

FWHF series-High Frequency (Rev. 4.0)**Features**

- * Can be used for high frequency bands up to GHz and stable inductance at high frequency.
- * The high self resonant frequency realizes high Q value.
- * Resin-coated surface enables excellent mounting.
- * Low DC resistance design is ideal for low loss.
- * High output and low power consumption.

Product Identification

FWHF **0805** - **2R2** **J**
 1 2 3 4

1. Product Code
2. Size Code
3. Inductance: 2.2uH
4. Tolerance: G=2%, J=±5%, K=±10%

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

Applications

- * For high-frequency applications including mobile phones, portable phones.
- * Base Station.
- * Wireless LAN/ mouse/ keyboard/ earphone.
- * Bluetooth.
- * Repeater. * Remote control.

Operating & Storage Condition :

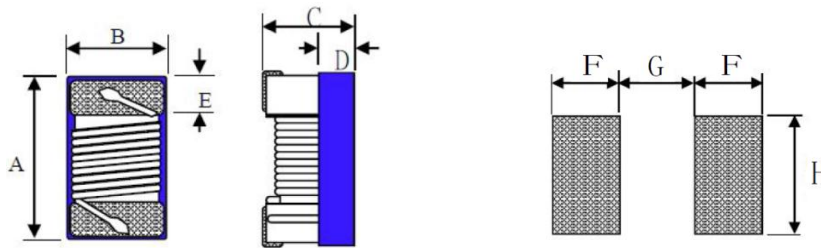
- * Operating Temp : -40 to +85 °C
- * Storage Temp : -40 to +85 °C
- * Storage Life Time: 12 Months @25 °C , RH 65%

Test Equipment :

- * HP4291A-Z, HP4284A, HP42841A- L, IDC, Q, RDC
- * HP8753D Setwork Analyzer- SRF

Standard Atmospheric Conditions :

- * Ambient Temp : 20±15 °C
- * Relative Humidity : 75±10%

Dimension & Recommended PAD Layout: [mm]

Size Code	A(max.)	B(max.)	C(max.)	D(ref.)	E	F	G	H
FWHF0402	1.27	0.76	0.61	0.15	0.23±0.1	0.50	0.46	0.66
FWHF0603	1.80	1.20	1.02	0.45	0.33	0.64	0.64	1.02
FWHF0805	2.40	1.65	1.45	0.65	0.44	1.02	0.76	1.78
FWHF1008	2.90	2.54	2.03	1.30	0.45±0.1	1.02	1.27	2.54

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Electrical Characteristics

P/N	Inductance (nH) MHz	Tolerance	Q (min.) MHz	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.	900MHz		1.7GHz	
							L typ.	Q typ.	L typ.	Q typ.
FWHF0402-1N0□	1.0/250	K	16/250	12.70	0.045	1360	1.02	77	1.02	69
FWHF0402-1N9□	1.9/250	J,K	16/250	11.30	0.070	1040	1.72	68	1.74	82
FWHF0402-2N0□	2.0/250	J,K	16/250	11.10	0.070	1040	1.93	54	1.93	75
FWHF0402-2N2□	2.2/250	J,K	19/250	10.80	0.070	960	2.19	59	2.23	100
FWHF0402-2N4□	2.4/250	J,K	15/250	10.50	0.070	790	2.24	51	2.27	68
FWHF0402-2N7□	2.7/250	J,K	16/250	10.40	0.120	640	2.23	42	2.25	61
FWHF0402-3N3□	3.3/250	J,K	19/250	7.00	0.066	840	3.10	65	3.12	87
FWHF0402-3N6□	3.6/250	J,K	19/250	6.80	0.066	840	3.56	45	3.62	71
FWHF0402-3N9□	3.9/250	J,K	19/250	5.80	0.066	840	3.89	50	4.00	75
FWHF0402-4N3□	4.3/250	J,K	18/250	6.00	0.091	700	4.19	47	4.30	71
FWHF0402-4N7□	4.7/250	J,K	15/250	4.70	0.130	640	4.55	48	4.68	68
FWHF0402-5N1□	5.1/250	J,K	20/250	4.80	0.083	800	5.15	56	5.25	82
FWHF0402-5N6□	5.6/250	J,K	20/250	4.80	0.083	760	5.16	54	5.28	81
FWHF0402-6N2□	6.2/250	J,K	20/250	4.80	0.083	760	6.16	52	6.37	76
FWHF0402-6N8□	6.8/250	J,K	20/250	4.80	0.083	680	6.56	63	6.93	78
FWHF0402-7N5□	7.5/250	J,K	22/250	4.80	0.104	680	7.91	60	8.22	88
FWHF0402-8N2□	8.2/250	J,K	22/250	4.40	0.104	680	8.50	57	8.85	84
FWHF0402-8N7□	8.7/250	J,K	18/250	4.10	0.200	480	8.78	54	9.21	73
FWHF0402-9N0□	9.0/250	J,K	22/250	4.16	0.104	680	9.07	62	9.53	78
FWHF0402-9N5□	9.5/250	J,K	18/250	4.00	0.200	480	9.42	54	9.98	69
FWHF0402-10N□	10/250	J,K	21/250	3.90	0.195	480	9.80	50	10.10	67
FWHF0402-11N□	11/250	J,K	24/250	3.68	0.120	640	10.70	52	11.20	78
FWHF0402-12N□	12/250	J,K	24/250	3.60	0.120	640	11.90	53	12.70	71
FWHF0402-13N□	13/250	J,K	24/250	3.45	0.210	440	13.40	51	14.60	57
FWHF0402-15N□	15/250	J,K	24/250	3.28	0.172	560	14.60	55	15.50	77
FWHF0402-16N□	16/250	J,K	24/250	3.10	0.220	560	16.60	46	18.80	47
FWHF0402-18N□	18/250	J,K	24/250	3.10	0.230	420	18.30	57	20.30	62
FWHF0402-19N□	19/250	J,K	24/250	3.04	0.202	480	19.10	50	21.10	67
FWHF0402-20N□	20/250	J,K	25/250	3.00	0.250	420	20.70	52	23.70	53
FWHF0402-22N□	22/250	J,K	25/250	2.80	0.300	400	23.20	53	26.80	53
FWHF0402-23N□	23/250	J,K	22/250	2.72	0.300	400	23.80	49	26.90	64
FWHF0402-24N□	24/250	J,K	25/250	2.70	0.300	400	25.10	51	29.50	50
FWHF0402-27N□	27/250	G,J,K	24/250	2.48	0.300	400	28.70	49	33.50	63
FWHF0402-30N□	30/250	J,K	25/250	2.35	0.350	400	31.10	46	38.50	39
FWHF0402-33N□	33/250	J,K	24/250	2.35	0.350	400	34.90	31	41.70	32
FWHF0402-36N□	36/250	J,K	24/250	2.32	0.440	320	39.50	44	48.40	53
FWHF0402-39N□	39/250	J,K	25/250	2.10	0.550	200	41.70	47	50.20	45
FWHF0402-40N□	40/250	J,K	24/250	2.24	0.440	320	39.00	44	47.40	33
FWHF0402-43N□	43/250	J,K	25/250	2.03	0.810	100	45.80	46	61.60	34
FWHF0402-47N□	47/250	J,K	20/250	2.10	0.830	150	50.00	38	55.80	37
FWHF0402-51N□	51/250	J,K	25/250	1.75	0.820	100	50.40	47	59.40	37
FWHF0402-56N□	56/250	J,K	22/250	1.76	0.970	100	57.40	49	72.40	40
FWHF0402-68N□	68/250	J,K	22/250	1.62	1.120	100	69.60	45	83.40	38
FWHF0402-75N□	75/250	J	22/250	1.50	1.300	80				
FWHF0402-R10□	100/250	J	22/250	1.16	2.000	30				
FWHF0402-R12□	120/250	J,K	20/250	>1.80	2.660	50				

* Tolerance: G=±2%, J=±5%, K=±10%

* Irms for a 15 °C rise above 25 °C ambient.

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Electrical Characteristics

P/N	Inductance (nH) MHz	Tolerance	Q (min.) MHz	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.	900MHz		1.7GHz		Color Coding
							L typ.	Q typ.	L typ.	Q typ.	
FWHF0603-1N6□	1.6/250	J,K	24/250	12500	0.030	700	1.61	73	1.61	90	Red
FWHF0603-1N8□	1.8/250	J,K	16/250	12500	0.045	700	1.77	47	1.77	60	Black
FWHF0603-2N2□	2.2/250	J,K	13/250	12500	0.025	700	2.14	26	2.13	34	Yellow
FWHF0603-3N3□	3.3/250	J,K	30/250	5900	0.045	700	3.42	73.45	3.46	95	Blue
FWHF0603-3N6□	3.6/250	J,K	22/250	5900	0.063	700	3.68	64	3.73	83	Red
FWHF0603-3N9□	3.9/250	J,K	22/250	6900	0.080	700	3.90	50.11	3.94	67	Brown
FWHF0603-4N3□	4.3/250	J,K	22/250	5900	0.063	700	4.44	68	4.59	82	Orange
FWHF0603-4N7□	4.7/250	J,K	20/250	5800	0.085	700	4.65	58.79	4.75	75	Violet
FWHF0603-5N1□	5.1/250	J,K	20/250	5700	0.115	700	5.07	55	5.21	70	Green
FWHF0603-5N6□	5.6/250	J,K	20/250	5800	0.160	700	5.48	43.67	5.66	55	Black
FWHF0603-6N3□	6.3/250	J,K	26/250	5700	0.115	700	6.54	69	6.71	89	White
FWHF0603-6N8□	6.8/250	J,K	27/250	5800	0.125	700	6.89	62.87	7.08	82	Red
FWHF0603-7N5□	7.5/250	J,K	28/250	4800	0.115	700	7.57	65	7.84	86	Brown
FWHF0603-8N2□	8.2/250	J,K	30/250	4700	0.125	700	8.13	65.01	8.47	82	Orange
FWHF0603-8N7□	8.7/250	J,K	28/250	4600	0.109	700	8.76	64	9.22	76	Yellow
FWHF0603-9N1□	9.1/250	J,K	28/250	4600	0.120	700	9.21	62	9.77	76	Black
FWHF0603-9N5□	9.5/250	J,K	28/250	5400	0.145	700	9.79	62	10.58	69	Blue
FWHF0603-10N□	10/250	G,J,K	31/250	4800	0.145	700	10.36	69.22	10.81	91	Orange
FWHF0603-11N□	11/250	G,J,K	30/250	4000	0.145	700	11.22	68	11.80	86	Gray
FWHF0603-12N□	12/250	G,J,K	35/250	4000	0.140	700	12.37	69.26	13.22	83	Yellow
FWHF0603-15N□	15/250	G,J,K	35/250	4000	0.180	700	15.22	77	16.37	89	Green
FWHF0603-16N□	16/250	G,J,K	34/250	3300	0.170	700	16.60	79.11	18.38	80	White
FWHF0603-18N□	18/250	G,J,K	35/250	3100	0.180	700	18.44	76	20.05	80	Blue
FWHF0603-19N□	19/250	G,J,K	35/250	3000	0.190	700	19.71	73.77	23.35	63	Brown
FWHF0603-20N□	20/250	G,J,K	38/250	3000	0.180	700	20.50	80	23.27	87	Red
FWHF0603-22N□	22/250	G,J,K	38/250	3000	0.190	700	22.66	78.78	25.67	84	Violet
FWHF0603-23N□	23/250	G,J,K	38/250	2850	0.205	700	24.19	71	28.48	73	Orange
FWHF0603-24N□	24/250	G,J,K	36/250	2650	0.205	700	25.74	70.93	31.01	63	Black
FWHF0603-25N□	25/250	G,J,K	38/250	2800	0.210	600	25.93	85	29.73	90	Yellow
FWHF0603-27N□	27/250	G,J,K	0/250 50/25	2800	0.220	600	29.03	59.83	37.43	46	Gray
FWHF0603-30N□	30/250	G,J,K	37/250	2250	0.220	600	32.91	69	41.66	60	Brown
FWHF0603-33N□	33/250	G,J,K	40/250	2300	0.220	600	35.72	61.57	47.39	50	White
FWHF0603-36N□	26/250	G,J,K	37/250	2080	0.250	600	39.45	64	50.92	60	Red
FWHF0603-39N□	39/250	G,J,K	40/250	2200	0.260	600	42.71	61.22	58.42	48	Black
FWHF0603-43N□	43/250	G,J,K	38/250	2000	0.280	600	47.21	63	64.17	53	Orange
FWHF0603-47N□	47/250	G,J,K	38/200	2000	0.280	600	51.82	52.98	77.03	39	Brown
FWHF0603-51N□	51/250	G,J,K	38/250	2130	0.300	600	59.27	51	103.80	24	Violet
FWHF0603-56N□	56/250	G,J,K	38/200	1900	0.310	600	64.38	51.47	108.10	29	Red
FWHF0603-62N□	62/250	G,J,K	37/200	1800	0.330	600	73.30	43	156.50	16	Gray
FWHF0603-68N□	68/250	G,J,K	37/200	1700	0.340	600	80.23	44.33	174.00	18	Orange
FWHF0603-72N□	72/250	G,J,K	34/150	1700	0.490	400	86.67	41	212.90	16	Yellow
FWHF0603-79N□	79/250	G,J,K	34/150	1700	0.500	400	87.02	44.18			White
FWHF0603-82N□	82/250	G,J,K	34/150	1700	0.540	400	101.20	38	300.60	12	Green
FWHF0603-91N□	91/250	G,J,K	34/150	1500	0.560	400	111.80	49.36			Brown
FWHF0603-R10□	100/150	G,J,K	34/150	1400	0.580	400	126.90	36			Blue
FWHF0603-R11□	110/150	G,J,K	32/150	1350	0.610	300	146.80	34.58			Violet
FWHF0603-R12□	120/150	G,J,K	32/150	1300	0.650	300	166.80	29			Gray
FWHF0603-R13□	130/150	G,J,K	32/150	1200	0.750	280	180.10	36.93			Orange
FWHF0603-R15□	150/150	G,J,K	28/150	990	0.920	280	234.90	22			White
FWHF0603-R17□	170/100	G,J,K	25/100	990	1.150	240	228.40	34.96			Yellow
FWHF0603-R18□	180/100	G,J,K	25/100	990	1.250	240	289.10	20			Black
FWHF0603-R19□	190/100	G,J,K	25/100	990	1.350	200	279.10	30.83			Green
FWHF0603-R20□	200/100	G,J,K	25/100	990	1.500	200					Orange
FWHF0603-R22□	220/100	G,J,K	25/100	900	1.600	250					Brown
FWHF0603-R24□	240/100	G,J,K	25/100	900	1.900	200					Violet
FWHF0603-R27□	270/100	G,J,K	25/100	900	2.000	170					Red
FWHF0603-R33□	330/100	G,J,K	25/100	900	2.750	100					Blue
FWHF0603-R34□	34/100	G,J,K	25/100	900	2.900	100					Gray
FWHF0603-R39□	390/100	G,J,K	25/100	900	3.150	100					Yellow
FWHF0603-R47□	470/100	G,J,K	25/100	750	4.000	80					Green

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* Irms for a 15 °C rise above 25 °C ambient.

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Electrical Characteristics

P/N	Inductance (nH) MHz	Tolerance	Q (min.) MHz	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.	Color Coding
FWHF0805-2N8□	2.8/250	J,K	55/1500	7900	0.06	800	Gray
FWHF0805-3N0□	3.0/250	J,K	55/1500	7900	0.08	800	White
FWHF0805-5N1□	5.1/250	J,K	60/1000	5800	0.06	600	Yellow
FWHF0805-5N6□	5.6/250	J,K	65/1000	5500	0.08	600	Orange
FWHF0805-6N2□	6.2/250	J,K	50/1000	5500	0.11	800	Violet
FWHF0805-6N8□	6.8/250	J,K	50/1000	5500	0.11	600	Brown
FWHF0805-7N5□	7.5/250	J,K	50/1000	4500	0.14	600	Green
FWHF0805-8N2□	8.2/250	J,K	50/1000	4700	0.16	600	Red
FWHF0805-8N7□	8.7/250	J,K	50/1000	4700	0.23	600	Violet
FWHF0805-10N□	10/250	G,J,K	60/500	4200	0.10	600	Blue
FWHF0805-12N□	12/250	G,J,K	50/500	4000	0.15	600	Orange
FWHF0805-15N□	15/250	G,J,K	50/500	3400	0.17	700	Yellow
FWHF0805-18N□	18/250	G,J,K	50/500	3300	0.20	600	Green
FWHF0805-22N□	22/250	G,J,K	55/500	2600	0.22	500	Blue
FWHF0805-24N□	24/250	G,J,K	50/500	2000	0.22	500	Gray
FWHF0805-27N□	27/250	G,J,K	55/500	2500	0.25	500	Violet
FWHF0805-33N□	33/250	G,J,K	60/500	2050	0.27	500	Gray
FWHF0805-36N□	36/250	G,J,K	55/500	1700	0.27	500	Orange
FWHF0805-39N□	39/250	G,J,K	60/500	2000	0.29	500	White
FWHF0805-43N□	43/200	G,J,K	60/500	1650	0.34	500	Yellow
FWHF0805-47N□	47/200	G,J,K	60/500	1650	0.31	700	Black
FWHF0805-56N□	56/200	G,J,K	60/500	1550	0.34	500	Brown
FWHF0805-68N□	68/200	G,J,K	60/500	1450	0.38	500	Red
FWHF0805-75N□	75/200	G,J,K	60/500	1400	0.40	400	Violet
FWHF0805-82N□	82/150	G,J,K	65/500	1300	0.42	400	Orange
FWHF0805-91N□	91/150	G,J,K	65/500	1200	0.48	400	Black
FWHF0805-R10□	100/150	G,J,K	65/500	1200	0.46	400	Yellow
FWHF0805-R11□	110/150	G,J,K	50/250	1000	0.48	400	Brown
FWHF0805-R12□	120/150	G,J,K	50/250	1100	0.51	400	Green
FWHF0805-R15□	150/100	G,J,K	50/250	920	0.56	400	Blue
FWHF0805-R16□	160/100	G,J,K	50/250	900	0.60	400	Gray
FWHF0805-R18□	180/100	G,J,K	50/250	870	0.64	400	Violet
FWHF0805-R20□	200/100	G,J,K	50/250	865	0.68	400	Red
FWHF0805-R22□	220/100	G,J,K	50/250	850	0.70	400	Gray
FWHF0805-R24□	240/100	G,J,K	44/250	690	1.00	350	Red
FWHF0805-R25□	250/100	G,J,K	48/250	680	1.00	350	Yellow
FWHF0805-R27□	270/100	G,J,K	48/250	650	1.00	350	White
FWHF0805-R33□	330/100	G,J,K	48/250	750	1.40	310	Black
FWHF0805-R36□	360/100	J,K	48/250	650	1.45	300	Orange
FWHF0805-R39□	390/100	G,J,K	48/250	560	1.50	290	Brown
FWHF0805-R43□	430/50	G,J,K	33/100	430	1.70	270	Blue
FWHF0805-R47□	470/50	G,J,K	30/100	375	1.76	250	Violet
FWHF0805-R56□	560/25	G,J,K	23/50	340	1.90	230	Orange
FWHF0805-R62□	620/25	G,J,K	23/50	220	2.20	210	White
FWHF0805-R68□	680/25	G,J,K	23/50	188	2.20	190	Green
FWHF0805-R75□	750/25	G,J,K	23/50	200	2.30	180	Violet
FWHF0805-R82□	820/25	G,J,K	23/50	215	2.35	180	Blue
FWHF0805-R91□	910/25	J,K	22/50	210	2.40	180	Yellow
FWHF0805-1R0□	1000/25	G,J,K	22/50	200	2.45	180	Violet
FWHF0805-1R2□	1200/7.9	G,J,K	16/7.9	160	2.45	170	Green
FWHF0805-1R5□	1500/7.9	G,J,K	16/7.9	120	2.50	170	Black
FWHF0805-1R8□	1800/7.9	G,J,K	16/7.9	80	2.50	170	Brown
FWHF0805-2R2□	2200/7.9	G,J,K	16/7.9	60	2.70	160	Red
FWHF0805-2R7□	2700/7.9	G,J,K	16/7.9	50	3.80	160	Orange

* Tolerance: G=±2%, J=±5%, K=±10%

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* Irms for a 15 °C rise above 25 °C ambient.