

### ALCF Series

#### Features

- Utilizing a miniaturized winding structure.
- These products provide low DC resistance and high current.
- Precision inductance tolerance is available.

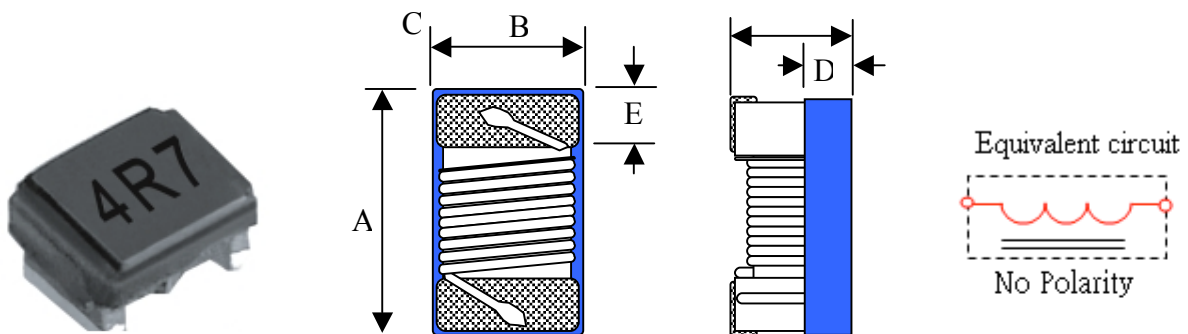
#### Applications

- Personal computer, Hard disk drives.
- ADSL Modern and Cable Modern.
- Digital camera and other electronic equipment.

#### Test Equipment and Conditions

- L , Q : Agilent/HP E4991A+ Agilent/HP16197A.
- SRF : Agilent/HP E4991A+ Agilent/HP 16197A.
- Rdc : DIGITAL MILLIOHM METER Chroma 16502, or equivalent.
- I<sub>dc</sub> for Inductance drop 10% from its value without current.
- Operating temperature range from -25°C to 85°C.

#### External Dimensions (Unit:m/m)



TYPE	METRIC	A	B	C	D	E	Q'Ty / Reel
ALCF160808	0603	1.80 Max	1.20 Max	1.10 Max	0.45Ref	0.33±0.1	4000
ALCF292520	1008	2.90 Max	2.54 Max	2.03 Max	1.30 Ref	0.5±0.1	2000
ALCF362924	1210	3.60 Max	2.90 Max	2.40 Max	1.10 Ref	0.5±0.1	2000

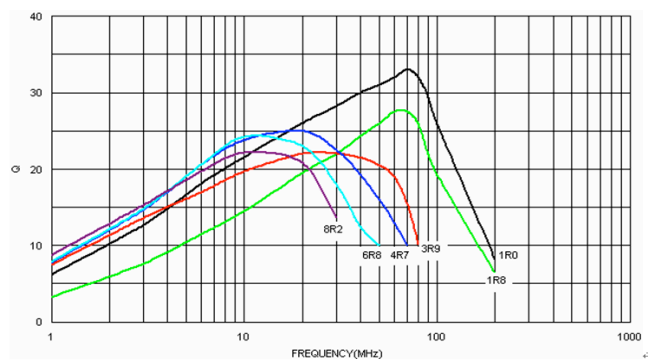
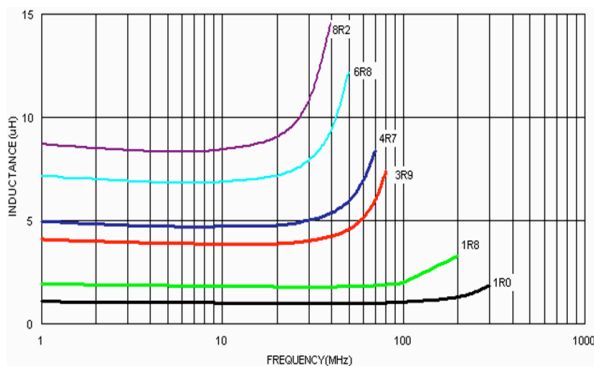
#### Part Number Code

ALCF    160808    □    47N  
 A            B            C            D

A: Series Name                      Wire Wound Inductors  
 B: Dimensions(mm)                160808: 0603  
 C: Tolerance                         J: ±5%    K: ±10%  
 D: Inductance                        47N=0.047uH

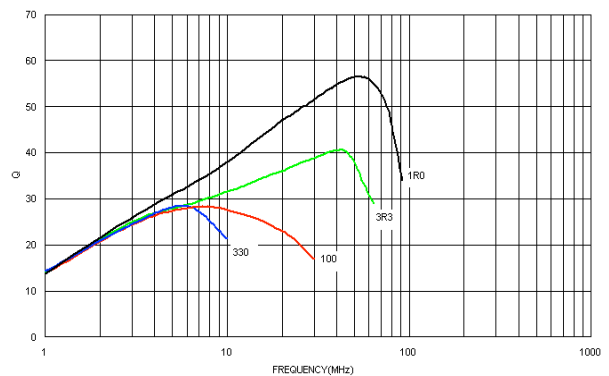
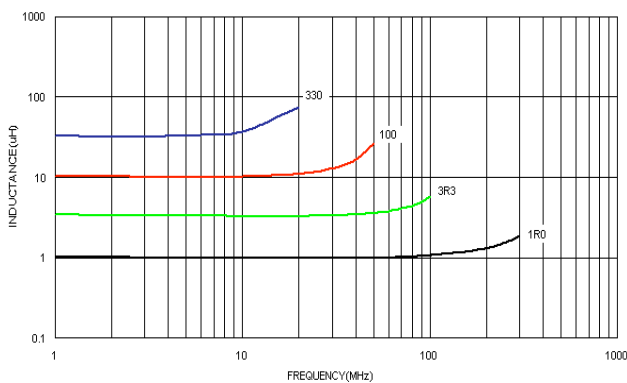
### ALCF Series

Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Min.	SRF(MHz) Min.	RDC(Ω) Max.	IDC(mA) Max.	I <sub>rms</sub> (mA) Typ.
ALCF160808□-47N	0.047/7.9	K	10/7.9	2000	0.075	1800	1600
ALCF160808□-R10	0.1/7.9	K	12/7.9	1150	0.13	1700	1300
ALCF160808□-R15	0.15/7.9	J, K	15/7.9	1050	0.15	1600	1200
ALCF160808□-R22	0.22/7.9	J, K	15/7.9	900	0.30	1200	940
ALCF160808□-R24	0.24/7.9	J, K	15/7.9	850	0.33	1460	1000
ALCF160808□-R27	0.27/7.9	J, K	15/7.9	835	0.35	1460	950
ALCF160808□-R33	0.33/7.9	J, K	15/7.9	725	0.46	1420	940
ALCF160808□-R39	0.39/7.9	J, K	15/7.9	680	0.45	1400	860
ALCF160808□-R47	0.47/7.9	J, K	15/7.9	640	0.43	1400	820
ALCF160808□-R56	0.56/7.9	J, K	15/7.9	630	0.44	1400	770
ALCF160808□-R68	0.68/7.9	J, K	15/7.9	510	0.52	1340	730
ALCF160808□-R78	0.78/7.9	J, K	15/7.9	465	0.63	1300	730
ALCF160808□-R82	0.82/7.9	J, K	15/7.9	460	0.69	1200	660
ALCF160808□-1R0	1.0/7.9	J, K	15/7.9	320	0.81	1100	630
ALCF160808□-1R2	1.2/7.9	J, K	15/7.9	270	0.87	1000	540
ALCF160808□-1R5	1.5/7.9	J, K	15/7.9	230	0.96	920	560
ALCF160808□-1R8	1.8/7.9	J, K	15/7.9	210	1.10	900	500
ALCF160808□-2R2	2.2/7.9	J, K	15/7.9	115	1.20	740	500
ALCF160808□-2R7	2.7/7.9	J, K	15/7.9	100	1.38	700	460
ALCF160808□-3R3	3.3/7.9	J, K	15/7.9	84	1.50	680	420
ALCF160808□-3R9	3.9/7.9	J, K	15/7.9	75	1.50	600	400
ALCF160808□-4R7	4.7/7.9	J, K	15/7.9	67	2.10	580	350
ALCF160808□-5R6	5.6/7.9	J, K	15/7.9	55	2.37	540	340
ALCF160808□-6R8	6.8/7.9	J, K	15/7.9	48	3.10	500	330
ALCF160808□-7R8	7.8/7.9	J, K	15/7.9	40	3.35	460	320
ALCF160808□-8R2	8.2/7.9	J, K	15/7.9	38	3.50	440	300
ALCF160808□-100	10.0/7.9	J, K	15/7.9	32	4.46	400	250



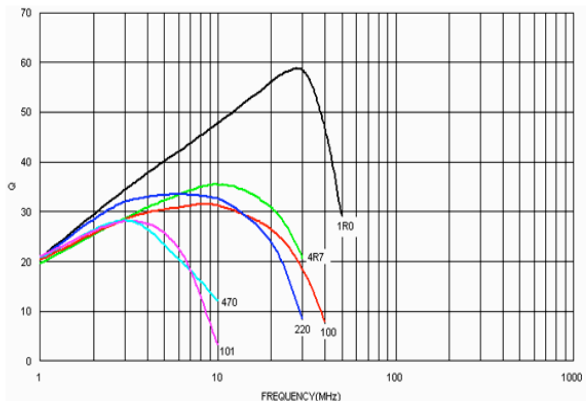
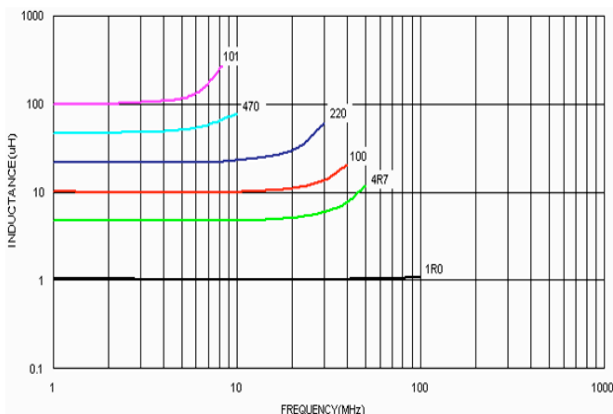
### ALCF Series

Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Min.	SRF(MHz) Min.	RDC(Ω) Max.	IDC(mA) Max.	Irms (mA) Typ.
ALCF292520□-R22	0.22 /25	J, K	35/25	800	0.15	2600	2400
ALCF292520□-R47	0.47/25	K	35/25	460	0.20	2400	1100
ALCF292520□-R82	0.82/25	J, K	35/25	360	0.35	1800	1000
ALCF292520□-1R0	1.0/7.9	J, K	32/7.9	340	0.34	2100	900
ALCF292520□-1R2	1.2/7.9	J, K	25/7.9	290	0.25	1900	860
ALCF292520□-1R5	1.5/7.9	J, K	32/7.9	230	0.42	1800	740
ALCF292520□-1R8	1.8/7.9	J, K	27/7.9	180	0.45	1700	720
ALCF292520□-2R2	2.2/7.9	J, K	27/7.9	140	0.50	1500	700
ALCF292520□-2R7	2.7/7.9	J, K	27/7.9	130	0.55	1300	560
ALCF292520□-3R3	3.3/7.9	J, K	27/7.9	125	0.60	1300	540
ALCF292520□-3R9	3.9/7.9	J, K	27/7.9	100	0.80	1200	480
ALCF292520□-4R7	4.7/7.9	J, K	27/7.9	90	0.90	1100	400
ALCF292520□-6R8	6.8/7.9	J, K	27/7.9	60	1.05	950	420
ALCF292520□-8R2	8.2/7.9	J, K	25/7.9	55	1.20	850	380
ALCF292520□-100	10/2.5	J, K	23/2.5	55	1.55	800	240
ALCF292520□-120	12/2.5	J, K	23/2.5	36	2.10	630	220
ALCF292520□-150	15/2.5	J, K	23/2.5	36	2.38	650	200
ALCF292520□-180	18/2.5	J, K	23/2.5	32	2.50	550	180
ALCF292520□-220	22/2.5	J, K	23/2.5	29	2.92	550	180
ALCF292520□-330	33/2.5	J, K	23/2.5	21	4.10	450	140
ALCF292520□-470	47/2.5	J, K	23/2.5	17	7.80	350	100
ALCF292520□-101	100/1	J, K	13/1	4	13.20	200	100
ALCF292520□-221	220/1	J, K	13/1	3	26.50	140	60
ALCF292520□-331	330/1	J, K	13/1	2	32.50	110	50



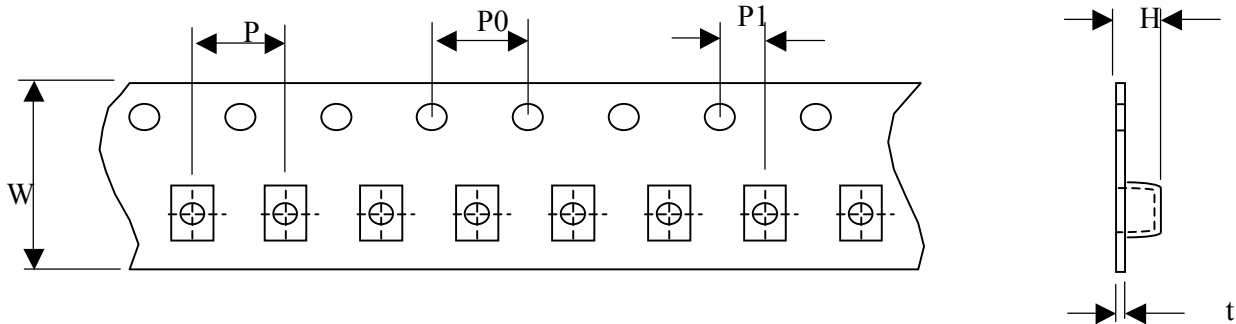
### ALCF Series

Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Min.	SRF(MHz) Min.	RDC(Ω) Max.	IDC(mA) Max.
ALCF362924□-R39	0.39/25	J	40/25	500	0.090	3000
ALCF362924□-R56	0.56/25	K	40/25	500	0.100	3000
ALCF362924□-1R0	1.0/7.9	J	35/7.9	340	0.125	2600
ALCF362924□-1R2	1.2/7.9	K	35/7.9	280	0.135	2400
ALCF362924□-1R5	1.5/7.9	J/K	30/7.9	160	0.145	2200
ALCF362924□-1R8	1.8/7.9	J/K	30/7.9	120	0.160	2000
ALCF362924□-2R2	2.2/7.9	J/K	30/7.9	100	0.170	1900
ALCF362924□-2R5	2.5/7.9	J/K	30/7.9	80	0.190	1700
ALCF362924□-3R3	3.3/7.9	J/K	30/7.9	70	0.210	1500
ALCF362924□-4R7	4.7/7.9	J/K	28/7.9	55	0.300	1300
ALCF362924□-6R8	6.8/7.9	J/K	28/7.9	45	0.370	1100
ALCF362924□-8R2	8.2/7.9	J/K	28/7.9	45	0.470	940
ALCF362924□-100	10/2.5	J/K	22/2.5	47	0.500	900
ALCF362924□-120	12/2.5	J/K	22/2.5	42	0.680	820
ALCF362924□-150	15/2.5	J/K	22/2.5	34	0.720	740
ALCF362924□-180	18/2.5	J/K	22/2.5	28	0.950	680
ALCF362924□-220	22/2.5	J/K	22/2.5	25	1.000	640
ALCF362924□-270	27/2.5	J/K	20/2.5	18	1.250	570
ALCF362924□-330	33/2.5	J/K	20/2.5	13	1.370	500
ALCF362924□-470	47/2.5	J/K	20/2.5	12	1.880	440
ALCF362924□-560	56/2.5	J/K	22/2.5	10	2.750	380
ALCF362924□-680	68/2.5	J/K	22/2.5	10	3.000	360
ALCF362924□-820	82/2.5	J/K	22/2.5	10	4.100	320
ALCF362924□-101	100/1.0	J/K	15/1.0	8	4.682	280
ALCF362924□-151	150/1.0	J/K	13/1.0	7	6.102	220
ALCF362924□-181	180/1.0	J/K	13/1.0	3	7.100	200
ALCF362924□-221	220/1.0	J/K	13/1.0	3	7.650	200
ALCF362924□-331	330/1.0	J/K	13/1.0	3	12.62	160
ALCF362924□-471	470/1.0	J/K	13/1.0	3	25.00	120
ALCF362924□-561	560/1.0	J/K	13/1.0	2	27.00	100
ALCF362924□-681	680/1.0	J/K	13/1.0	2	31.00	100
ALCF362924□-821	820/1.0	J/K	10/1.0	2	42.00	50
ALCF362924□-102	1000/1.0	J/K	10/1.0	2	46.00	50



### Packaging

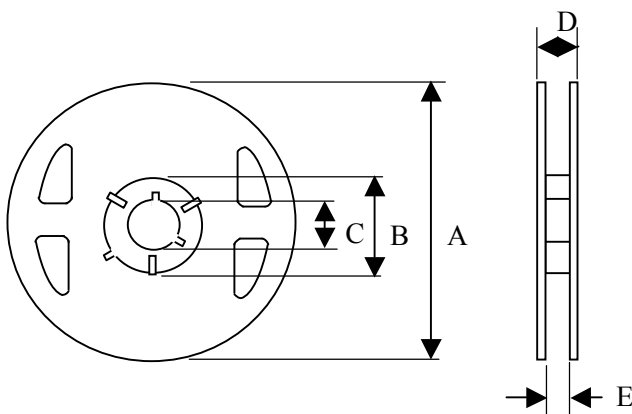
#### 1. Tape dimensions



Unit: mm

TYPE	METRIC	W	P	P0	P1	H	T
ALCF160808	0603	8	4	4	2	NA	0.23
ALCF292520	1008	8	4	4	2	2.5	0.22
ALCF362924	1210	8	4	4	2	NA	0.23

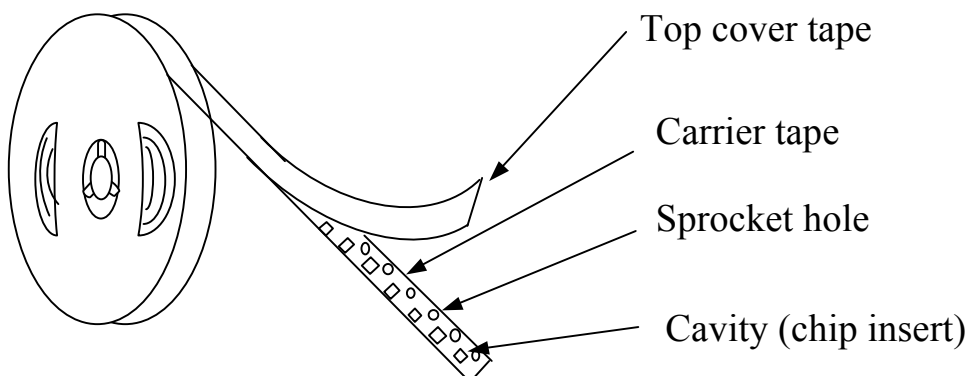
#### 2. Reel Dimensions



Unit: mm

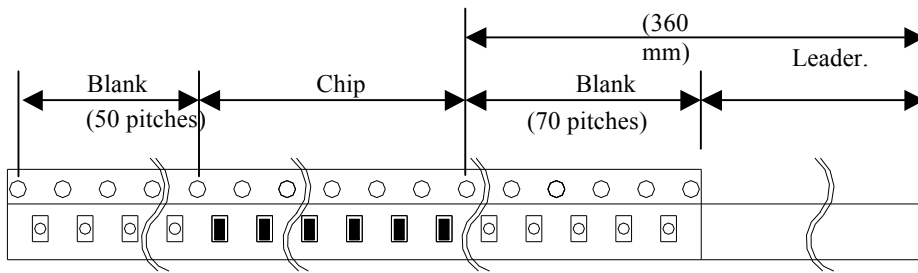
Symbol	A	B	C	D	E
T	180	60	13	14.4	8.4

#### 3. Tapping figure



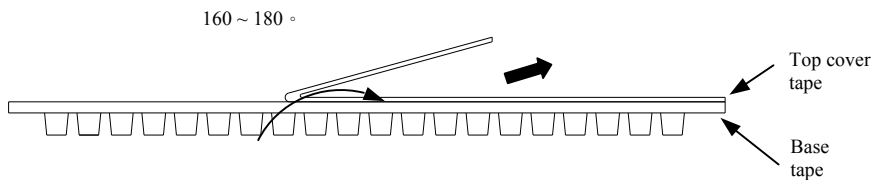
### 4 . Packaging Form

There shall not continuation more than two vacancies of the product.

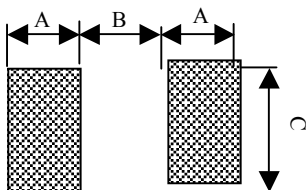


### 5 . Cover Tape Peel Strength

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:  
 Temperature : 5 ~ 35°C  
 Humidity : 45 ~ 85%  
 Atmospheric pressure : 860 ~ 1060 hpa



### 6 . Recommended Footprint

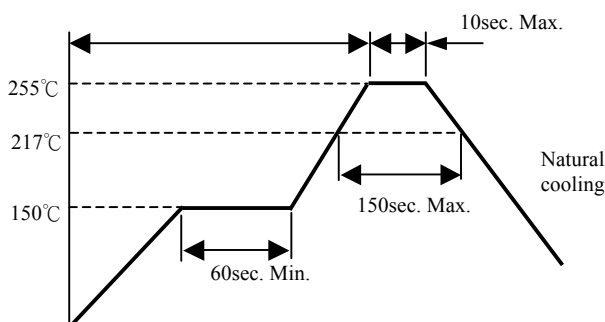


Unit: mm

TYPE	METRIC	A	B	C
ALCF160808	0603	0.64	0.64	1.02
ALCF292520	1008	1.02	1.27	2.54
ALCF362924	1210	1.20	2.00	2.70

### 7 . Recommended Reflow Pattern

Reflow at 260°C/3 Cycles



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