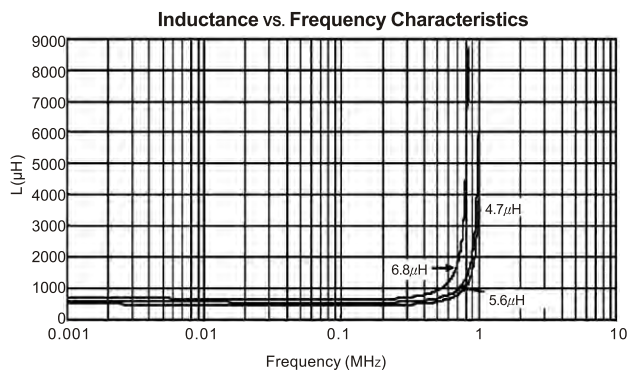
WI25X22



WI32X32



WI50X50

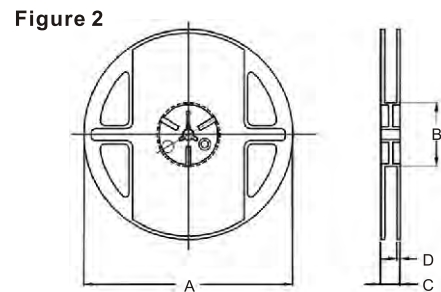
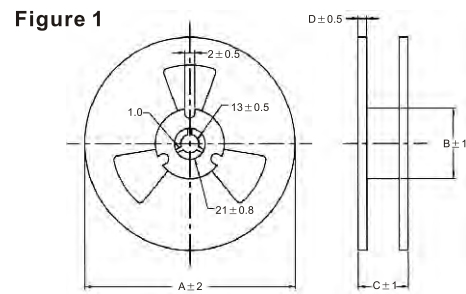


Series WI

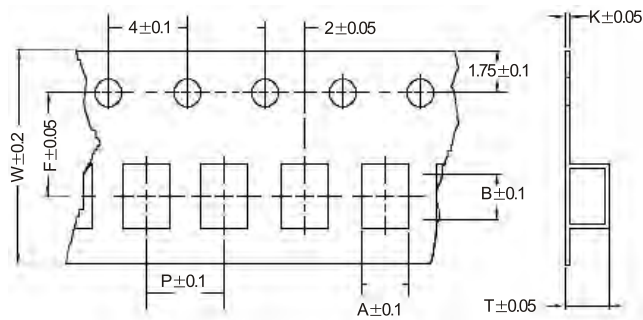
PACKAGING QUANTITY

Type	Alias in mm	Alias in inch	Bulk	PCS/REEL
WI25X22	322522	1210	✓	2,000
WI32X32	453232	1812	✓	500
WI50X50	565050	2220	✓	400

REEL DIMENSIONS



TAPE DIMENSIONS



Dimensions in mm

Type	Alias in mm	Alias in inch	A	B	T	W	P	F	K
WI25X22	322522	1210	2.96	3.60	2.40	8	4	3.5	0.23
WI32X32	453232	1812	3.30	5.00	3.50	12	8	5.5	0.30
WI50X50	565050	2220	5.35	6.10	5.50	16	12	7.5	0.35

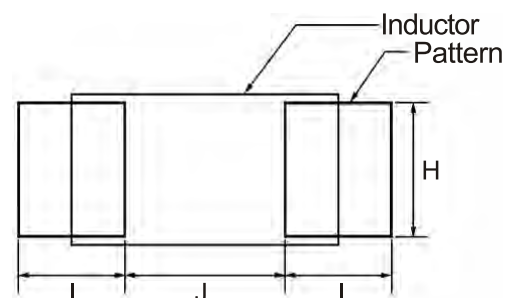
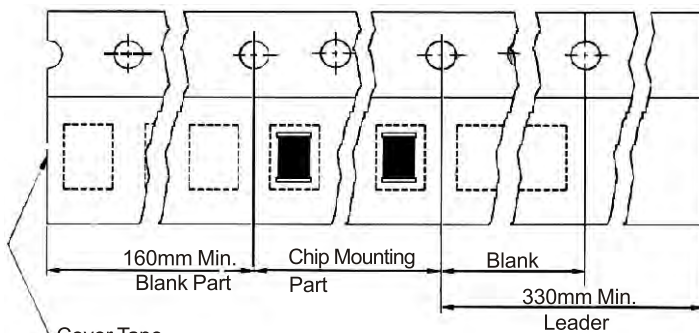
REEL DIMENSIONS

Dimensions in mm

Type	Alias in mm	Alias in inch	Fig	A	B	C	D
WI25X22	322522	1210	2	178	60	12	1.5
WI32X32	453232	1812	2	178	60	16	1.4
WI50X50	565050	2220	1	330	100	22	2.3

TAPE MATERIALS

RECOMMENDED PATTERN



Carrier tape: Polystyrene
Cover type: Polystyrene

PATTERN DIMENSIONS

Dimensions in mm

Type	Alias in mm	Alias in inch	I	J	H
WI25X22	322522	1210	1.20	1.60	2.00
WI32X32	453232	1812	1.50	3.00	2.80
WI50X50	565050	2220	2.00	4.00	4.50