

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 linductance.
- * Excellent In Solderability And Heat Resistance.

Application

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

Part Number

FHD 0402 UF R68 J S T

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Product Typel

FHW

FHW: Wire Wound Inductor Series

Dimensions 0402(1.0×0.5mm) 0603(1.6×0.8mm)

Material Code PF/IF--- Ferrite core

Inductance 010=10nH R10=100nH 1R0=1.0μH 100=10μH

Tolerance J---±5% K---±10% M---±20%

Terminal S--- Tin

Ç n

Dimension

Unit mm inch

Size	L (Max)	W (Max)	T (Max)	A	B
1005 (0402)	1.19 (0.047)	0.66 (0.026)	0.60 (0.024)	0.50 (0.020)	0.23 (0.009)
1608 (0603)	1.80 (0.071)	1.20 (0.047)	1.10 (0.043)	0.90 (0.035)	0.35 (0.014)

ELECTRICAL CHARACTERISTICS

0402IF Type

Part NO	Inductance (nH)	Tolerance	SRF (MHZ) Min	Rdc Max	Idc(mA) Max
FHD0402IFR16 ST	160@100MHz	J,K	900	0.33	480
FHD0402IFR18 ST	180@100MHz	J,K	1000	0.312	560
FHD0402IFR22 ST	220@100MHz	J,K	1400	0.47	450
FHD0402IFR27 ST	270@100MHz	J,K	730	0.52	420
FHD0402IFR33 ST	330@100MHz	J,K	520	0.56	390
FHD0402IFR39 ST	390@100MHz	J,K	450	0.62	370
FHD0402IFR47 ST	470@10MHz	J,K	380	0.66	350
FHD0402IFR56 ST	560@10MHz	J,K	300	0.71	300

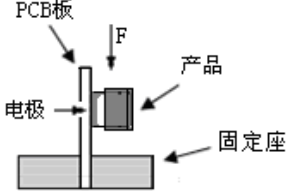
0603PF Type

Part NO	Inductance (μH)	Tolerance	SRF (MHZ) Min	Rdc Max	Idc(mA) Max
FHD0603PF1R0 ST	1.0@7.9MHz	K,M	200	0.32	860
FHD0603PF1R5 ST	1.5@7.9MHz	K,M	100	0.40	720
FHD0603PF1R8 ST	1.8@7.9MHz	K,M	95	0.56	640
FHD0603PF2R2 ST	2.2@7.9MHz	K,M	80	0.73	600
FHD0603PF4R7 ST	4.7@7.9MHz	K,M	40	1.26	400
FHD0603PF5R6 ST	5.6@7.9MHz	K,M	37	1.70	380
FHD0603PF6R8 ST	6.8@7.9MHz	K,M	34	1.95	340
FHD0603PF100 ST	10@2.5MHz	K,M	25	2.40	280
FHD0603PF150 ST	15@2.5MHz	K,M	23	3.40	240
FHD0603PF220 ST	22@2.5MHz	K,M	19	4.70	200

0603IFType

Part NO	Inductance (μH)	Tolerance	Q Q (Min)	SRF (MHZ) Min	Rdc Max	

Reliability Test Method

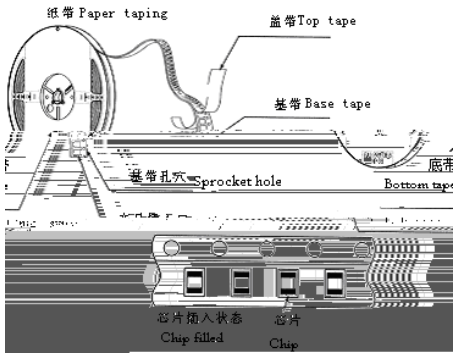
No.	Items	Requirements	Test Methods and Remarks										
1	Solder ability	No visible mechanical damage. Electrode surface solder coverage. FHW-UC/HC series 80%	245±3 96.5%Sn/3.0%Ag/0.5%Cu 3±0.3s Dip pads in flux and dip in solder pot(96.5Sn/3.0Ag/0.5Cu)at 245±3 for 3±0.3s.										
2	Resistance to Soldering	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	260±5 96.5%Sn/ 3.0%Ag/0.5%Cu 10±1s Dip pads in flux and dip in solder pot(96.5Sn/3.0Ag/0.5Cu)at 260±5 for 10±1s.										
3	Vibration	No visible mechanical damage. ±5 Inductance shall not change more than ±5%; Q ±10% Q shall not change more than±10 .	1.5mm 10~55Hz (X Y Z) 2 Inductors shall be subjected to vibration of 1.5mm amplitude frequency 10~55Hz (10Hz to 55Hz to 10Hz in a period of 1 minute) for 2h in each of three(X Y Z) axes.										
4	Adhesion of electrode	The end electrode did not fall off after the test. No visible mechanical damage.	PCB Weld the product on the PCB board, and apply force as shown in the diagram, direction and requirement.  <table border="1" data-bbox="986 1617 1455 1861"> <tr> <td>Size</td> <td></td> </tr> <tr> <td>0402IF Series</td> <td>3 N</td> </tr> <tr> <td>0603PF/IF Series</td> <td>7 N</td> </tr> <tr> <td colspan="2">Keep time: (10±1)s</td> </tr> <tr> <td colspan="2">Speed: 1.0 mm/s.</td> </tr> </table>	Size		0402IF Series	3 N	0603PF/IF Series	7 N	Keep time: (10±1)s		Speed: 1.0 mm/s.	
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0402IF Series	3 N												
0603PF/IF Series	7 N												
Keep time: (10±1)s													
Speed: 1.0 mm/s.													

5	Low temperature resistance	<p>No visible mechanical damage.</p> <p style="text-align: center;">±5</p> <p>Inductance shall not change more than ±5%;</p> <p>Q ±10%</p> <p>Q shall not change more than ±10% .</p>	<p>FHD-PF/IF -40±2</p> <p style="text-align: center;">+24</p> <p>1000 \dot{E}0 h</p> <p>FHD-PF/IF series shall be subjected to -40±2 for 1000</p> <p style="text-align: center;">+24</p> <p>\dot{E}0 h</p>
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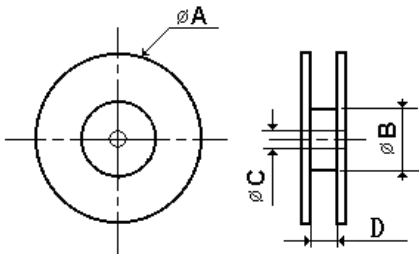
6	High temperature resistance	<p>No visible mechanical damage.</p> <p style="text-align: center;">±5</p> <p>Inductance shall not change more than ±5%;</p> <p>Q ±10%</p> <p>Q shall not change more than ±10% .</p>	<p>FHD-PF/IF -40±2</p> <p style="text-align: center;">+24</p> <p>1000 \dot{E}0 h</p> <p>FHD-PF/IF series shall be subjected to -40±2 for 1000</p> <p style="text-align: center;">+24</p> <p>\dot{E}0 h</p>
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Packaging

* Taping drawings

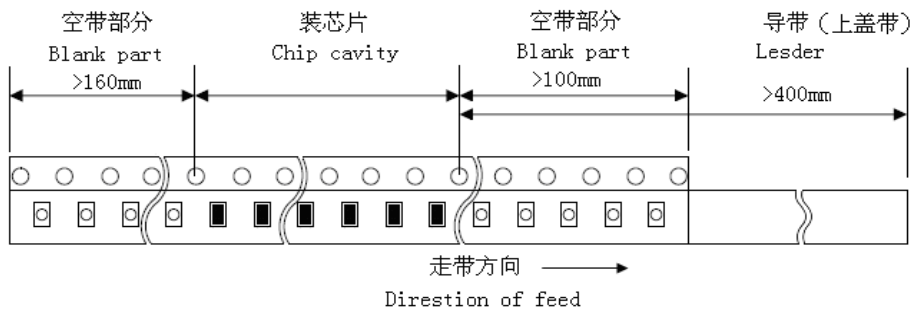


* Reel dimensions (Unit:mm)



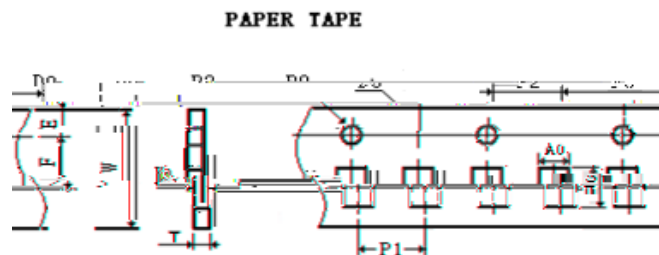
Part NO.	A typ.	B typ.	C typ.	D typ.
0402-0603	178	60	13	8.4

* Leader and blank portion



* Taping dimensions (Unit: mm)

Paper tape



Part NO.	W	E	F	D0	P0	P1	P2	P0x10	A0	B0	K0	T
0402	8.00	1.75	3.50	1.55	4	2	2	40	0.66	1.20	0.60	0.75
0603	8.00	1.75	3.50	1.55	4	4	2	40	1.20	1.90	1.05	1.15

*

Packaging number (Unit: Pcs)

Size		0402	0603
Per Reel		5000	4000
Per Box	3	15000	12000
	5	25000	20000
	10	50000	40000
Per Case	1.5	75000	60000
	3	150000	120000
	4	200000	160000
	5	300000	240000