■

Wire Wound Chip Ferrite Inductors

Feature

* Minature Size,Suitable For SMT.
* Nusing Terminal Electrode Structure To Restrain The Parasitic Component Effect Quite Caused By Lead.
* Q Low DC Resistance , High Current And High Iinductance.
* Execellent In Solderability And Heat Resistance.

Application

* Wireless Communication Equipment And Various Types Of General Electronic Equipment.
* , Bluetooth,Audio Circuit.
* Other Electronic Equipment.

Part Number

FHW	0805	UF	R68	J	S	T

Product Typel

FHW

FHW: Wire Wound Inductor Series

Dimensions 0603(1.6×0.8mm) 0805(2.0×1.2mm) 1008 2.5×2.0mm 1210 3.2×2.5mm 1812(4.5×3.2mm)

Material Code UF/IF--- Ferrite core

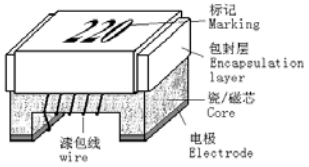
Inductance 010=10nH R10=100nH 1R0=1.0μH 100=10μH 101=100μH 102=1mH

Tolerance J---±5% K---±10% M---±20%

Terminal S--- Tin

Packaging T: Tape & Reel B: Bulk

Product Structure



Dimension

Unit mm inch

Size	L (Max)	W (Max)	T (Max)	A	B
1608 (0603)	1.78 (0.070)	1.10 (0.043)	0.95 (0.037)	0.76 (0.030)	0.30 (0.012)
2012 (0805)	2.30 (0.091)	1.70 (0.067)	1.52 (0.060)	1.27 (0.050)	0.50 (0.020)
2520 (1008)	2.92 (0.115)	2.79 (0.110)	2.10 (0.083)	2.00 (0.079)	0.50 (0.020)
3225 (1210)	3.50 (0.138)	2.90 (0.114)	2.25 (0.088)	2.10 (0.083)	0.50 (0.020)
4532 (1812)	4.80 (0.189)	3.40 (0.134)	3.15 (0.124)	2.53 (0.100)	0.65 (0.026)

ELECTRICAL CHARACTERISTICS

0603 Type

Part NO	Inductance (μH)	Tolerance	Q Q (Min)	SRF (MHZ) Min	Rdc Ω Max	Idc(mA) Max
FHW0603UF047□ST	0.047@7.9MHz	10,5	12@7.9MHz	1500	0.100	1000
FHW0603UF072□ST	0.072@7.9MHz	10,5	12@7.9MHz	1400	0.120	1000
FHW0603UFR82□ST	0.082@7.9MHz	10,5	12@7.9MHz	1300	0.100	1000
FHW0603UFR10□ST	0.10@7.9MHz	10,5	12@7.9MHz	1150	0.130	1000
FHW0603UFR12□ST	0.12@7.9MHz	10,5	12@7.9MHz	1100	0.160	1000
FHW0603UFR15□ST	0.15@7.9MHz	10,5	12@7.9MHz	1050	0.150	1000
FHW0603UFR18□ST	0.18@7.9MHz	10,5	12@7.9MHz	950	0.150	1000
FHW0603UFR22□ST	0.22@7.9MHz	10,5	12@7.9MHz	900	0.160	900
FHW0603UFR27□ST	0.27@7.9MHz	10,5	12@7.9MHz	775	0.300	700
FHW0603UFR33□ST	0.33@7.9MHz	10,5	12@7.9MHz	725	0.320	600
FHW0603UFR39□ST	0.39@7.9MHz	10,5	12@7.9MHz	620	0.510	500
FHW0603UFR47□ST	0.47@7.9MHz	10,5	12@7.9MHz	540	0.620	[redacted]
FHW0603UFR56□ST	0.56@7.9MHz	10,5	12@7.9MHz	600	0.650	400

0805 Type

Part NO	Inductance (μH)	Tolerance	Q Q (Min)	SRF (MHZ) Min	Rdc Ω Max	Idc(mA) Max
FHW0805UFR12□ST	0.12@25.2MHz	10,5	15@25.2MHz	1000	0.200	800
FHW0805UFR15□ST	0.15@25.2MHz	10,5	15@25.2MHz	600	0.300	600
FHW0805UFR18□ST	0.18@25.2MHz	10,5	15@25.2MHz	550	0.250	750
FHW0805UFR22□ST	0.22@25.2MHz	10,5	15@25.2MHz	500	0.300	700
FHW0805UFR27□ST	0.27@25.2MHz	10,5	15@25.2MHz	550	0.350	550
FHW0805UFR33□ST	0.33@25.2MHz	10,5	15@25.2MHz	500	0.400	500
FHW0805UFR39□ST	0.39@25.2MHz	10,5	12@25.2MHz	500	0.350	550
FHW0805UFR47□ST	0.47@25.2MHz	10,5	10@25.2MHz	450	0.400	500
FHW0805UFR56□ST	0.56@25.2MHz	10,5	10@25.2MHz	450	0.400	500
FHW0805UFR68□ST	0.68@25.2MHz	10,5	10@25.2MHz	400	0.600	500
FHW0805UFR75□ST	0.75@25.2MHz	10,5	10@25.2MHz	400	0.700	500
FHW0805UFR82□ST	0.82@25.2MHz	10,5	10@25.2MHz	400	0.800	500
FHW0805UF1R0□ST	1.0@7.96MHz	10,5	10@7.96MHz	360	1.000	430
FHW0805UF1R2□ST	1.2@7.96MHz	10,5	10@7.96MHz	350	1.150	410
FHW0805UF1R5□ST	1.5@7.96MHz	10,5	10@7.96MHz	300	1.200	400
FHW0805UF1R8□ST	1.8@7.96MHz	10,5	10@7.96MHz	200	1.350	380
FHW0805UF2R2□ST	2.2@7.96MHz	10,5	10@7.96MHz	170	1.500	350
FHW0805UF2R7□ST	2.7@7.96MHz	10,5	10@7.96MHz	100	1.700	320
FHW0805UF3R3□ST	3.3@7.96MHz	10,5	10@7.96MHz	90	1.800	300
FHW0805UF3R9□ST	3.9@7.96MHz	10,5	10@7.96MHz	90	1.950	280
FHW0805UF4R7□ST	4.7@7.96MHz	10,5	10@7.96MHz	85	2.050	250
FHW0805UF5R6□ST	5.6@7.96MHz	10,5	10@7.96MHz	70	2.300	240
FHW0805UF6R8□ST	6.8@7.96MHz	10,5	10@7.96MHz	55	2.600	220
FHW0805UF7R5□ST	7.5@7.96MHz	10,5	10@7.96MHz	55	2.800	210
FHW0805UF8R2□ST	8.2@7.96MHz	10,5	10@7.96MHz	50	3.000	180
FHW0805UF100□ST	10@2.52MHz	10,5	8@2.52MHz	30	3.200	150
FHW0805UF120□ST	12@2.52MHz	10,5	8@2.52MHz	17	3.500	110
FHW0805UF150□ST	15@2.52MHz	10,5	8@2.52MHz	16	4.200	100
FHW0805UF180□ST	18@2.52MHz	10,5	8@2.52MHz	15	4.500	95
FHW0805UF220□ST	22@2.52MHz	10,5	8@2.52MHz	14	6.000	80

1008Type

Part NO	Inductance (μH)	Tolerance	Q Q (Min)	SRF (MHZ) Min	Rdc Ω Max	Idc(mA) Max
FHW1008IFR12□ST	0.12@25.2MHz	10,5	12@25.2MHz	850	0.15	800
FHW1008IFR39□ST	0.39@25.2MHz	10,5	12@25.2MHz	480	0.29	600
FHW1008IFR47□ST	0.47@25.2MHz	10,5	20@25.2MHz	380	0.30	600
FHW1008IFR56□ST	0.56@25.2MHz	10,5	12@25.2MHz	330	0.42	600

FHW1812IFR82□ST	0.82@25.2MHz	10,5	10@25.2MHz	250	0.20	1000
FHW1812IF1R0□ST	1.0@7.96MHz	10,5	15@7.96MHz	200	0.22	1000
FHW1812IF1R2□ST	1.2@7.96MHz	10,5	15@7.96MHz	200	0.35	1000
FHW1812IF1R5□ST	1.5@7.96MHz	10,5	15@7.96MHz	180	0.32	1000
FHW1812IF1R8□ST	1.8@7.96MHz	10,5	15@7.96MHz	160	0.35	950
FHW1812IF2R2□ST	2.2@7.96MHz	10,5	15@7.96MHz	150	0.37	900
FHW1812IF2R7□ST	2.7@7.96MHz	10,5	15@7.96MHz	145	0.37	850
FHW1812IF3R3□ST	3.3@7.96MHz	10,5	15@7.96MHz	140	0.48	800
FHW1812IF3R9□ST	3.9@7.96MHz	10,5	15@7.96MHz	135	0.60	750
FHW1812IF4R7□ST	4.7@7.96MHz	10,5	15@7.96MHz	120	1.00	700
FHW1812IF5R6□ST	5.6@7.96MHz	10,5	15@7.96MHz	110	0.55	650
FHW1812IF6R8□ST	6.8@7.96MHz	10,5	15@7.96MHz	80	0.80	600
FHW1812IF8R2□ST	8.2@7.96MHz	10,5	15@7.96MHz	70	0.85	600
FHW1812IF100□ST	10@2.52MHz	10,5	10@2.52MHz	60	1.00	550
FHW1812IF120□ST	12@2.52MHz	10,5	10@2.52MHz	55	1.10	550
FHW1812IF150□ST	15@2.52MHz	10,5	10@2.52MHz	35	1.20	500
FHW1812IF180□ST	18@2.52MHz	10,5	10@2.52MHz	29	1.20	500
FHW1812IF220□ST	22@2.52MHz	10,5	10@2.52MHz	20	1.30	450
FHW1812IF270□ST	27@2.52MHz	10,5	10@2.52MHz	20	1.50	400
FHW1812IF330□ST	33@2.52MHz	10,5	10@2.52MHz	18	1.70	350
FHW1812IF390□ST	39@2.52MHz	10,5	10@2.52MHz	14	1.80	350
T	47@2.52MHz	10,5	10@2.52MHz	10	2.00	300
T	56@2.52MHz	10,5	10@2.52MHz	10	2.20	290
T	68@2.52MHz	10,5	10@2.52MHz	5.4	2.40	260
T	82@2.52MHz	10,5	10@2.52MHz	5.2	2.80	240
FHW1812IF101□ST	100@0.796MHz	10,5	10@0.796MHz	4	3.00	220
FHW1812IF121□ST						

Reliability Test Method

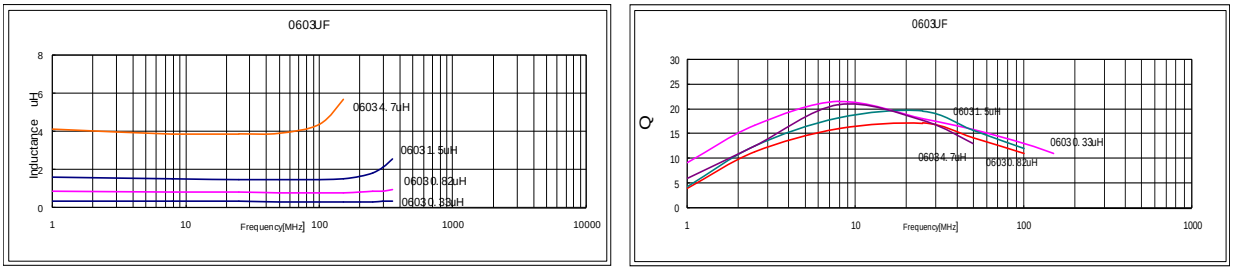
No.	Items	Requirements	Test Methods and Remarks
1			

5	Low temperature resistance	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	FHW-UF/IF -40± 2 24 1000 0 h FHW-UF/IF series shall be subjected to-40±2 for 1000 24 0 h
6	High temperature resistance	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	FHW-UF/IF +85± 5 24 1000 0 h FHW-UF/IF series shall be subjected to +85±5 for1000 24 0 h
7	Temperature Shock	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	FHW-UF/IF +85 30 ←→ -40 30 100 FHW-UF/IF series +85 30minutes ←→ -40 30minutes 100 Cycles.
8	High temperature load	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	FHW-UF/IF 85± 2 24 1000 0 h FHW-UF/IF series shall be store at 85±2 for 1000 24 0 h with rated current applied.
9	Static Humidity	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	90% 95%, 60±2 24 1000 0 h Inductors shall be subjected to 90% 95%RH. at 60±2 24 for 1000 0 h
10	Bending strength	No visible mechanical damage.	Install the inductor on the test substrate; Apply force in the vertical direction (as shown below). 1± 0.5 mm/s 2± 0.2 mm 20± 1 s The epoxy plate should bend down to 2± 0.2 mm at the bending rate of 1± 0.5

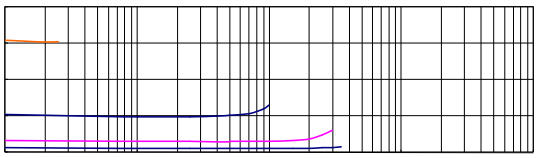
			mm/s Keep time 20± 1 sec.
11	Solvent Resistance	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	23±5 5±0.5 Soak in the element 23±5 in isopropyl alcohol solution, keep 5±0.5 min.

Product Characteristic Curve

FHW0603 Type.

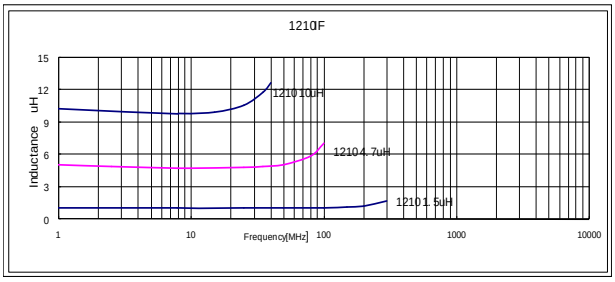


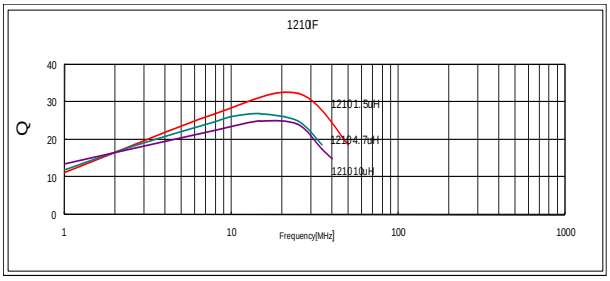
FHW0805 Type.



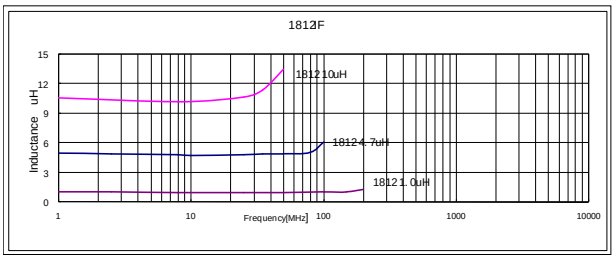
FHW1008 Type.

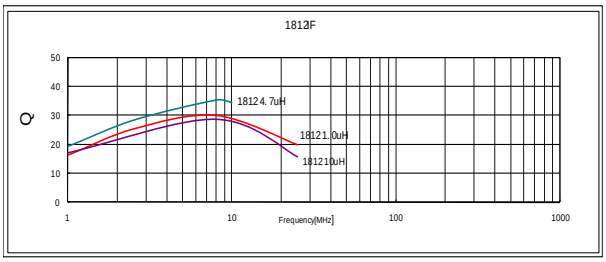
FHW1210 Type.





FHW1812 Type.





Packaging

* Taping drawings

* Reel dimensions (Unit:mm)

Part NO.	ΦA typ.	ΦB typ.	ΦC typ.	D typ.

* Leader and blank portion

* Taping dimensions (Unit: mm)

Paper tape

	×10	A0	B0	T
	0	1.20	1.85	1.00

1210	8.00	1.75	3.50	1.55	0.65	4	4	2	40	0.23	2.96	3.60	2.40
1812	12.00	1.75	5.50	1.55	1.50	4	8	2	40	0.25	3.22	4.82	2.98

* Packaging number (Unit: Pcs)

Size		0603	0805	1008	1210	1812
Per Reel		4000	3000	2000	2000	2000
Per Box	3	12000	9000	6000	6000	------
	5	20000	15000	10000	10000	10000
Per Case	1.5	60000	45000	30000	30000	------
	2	80000	60000	40000	40000	------
	3	120000	90000	60000	60000	------
	4	160000	120000	80000	80000	------
	6	240000	180000	120000	120000	------
	3	------	------	------	------	30000