

THROUGH-HOLE RADIAL FLAT POWER INDUCTORS

AIFC 1010 SERIES

FEATURES:

- Ferrite Core
- Wire-wound construction
- Narrow Design for densely mount
- High reliability、Ideal for automatic insertion
- Small Size 、 Low Cost
- Wide Range of Inductance Values
- High Q SRF

OPTIONS:

- Packaging: Tape & Reel is Standard (Qty: 1000 pcs)
Bulk packaging available for smaller quantities
- Tolerance: 10% is standard, tighter tolerances available.

COMMON APPLICATIONS:

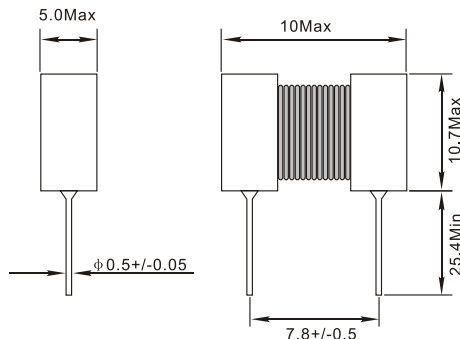
- VCRs, PDP, LCD, TV set
- Automotive Systems
- Computer Peripheral Equipment
- GPS, DC/DC converter, XDSL Modem
- Electronic Games
- Communications Equipment
- General Electronic Applications

STANDARD SPECIFICATIONS

Part Number	L (μH)	L Test Freq (MHz)	Q (Min)	Q Test Freq (MHz)	DCR (Ω Max)	IDC (Amax)	Part Number	L (μH)	L Test Freq (MHz)	Q (Min)	Q Test Freq (MHz)	DCR (Ω Max)	IDC (Amax)
AIFC1010-1R0K	1.0	7.96	45	7.96	0.015	7.0	AIFC1010-820K	82	2.52	50	2.52	1.198	0.86
AIFC1010-1R2K	1.2	7.96	39	7.96	0.012	6.0	AIFC1010-101K	100	0.796	80	0.796	1.600	0.70
AIFC1010-1R5K	1.5	7.96	33	7.96	0.014	5.0	AIFC1010-121K	120	0.796	70	0.796	1.725	0.65
AIFC1010-1R8K	1.8	7.96	37	7.96	0.020	4.8	AIFC1010-151K	150	0.796	70	0.796	1.855	0.60
AIFC1010-2R2K	2.2	7.96	38	7.96	0.025	4.4	AIFC1010-181K	180	0.796	70	0.796	2.070	0.58
AIFC1010-2R5K	2.5	7.96	40	7.96	0.030	4.1	AIFC1010-221K	220	0.796	50	0.796	2.105	0.49
AIFC1010-2R7K	2.7	7.96	43	7.96	0.028	4.0	AIFC1010-251K	250	0.796	40	0.796	2.700	0.49
AIFC1010-3R3K	3.3	7.96	35	7.96	0.036	3.7	AIFC1010-331K	330	0.796	50	0.796	3.335	0.41
AIFC1010-3R9K	3.9	7.96	37	7.96	0.050	3.4	AIFC1010-391K	390	0.796	45	0.796	3.450	0.39
AIFC1010-4R7K	4.7	7.96	37	7.96	0.053	3.2	AIFC1010-471K	470	0.796	40	0.796	5.290	0.35
AIFC1010-5R0K	5.0	7.96	40	7.96	0.080	2.90	AIFC1010-561K	560	0.796	40	0.796	5.405	0.32
AIFC1010-5R6K	5.6	7.96	38	7.96	0.092	2.80	AIFC1010-681K	680	0.796	45	0.796	5.930	0.29
AIFC1010-6R8K	6.8	7.96	29	7.96	0.113	2.60	AIFC1010-751K	750	0.796	30	0.796	4.200	0.28
AIFC1010-8R2K	8.2	2.52	30	2.52	0.110	2.50	AIFC1010-821K	820	0.796	40	0.796	6.325	0.27
AIFC1010-100K	10	2.52	80	2.52	0.190	2.10	AIFC1010-102K	1000	0.252	70	0.252	8.600	0.21
AIFC1010-120K	12	2.52	40	2.52	0.140	2.00	AIFC1010-122K	1200	0.252	70	0.252	10.00	0.21
AIFC1010-150K	15	2.52	40	2.52	0.158	1.60	AIFC1010-152K	1500	0.252	62	0.252	14.26	0.19
AIFC1010-180K	18	2.52	40	2.52	0.180	1.60	AIFC1010-182K	1800	0.252	62	0.252	15.76	0.17
AIFC1010-220K	22	2.52	40	2.52	0.230	1.40	AIFC1010-222K	2200	0.252	60	0.252	17.70	0.15
AIFC1010-250K	25	2.52	50	2.52	0.500	1.30	AIFC1010-252K	2500	0.252	60	0.252	18.00	0.14
AIFC1010-270K	27	2.52	50	2.52	0.2835	1.30	AIFC1010-272K	2700	0.252	60	0.252	19.10	0.14
AIFC1010-330K	33	2.52	45	2.52	0.346	1.20	AIFC1010-332K	3300	0.252	50	0.252	21.74	0.13
AIFC1010-390K	39	2.52	45	2.52	0.371	1.10	AIFC1010-392K	3900	0.252	50	0.252	26.00	0.12
AIFC1010-470K	47	2.52	45	2.52	0.502	1.03	AIFC1010-472K	4700	0.252	50	0.252	28.90	0.11
AIFC1010-500K	50	2.52	40	2.52	1.100	1.00	AIFC1010-602K	6000	0.252	35	0.252	31.00	0.10
AIFC1010-560K	56	2.52	40	2.52	0.687	0.95	AIFC1010-752K	7500	0.252	25	0.252	50.00	0.08
AIFC1010-680K	68	2.52	40	2.52	0.808	0.90	AIFC1010-103K	10000	0.252	25	0.252	70.00	0.07
AIFC1010-750K	75	2.52	40	2.52	1.200	0.86							

Note: 1. K = ± 10%, M = ± 20%

PHYSICAL CHARACTERISTICS



Electronical Schematic

DIMENSIONS in mm



TECHNICAL INFORMATION

- IDC Max: Determined when superimposed
- Testing: (Equivalent acceptable) Inductance: HP4342A
RDC: QuadTech 1880 Milliohm meter
Q- HP4342A - SRF-HP4191A
- DC current is decreased 10% against its initial value
- Operating temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Solder methods: Vapor Phase, Infrared Reflow
- Resistance to soldering heat: 260°C for 10 seconds
- Solvent resistance: Conforms to MIL-STD-202E
- Marking: Inductance & Tolerance

Note: All specifications subject to change without notice.

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MINI-INDUCTORS HIGH "Q" FLAT COILS AIFC1008 Series

Part No	Inductance μ H	Frequency	Min.Q	Max.RDC (Ohms)	Saturation Current DC Amps	Suggested Current Rating Amps
AIFC1008-1R0K	1.0	7.9 Mhz	37	0.010	7.0	2.25
AIFC1008-1R2K	1.2	7.9 Mhz	39	0.012	6.0	1.78
AIFC1008-1R5K	1.5	7.9 Mhz	33	0.014	5.0	1.42
AIFC1008-1R8K	1.8	7.9 Mhz	37	0.020	4.8	1.12
AIFC1008-2R2K	2.2	7.9 Mhz	38	0.025	4.4	0.88
AIFC1008-2R7K	2.7	7.9 Mhz	43	0.028	4.0	0.88
AIFC1008-3R3K	3.3	7.9 Mhz	35	0.036	3.7	0.70
AIFC1008-3R9K	3.9	7.9 Mhz	37	0.050	3.4	0.55
AIFC1008-4R7K	4.7	7.9 Mhz	37	0.053	3.2	0.55
AIFC1008-5R6K	5.6	7.9 Mhz	35	0.092	2.8	0.35
AIFC1008-6R8K	6.8	7.9 Mhz	29	0.113	2.6	0.35
AIFC1008-8R2K	8.2	7.9 Mhz	32	0.116	2.2	0.35
AIFC1008-100K	10	7.9 Mhz	31	0.120	2.1	0.35
AIFC1008-120K	12	2.5 Mhz	55	0.140	2.0	0.35
AIFC1008-150K	15	2.5 Mhz	51	0.158	1.6	0.35
AIFC1008-180K	18	2.5 Mhz	46	0.180	1.5	0.35
AIFC1008-220K	22	2.5 Mhz	51	0.230	1.4	0.28
AIFC1008-270K	27	2.5 Mhz	52	0.265	1.3	0.28
AIFC1008-330K	33	2.5 Mhz	47	0.346	1.2	0.22
AIFC1008-390K	39	2.5 Mhz	46	0.371	1.1	0.22
AIFC1008-470K	47	2.5 Mhz	45	0.502	1.03	0.175
AIFC1008-560K	56	2.5 Mhz	45	0.687	0.95	0.136
AIFC1008-680K	68	2.5 Mhz	46	0.888	0.90	0.108
AIFC1008-820K	82	2.5 Mhz	53	1.196	0.85	0.087
AIFC1008-101K	100	790 Khz	39	1.495	0.80	0.087
AIFC1008-121K	120	790 Khz	75	1.725	0.65	0.087
AIFC1008-151K	150	790 Khz	60	1.955	0.60	0.087
AIFC1008-181K	180	790 Khz	75	2.070	0.56	0.087
AIFC1008-221K	220	790 Khz	63	2.185	0.49	0.087
AIFC1008-271K	270	790 Khz	68	2.530	0.45	0.087
AIFC1008-331K	330	790 Khz	64	3.335	0.41	0.070
AIFC1008-391K	390	790 Khz	60	3.450	0.39	0.070
AIFC1008-471K	470	790 Khz	70	5.290	0.35	0.056
AIFC1008-561K	560	790 Khz	68	5.405	0.32	0.056
AIFC1008-681K	680	790 Khz	64	5.930	0.29	0.056
AIFC1008-821K	820	790 Khz	60	6.325	0.27	0.056
AIFC1008-102K	1000	790 Khz	40	7.130	0.25	0.056
AIFC1008-122K	1200	250 Khz	70	10.005	0.21	0.042
AIFC1008-152K	1500	250 Khz	72	14.260	0.19	0.033
AIFC1008-182K	1800	250 Khz	72	15.765	0.17	0.033
AIFC1008-222K	2200	250 Khz	72	17.595	0.15	0.033
AIFC1008-272K	2700	250 Khz	72	19.320	0.14	0.033
AIFC1008-332K	3300	250 Khz	72	21.735	0.13	0.033
AIFC1008-392K	3900	250 Khz	70	26.000	0.12	0.027
AIFC1008-472K	4700	250 Khz	63	29.900	0.11	0.027

The AIFC1008 is an economical inductor with a unique flat coil configuration that makes it ideally suited for use in high density printed circuit board assemblies. Twice the inductance and Q values are obtainable with the flat coil configuration than is possible with axial lead inductors occupying the same space. The flat coils have a wide range of inductance and high Q values so they can effectively be used at radio as well as audio frequencies.

SPECIFICATIONS:

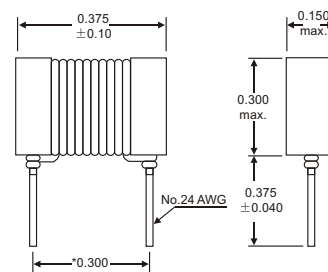
Operating ambient temperature:

-55°C to +130°C Weight: 1 gram maximum

Tolerance: 10% all values 10 μ H to 4700 μ H
20% all values under 10 μ H

Inductance measured on Q meter

PRODUCT DIMENSIONS



*Easily Formable To

ALL DIMENSIONS IN INCHES

INDUCTANCE	Q METER FREQUENCY
1.0-10 μ H	7.90 Mhz
10-100 μ H	2.50 Mhz
0.1- μ H	790 Mhz
1.0-4.7 μ H	250 Mhz

NOTES:

1. $\pm 10\%$ Standard Tolerance. Values Below are $\pm 20\%$
3. Nonstandard Values Available Upon Request
5. Height Dimension Shown Without Solder Joint or Coatings

2. Saturation Current Lowers Inductance 5%
4. Encapsulation Available