

ALCF Series

Features

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

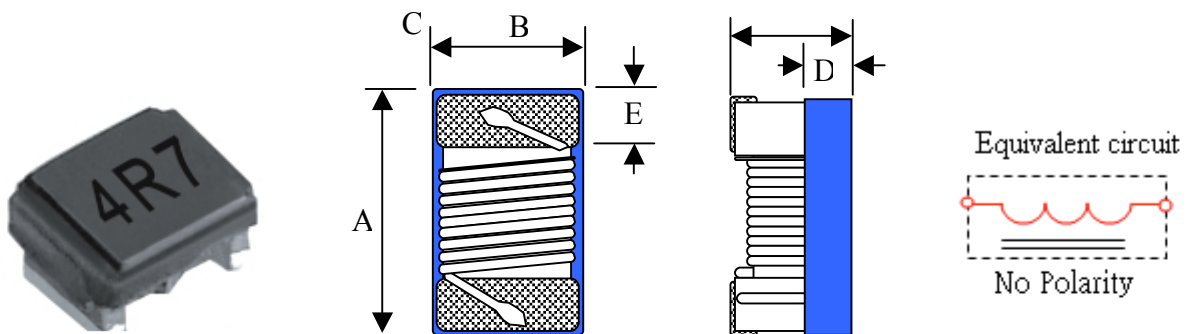
Applications

- 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_{dc} 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 |

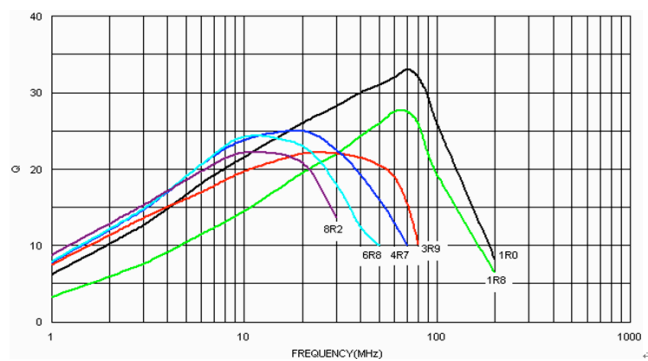
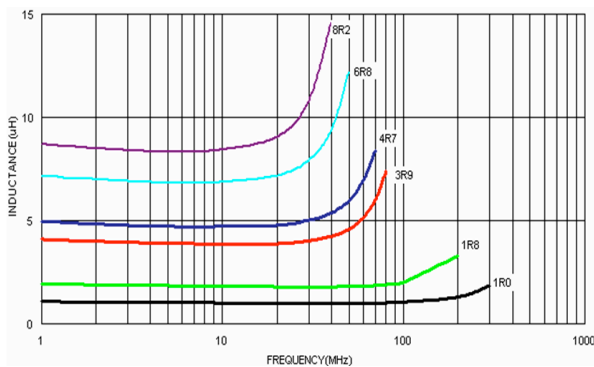
Part Number Code

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

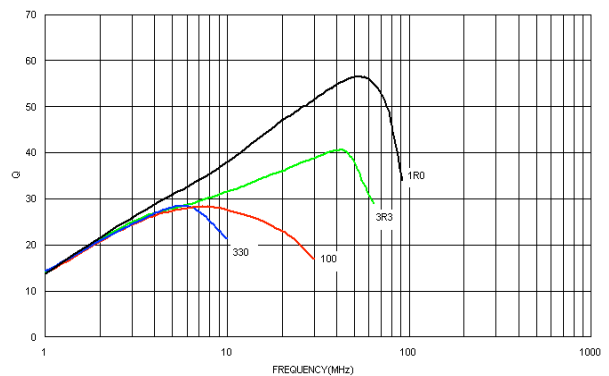
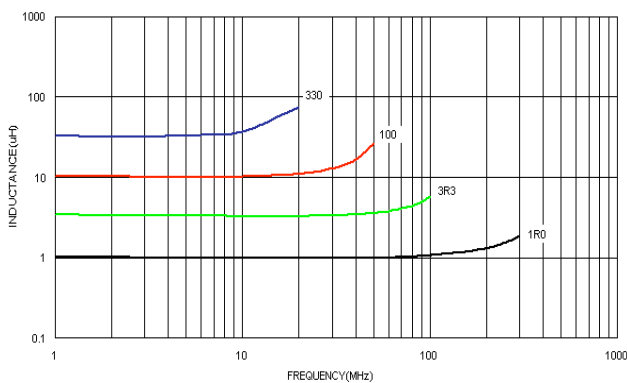
ALCF Series

| Part Number | Inductance (uH)/MHz | Inductance Tolerance | Q/MHz Min. | SRF(MHz) Min. | RDC(Ω) Max. | IDC(mA) Max. | I _{rms} (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 |



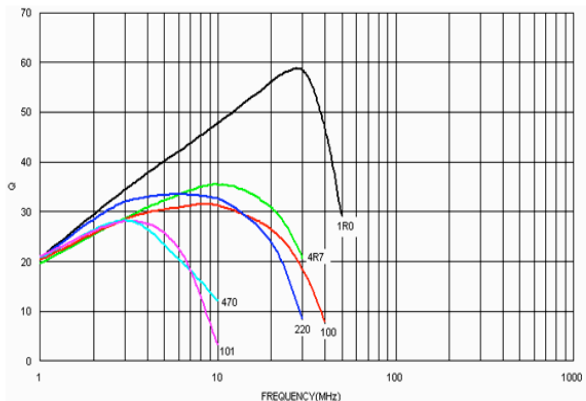
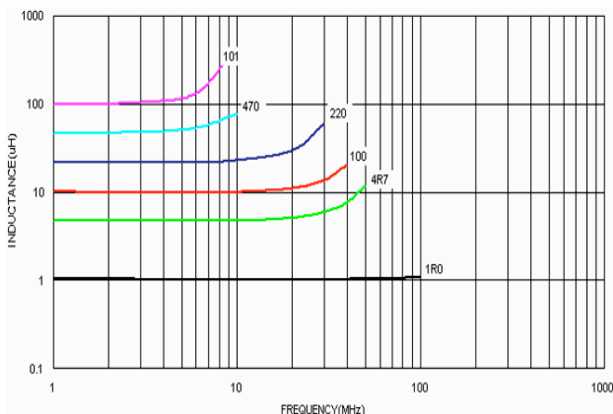
ALCF Series

| Part Number | Inductance (uH)/MHz | Inductance Tolerance | Q/MHz Min. | SRF(MHz) Min. | RDC(Ω) Max. | IDC(mA) Max. | I _{rms} (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 |



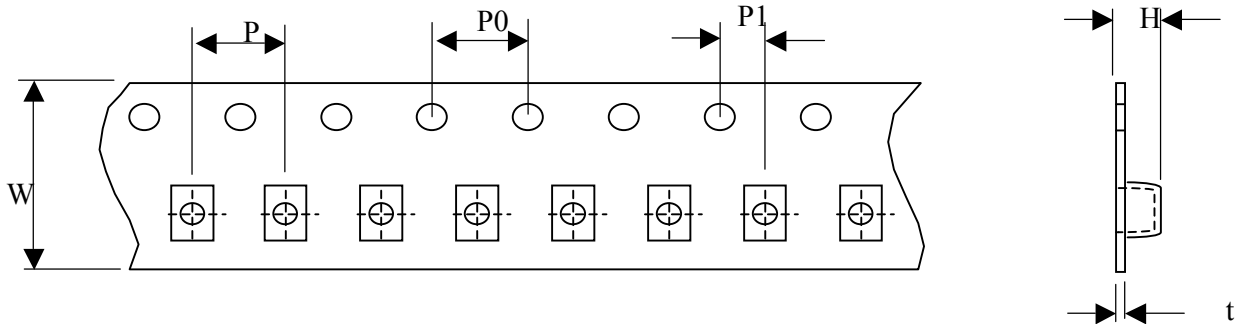
ALCF Series

| 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

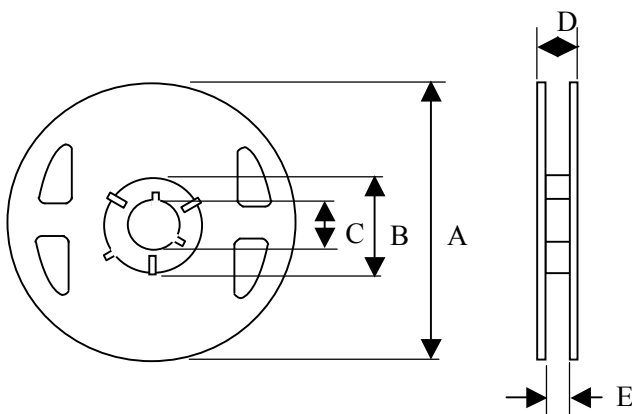
1. Tape dimensions



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 |

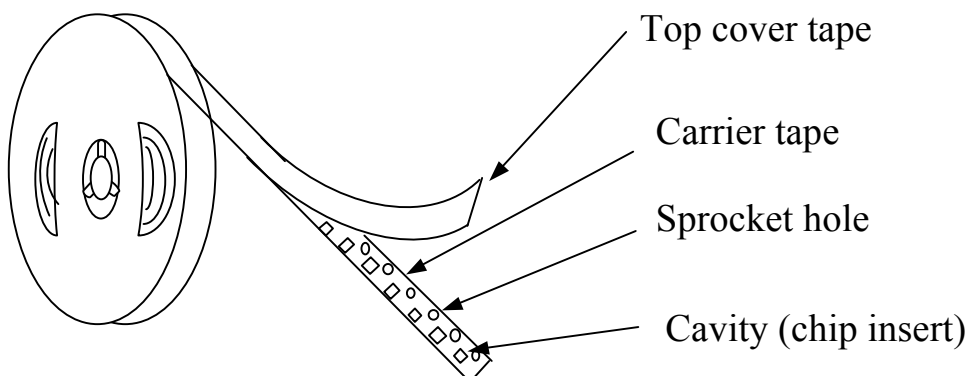
2. Reel Dimensions



Unit: mm

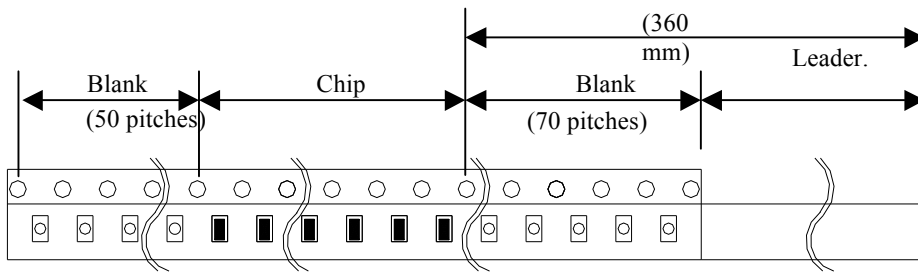
| Symbol | A | B | C | D | E |
|--------|-----|----|----|------|-----|
| T | 180 | 60 | 13 | 14.4 | 8.4 |

3. Tapping figure



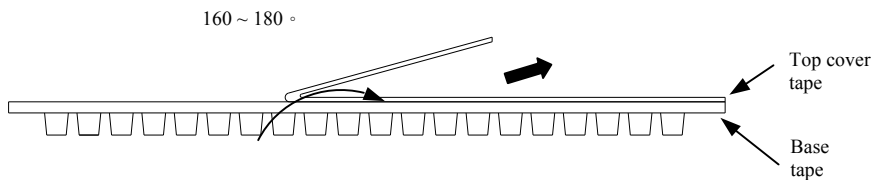
4 . Packaging Form

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

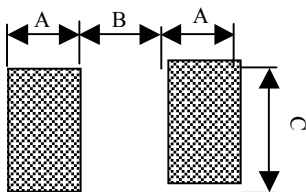


5 . Cover Tape Peel Strength

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

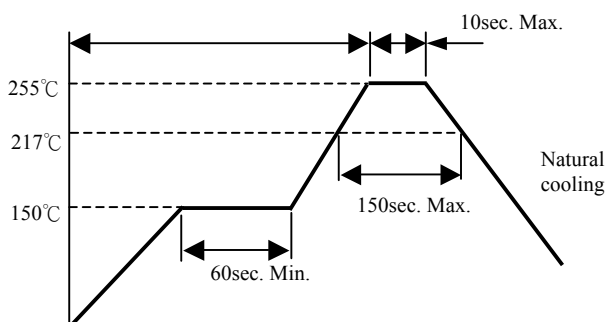


Unit: mm

| 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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[MLZ1608M150WTD25](#) [MLZ1608M3R3WTD25](#) [MLZ1608M3R3WT000](#) [MLZ1608M150WT000](#) [MLZ1608A1R5WT000](#)

[MLZ1608N1R5LT000](#) [B82432C1333K000](#) [PCMB053T-1R0MS](#) [PCMB053T-1R5MS](#) [PCMB104T-1R5MS](#) [CR32NP-100KC](#) [CR32NP-](#)

[151KC](#) [CR32NP-180KC](#) [CR32NP-181KC](#) [CR32NP-1R5MC](#) [CR32NP-390KC](#) [CR32NP-3R9MC](#) [CR32NP-680KC](#) [CR32NP-820KC](#)

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[53824SNLT](#) [PE-62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-](#)

[R](#)