

Type AFK -55 °C to 105 °C

SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

Low Impedance and Long-Life for Filtering, Bypassing and Power Supply Decoupling



Type AFK Capacitors are the best and by a wide margin. With 40% to 60% lower impedance, 30% to 50% smaller case size and more than twice the life compared to low-ESR type AFC, the Type AFK also excels at cold performance down to -55 °C. In addition, this terrific low-impedance performance, approaching low-ESR tantalum capacitors, is at a significant cost savings compared to tantalum. The vertical cylindrical cases facilitate automatic mounting and reflow soldering into the same footprint of like-rated tantalum capacitors except without the need for voltage derating.

Highlights

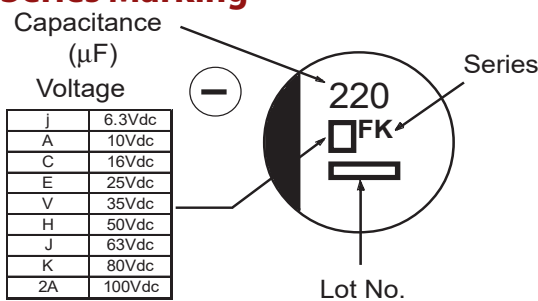
- +105 °C, Up to 5000 Hour Load Life
- Capacitance Range: 3.3 µF to 6800 µF
- Voltage Range: 6.3 Vdc to 100 Vdc
- AEC-Q200 Compliant

Specifications

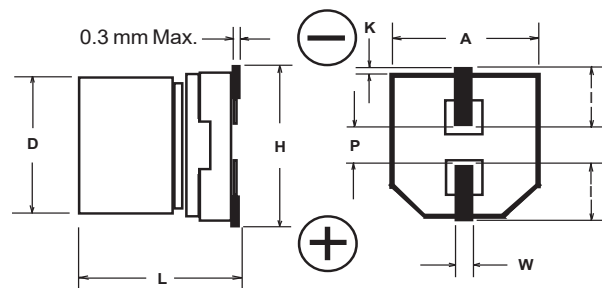
| Capacitance Range | 1.0 µF to 1500 µF | | | | | | | | | | | | | | | | | | |
|--|---|-----------|----------|--------|---------|--------|---------|------|------|------|------|------|------|------|------|-----|------|------|------|
| Capacitance Tolerance | ±20% @ 120 Hz and +20 °C | | | | | | | | | | | | | | | | | | |
| Rated Voltage | 6.3, 10, 16, 25, 35, 50, 63, 80 & 100 Vdc | | | | | | | | | | | | | | | | | | |
| Operating Temperature Range | -55 °C to +105 °C | | | | | | | | | | | | | | | | | | |
| Leakage Current | I = 0.01 CV or 3 (µA) whichever is greater after 2 minutes | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | <table border="1"> <thead> <tr> <th>6.3V</th> <th>10V</th> <th>16V</th> <th>25V</th> <th>35V</th> <th>50V</th> <th>63V</th> <th>80V</th> <th>100V</th> </tr> </thead> <tbody> <tr> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.1</td> <td>0.08</td> <td>0.08</td> <td>0.07</td> </tr> </tbody> </table> <p>Add 0.02 per 1000 µF for values greater than 1000 µF</p> | 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 80V | 100V | 0.26 | 0.19 | 0.16 | 0.14 | 0.12 | 0.1 | 0.08 | 0.08 | 0.07 |
| 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 80V | 100V | | | | | | | | | | | |
| 0.26 | 0.19 | 0.16 | 0.14 | 0.12 | 0.1 | 0.08 | 0.08 | 0.07 | | | | | | | | | | | |
| Ripple Current Multipliers (Frequency) | <table border="1"> <thead> <tr> <th>Frequency</th> <th>50/60 Hz</th> <th>120 Hz</th> <th>1 kHz</th> <th>10 kHz</th> <th>100 kHz</th> </tr> </thead> <tbody> <tr> <td></td> <td>0.70</td> <td>0.75</td> <td>0.90</td> <td>0.95</td> <td>1.00</td> </tr> </tbody> </table> | Frequency | 50/60 Hz | 120 Hz | 1 kHz | 10 kHz | 100 kHz | | 0.70 | 0.75 | 0.90 | 0.95 | 1.00 | | | | | | |
| Frequency | 50/60 Hz | 120 Hz | 1 kHz | 10 kHz | 100 kHz | | | | | | | | | | | | | | |
| | 0.70 | 0.75 | 0.90 | 0.95 | 1.00 | | | | | | | | | | | | | | |
| Load Life | 2000 h @ 105 °C, 4.0 — 10.0 mm dia. 5000 h @ 105 °C, 12.5 — 18.0 mm dia. Δ Capacitance ±30% DF: ≤ 200% of limit DCL: ≤ 100% of limit | | | | | | | | | | | | | | | | | | |
| Shelf Life | 1000 h @ 105 °C Δ Capacitance ±30% DF: ≤ 200% of limit DCL: ≤ 100% of limit | | | | | | | | | | | | | | | | | | |

RoHS Compliant

AFK Series Marking



Outline Drawing



Case Dimensions

| Case Code | D ± 0.5 | L | A ± 0.2 | H (max) | I (ref) | W | P (ref) | K (mm) |
|-----------|---------|------------|---------|---------|---------|------------|---------|------------------|
| B | 4.0 | 5.8 ± 0.3 | 4.3 | 5.5 | 1.8 | 0.65 ± 0.1 | 1.0 | 0.35 +0.15/-0.20 |
| C | 5.0 | 5.8 ± 0.3 | 5.3 | 6.5 | 2.2 | 0.65 ± 0.1 | 1.5 | 0.35 +0.15/-0.20 |
| D | 6.3 | 5.8 ± 0.3 | 6.6 | 7.8 | 2.6 | 0.65 ± 0.1 | 1.8 | 0.35 +0.15/-0.20 |
| X | 6.3 | 7.9 ± 0.3 | 6.6 | 7.8 | 2.6 | 0.65 ± 0.1 | 1.8 | 0.35 +0.15/-0.20 |
| E | 8.0 | 6.2 ± 0.3 | 8.3 | 9.5 | 3.4 | 0.65 ± 0.1 | 2.2 | 0.35 +0.15/-0.20 |
| F | 8.0 | 10.2 ± 0.3 | 8.3 | 10.0 | 3.4 | 0.90 ± 0.2 | 3.1 | 0.70 ± 0.20 |
| G | 10.0 | 10.2 ± 0.3 | 10.3 | 12.0 | 3.5 | 0.90 ± 0.2 | 4.6 | 0.70 ± 0.20 |
| H | 12.5 | 13.5 ± 0.5 | 13.5 | 15.0 | 4.7 | 0.90 ± 0.3 | 4.4 | 0.70 ± 0.30 |
| P | 16.0 | 16.5 ± 0.5 | 17.0 | 19.0 | 5.5 | 1.2 ± 0.3 | 6.7 | 0.70 ± 0.30 |
| R | 18.0 | 16.5 ± 0.5 | 19.0 | 21.0 | 6.7 | 1.2 ± 0.3 | 6.7 | 0.70 ± 0.30 |

Type AFK -55 °C to 105 °C

SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

Ratings Table

| Cap Cap (μ F) | Catalog Part Number | Max. DCL 2 min (μ A) | Max. Dissipation Factor @120 Hz/20 °C | Max. ESR @100 kHz/20 °C (Ω) | Impedance @ 100 kHz/20 °C (Ω) | Max. Ripple Current @ 100 kHz/105 °C (mA) | Case Code | Size D x L (mm) | Quantity per Reel |
|--------------------------------|------------------------|------------------------------------|--|---|--|--|--------------|-----------------------|----------------------|
| 6.3 Vdc (8 Vdc Surge) | | | | | | | | | |
| 22 | AFK226M06B12T-F | 3.0 | 0.26 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 47 | AFK476M06B12T-F | 3.0 | 0.26 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 47 | AFK476M06C12T-F | 3.0 | 0.26 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 100 | AFK107M06C12T-F | 6.3 | 0.26 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 100 | AFK107M06D16T-F | 6.3 | 0.26 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 220 | AFK227M06D16T-F | 13.9 | 0.26 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 330 | AFK337M06X16T-F | 20.8 | 0.26 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 330 | AFK337M06E16T-F | 20.8 | 0.26 | 0.260 | 0.260 | 300 | E | 8 x 6.2 | 1000 |
| 470 | AFK477M06F24T-F | 29.6 | 0.26 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 1000 | AFK108M06F24T-F | 63.0 | 0.26 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 1500 | AFK158M06G24T-F | 94.5 | 0.26 | 0.080 | 0.080 | 850 | G | 10 x 10.2 | 500 |
| 3300 | AFK338M06H32T-F | 207.9 | 0.30 | 0.060 | 0.060 | 1100 | H | 12.5 x 13.5 | 200 |
| 6800 | AFK688M06P44T-F | 428.4 | 0.36 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 10 Vdc (13 Vdc Surge) | | | | | | | | | |
| 22 | AFK226M10B12T-F | 3.0 | 0.19 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 33 | AFK336M10B12T-F | 3.3 | 0.19 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 33 | AFK336M10C12T-F | 3.3 | 0.19 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 150 | AFK157M10D16T-F | 15.0 | 0.19 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 220 | AFK227M10X16T-F | 22.0 | 0.19 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 220 | AFK227M10E16T-F | 22.0 | 0.19 | 0.260 | 0.260 | 300 | E | 8 x 6.2 | 1000 |
| 330 | AFK337M10F24T-F | 33.0 | 0.19 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 470 | AFK477M10F24T-F | 47.0 | 0.19 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 680 | AFK687M10F24T-F | 68.0 | 0.19 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 1000 | AFK108M10G24T-F | 100.0 | 0.19 | 0.080 | 0.080 | 850 | G | 10 x 10.2 | 500 |
| 2200 | AFK228M10H32T-F | 220.0 | 0.21 | 0.060 | 0.060 | 1100 | H | 12.5 x 13.5 | 200 |
| 4700 | AFK478M10P44T-F | 470.0 | 0.25 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 6800 | AFK688M10R44T-F | 680.0 | 0.29 | 0.033 | 0.033 | 2060 | R | 18 x 16.5 | 125 |
| 16 Vdc (20 Vdc Surge) | | | | | | | | | |
| 10 | AFK106M16B12T-F | 3.0 | 0.16 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 22 | AFK226M16B12T-F | 3.5 | 0.16 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 22 | AFK226M16C12T-F | 3.5 | 0.16 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 47 | AFK476M16C12T-F | 7.5 | 0.16 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 47 | AFK476M16D16T-F | 7.5 | 0.16 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 68 | AFK686M16D16T-F | 10.9 | 0.19 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 100 | AFK107M16D16T-F | 16.0 | 0.16 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 150 | AFK157M16X16T-F | 24.0 | 0.16 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 220 | AFK227M16X16T-F | 35.2 | 0.16 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 220 | AFK227M16E16T-F | 35.2 | 0.16 | 0.260 | 0.260 | 300 | E | 8 x 6.2 | 1000 |
| 330 | AFK337M16F24T-F | 52.8 | 0.16 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 470 | AFK477M16F24T-F | 75.2 | 0.16 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 680 | AFK687M16G24T-F | 108.8 | 0.16 | 0.080 | 0.080 | 850 | G | 10 x 10.2 | 500 |
| 1500 | AFK158M16H32T-F | 240.0 | 0.16 | 0.060 | 0.060 | 1100 | H | 12.5 x 13.5 | 200 |
| 3300 | AFK338M16P44T-F | 528.0 | 0.20 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 4700 | AFK478M16R44T-F | 752.0 | 0.22 | 0.033 | 0.033 | 2060 | R | 18 x 16.5 | 125 |

Type AFK -55 °C to 105 °C

SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

| Cap (µF) | Catalog Part Number | Max. DCL 2 min (µA) | Max. Dissipation Factor @120 Hz/20 °C | Max. ESR @100 kHz/20 °C (Ω) | Impedance @ 100 kHz/20 °C (Ω) | Max. Ripple Current @ 100 kHz/105 °C (mA) | Case Code | Size D x L (mm) | Quantity per Reel |
|--------------------------------|---------------------|---------------------|---------------------------------------|-----------------------------|-------------------------------|---|-----------|-----------------|-------------------|
| 25 Vdc (31 Vdc Surge) | | | | | | | | | |
| 10 | AFK106M25B12T-F | 3.0 | 0.14 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 22 | AFK226M25C12T-F | 5.5 | 0.14 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 33 | AFK336M25C12T-F | 8.3 | 0.14 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 33 | AFK336M25D16T-F | 8.3 | 0.14 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 47 | AFK476M25D16T-F | 11.8 | 0.14 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 68 | AFK686M25D16T-F | 17.0 | 0.14 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 100 | AFK107M25X16T-F | 25.0 | 0.14 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 100 | AFK107M25E16T-F | 25.0 | 0.14 | 0.260 | 0.260 | 300 | E | 8 x 6.2 | 1000 |
| 150 | AFK157M25F24T-F | 37.5 | 0.14 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 220 | AFK227M25F24T-F | 55.0 | 0.14 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 330 | AFK337M25F24T-F | 82.5 | 0.14 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 470 | AFK477M25G24T-F | 117.5 | 0.14 | 0.080 | 0.080 | 850 | G | 10 x 10.2 | 500 |
| 1000 | AFK108M25H32T-F | 250.0 | 0.14 | 0.060 | 0.060 | 1100 | H | 12.5 x 13.5 | 200 |
| 1500 | AFK158M25P44T-F | 375.0 | 0.14 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 2200 | AFK228M25P44T-F | 550.0 | 0.16 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 3300 | AFK338M25R44T-F | 825.0 | 0.18 | 0.033 | 0.033 | 2060 | R | 18 x 16.5 | 125 |
| 35 Vdc (44 Vdc Surge) | | | | | | | | | |
| 4.7 | AFK475M35B12T-F | 3.0 | 0.12 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 10 | AFK106M35B12T-F | 3.5 | 0.12 | 1.350 | 1.350 | 90 | B | 4 x 5.8 | 2000 |
| 10 | AFK106M35C12T-F | 3.5 | 0.12 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 22 | AFK226M35C12T-F | 7.7 | 0.12 | 0.700 | 0.700 | 160 | C | 5 x 5.8 | 1000 |
| 33 | AFK336M35D16T-F | 11.6 | 0.12 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 47 | AFK476M35D16T-F | 16.5 | 0.12 | 0.360 | 0.360 | 240 | D | 6.3 x 5.8 | 1000 |
| 68 | AFK686M35X16T-F | 23.8 | 0.12 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 100 | AFK107M35X16T-F | 35.0 | 0.12 | 0.340 | 0.340 | 280 | X | 6.3 x 7.7 | 900 |
| 100 | AFK107M35F24T-F | 35.0 | 0.12 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 150 | AFK157M35F24T-F | 52.5 | 0.12 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 220 | AFK227M35F24T-F | 77.0 | 0.12 | 0.160 | 0.160 | 600 | F | 8 x 10.2 | 500 |
| 330 | AFK337M35G24T-F | 115.5 | 0.12 | 0.080 | 0.080 | 850 | G | 10 x 10.2 | 500 |
| 470 | AFK477M35H32T-F | 164.5 | 0.12 | 0.060 | 0.060 | 1100 | H | 12.5 x 13.5 | 200 |
| 680 | AFK687M35H32T-F | 238.0 | 0.12 | 0.060 | 0.060 | 1100 | H | 12.5 x 13.5 | 200 |
| 1000 | AFK108M35P44T-F | 350.0 | 0.12 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 1500 | AFK158M35P44T-F | 525.0 | 0.12 | 0.035 | 0.035 | 1800 | P | 16 x 16.5 | 125 |
| 50 Vdc (63 Vdc Surge) | | | | | | | | | |
| 4.7 | AFK475M50B12T-F | 3.0 | 0.10 | 2.900 | 2.900 | 60 | B | 4 x 5.8 | 2000 |
| 10 | AFK106M50C12T-F | 5.0 | 0.10 | 1.520 | 1.520 | 85 | C | 5 x 5.8 | 1000 |
| 10 | AFK106M50D16T-F | 5.0 | 0.10 | 0.880 | 0.880 | 165 | D | 6.3 x 5.8 | 1000 |
| 22 | AFK226M50D16T-F | 11.0 | 0.10 | 0.880 | 0.880 | 165 | D | 6.3 x 5.8 | 1000 |
| 33 | AFK336M50X16T-F | 16.5 | 0.10 | 0.680 | 0.680 | 195 | X | 6.3 x 7.7 | 900 |
| 33 | AFK336M50E16T-F | 16.5 | 0.10 | 0.680 | 0.680 | 195 | E | 8 x 6.2 | 1000 |
| 47 | AFK476M50X16T-F | 23.5 | 0.10 | 0.680 | 0.680 | 195 | X | 6.3 x 7.7 | 900 |
| 47 | AFK476M50E16T-F | 23.5 | 0.10 | 0.680 | 0.680 | 195 | E | 8 x 6.2 | 1000 |
| 100 | AFK107M50F24T-F | 50.0 | 0.10 | 0.340 | 0.340 | 350 | F | 8 x 10.2 | 500 |

Type AFK -55 °C to 105 °C

SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

| Cap (µF) | Catalog Part Number | Max. DCL 2 min (µA) | Max. Dissipation Factor @120 Hz/20 °C | Max. ESR @100 kHz/20 °C (Ω) | Impedance @ 100 kHz/20 °C (Ω) | Max. Ripple Current @ 100 kHz/105 °C (mA) | Case Code | Size D x L (mm) | Quantity per Reel |
|---------------------------------|---------------------|---------------------|---------------------------------------|-----------------------------|-------------------------------|---|-----------|-----------------|-------------------|
| 50 Vdc (63 Vdc Surge) | | | | | | | | | |
| 150 | AFK157M50G24T-F | 75.0 | 0.10 | 0.180 | 0.180 | 670 | G | 10 x 10.2 | 500 |
| 220 | AFK227M50G24T-F | 110.0 | 0.10 | 0.180 | 0.180 | 670 | G | 10 x 10.2 | 500 |
| 330 | AFK337M50H32T-F | 165.0 | 0.10 | 0.120 | 0.120 | 900 | H | 12.5 x 13.5 | 200 |
| 390 | AFK397M50H32T-F | 195.0 | 0.10 | 0.120 | 0.120 | 900 | H | 12.5 x 13.6 | 200 |
| 470 | AFK477M50P44T-F | 235.0 | 0.10 | 0.073 | 0.073 | 1610 | P | 16 x 16.5 | 125 |
| 560 | AFK567M50P44T-F | 280.0 | 0.10 | 0.073 | 0.073 | 1610 | P | 16 x 16.5 | 125 |
| 680 | AFK687M50P44T-F | 340.0 | 0.10 | 0.073 | 0.073 | 1610 | P | 16 x 16.5 | 125 |
| 1000 | AFK108M50P44T-F | 500.0 | 0.10 | 0.073 | 0.073 | 1610 | P | 16 x 16.5 | 125 |
| 63 Vdc (75 Vdc Surge) | | | | | | | | | |
| 4.7 | AFK475M63C12T-F | 3.0 | 0.08 | 3.000 | 3.000 | 50 | C | 5 x 5.8 | 1000 |
| 10 | AFK106M63D16T-F | 6.3 | 0.08 | 1.500 | 1.500 | 80 | D | 6.3 x 5.8 | 1000 |
| 22 | AFK226M63X16T-F | 13.9 | 0.08 | 1.200 | 1.200 | 120 | X | 6.3 x 7.7 | 900 |
| 22 | AFK226M63E16T-F | 13.9 | 0.08 | 1.200 | 1.200 | 120 | E | 8 x 6.2 | 1000 |
| 33 | AFK336M63F24T-F | 20.8 | 0.08 | 0.650 | 0.650 | 250 | F | 8 x 10.2 | 500 |
| 47 | AFK476M63F24T-F | 29.6 | 0.08 | 0.650 | 0.650 | 250 | F | 8 x 10.2 | 500 |
| 68 | AFK686M63G24T-F | 42.8 | 0.08 | 0.350 | 0.350 | 400 | G | 10 x 10.2 | 500 |
| 100 | AFK107M63G24T-F | 63.0 | 0.08 | 0.350 | 0.350 | 400 | G | 10 x 10.2 | 500 |
| 150 | AFK157M63H32T-F | 94.5 | 0.08 | 0.160 | 0.160 | 800 | H | 12.5 x 13.5 | 200 |
| 220 | AFK227M63H32T-F | 138.6 | 0.08 | 0.160 | 0.160 | 800 | H | 12.5 x 13.5 | 200 |
| 470 | AFK477M63P44T-F | 296.1 | 0.08 | 0.082 | 0.082 | 1410 | P | 16 x 16.5 | 125 |
| 680 | AFK687M63R44T-F | 428.4 | 0.08 | 0.080 | 0.080 | 1690 | R | 18 x 16.5 | 125 |
| 80 Vdc (100 Vdc Surge) | | | | | | | | | |
| 3.3 | AFK335M80C12T-F | 3.0 | 0.08 | 5.00 | 5.00 | 25 | C | 5 x 5.8 | 1000 |
| 4.7 | AFK475M80D16T-F | 3.8 | 0.08 | 3.00 | 3.00 | 40 | D | 6.3 x 5.8 | 1000 |
| 10.0 | AFK106M80X16T-F | 8.0 | 0.08 | 2.40 | 2.40 | 60 | X | 6.3 x 7.7 | 900 |
| 10.0 | AFK106M80E16T-F | 8.0 | 0.08 | 2.40 | 2.40 | 60 | E | 8 x 6.2 | 1000 |
| 22.0 | AFK226M80F24T-F | 17.6 | 0.08 | 1.30 | 1.30 | 130 | F | 8 x 10.2 | 500 |
| 33.0 | AFK336M80F24T-F | 26.4 | 0.08 | 1.30 | 1.30 | 130 | F | 8 x 10.2 | 500 |
| 47.0 | AFK476M80G24T-F | 37.6 | 0.08 | 0.70 | 0.70 | 200 | G | 10 x 10.2 | 500 |
| 68.0 | AFK686M80H32T-F | 54.4 | 0.08 | 0.32 | 0.32 | 500 | H | 12.5 x 13.5 | 200 |
| 100.0 | AFK107M80H32T-F | 80.0 | 0.08 | 0.32 | 0.32 | 500 | H | 12.5 x 13.5 | 200 |
| 150.0 | AFK157M80H32T-F | 120.0 | 0.08 | 0.32 | 0.32 | 500 | H | 12.5 x 13.5 | 200 |
| 330.0 | AFK337M80P44T-F | 264.0 | 0.08 | 0.17 | 0.17 | 793 | P | 16 x 16.5 | 125 |
| 470.0 | AFK477M80R44T-F | 376.0 | 0.08 | 0.15 | 0.15 | 917 | R | 18 x 16.5 | 125 |
| 100 Vdc (125 Vdc Surge) | | | | | | | | | |
| 22.0 | AFK226M2AF24T-F | 22.0 | 0.07 | 1.30 | 1.30 | 130 | F | 8 x 10.2 | 500 |
| 33.0 | AFK336M2AG24T-F | 33.0 | 0.07 | 0.70 | 0.70 | 200 | G | 10 x 10.2 | 500 |
| 47.0 | AFK476M2AH32T-F | 47.0 | 0.07 | 0.32 | 0.32 | 500 | H | 12.5 x 13.5 | 200 |
| 68.0 | AFK686M2AH32T-F | 68.0 | 0.07 | 0.32 | 0.32 | 500 | H | 12.5 x 13.5 | 200 |
| 100.0 | AFK107M2AP44T-F | 100.0 | 0.07 | 0.17 | 0.17 | 793 | P | 16 x 16.5 | 125 |
| 150.0 | AFK157M2AP44T-F | 150.0 | 0.07 | 0.17 | 0.17 | 793 | P | 16 x 16.5 | 125 |
| 220.0 | AFK227M2AR44T-F | 220.0 | 0.07 | 0.15 | 0.15 | 917 | R | 18 x 16.5 | 125 |
| 330.0 | AFK337M2AR44T-F | 330.0 | 0.07 | 0.15 | 0.15 | 917 | R | 18 x 16.5 | 125 |

Type AFK -55 °C to 105 °C

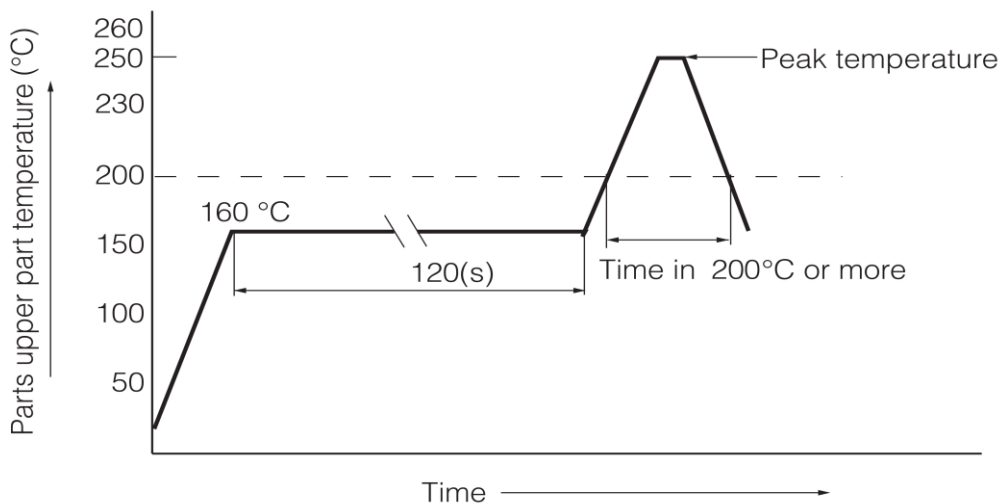
SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

Part Numbering System

| AFK | 106 | M | 16 | B | 12T | -F |
|----------------|-----------------|-----------------------|--------------|-------------|-------------------|----------------|
| Type | Capacitance | Capacitance Tolerance | Voltage Code | Case Code | Packaging Code | RoHS Compliant |
| 105 = 1.0 μF | 106 = 10.0 μF | M = ±20% | 06 = 6.3 Vdc | 35 = 35 Vdc | 12 = Carrier tape | |
| 107 = 100.0 μF | 108 = 1000.0 μF | | 10 = 10 Vdc | 50 = 50 Vdc | Width (mm) | |
| | | | 16 = 16 Vdc | 63 = 63 Vdc | T = Tape & Reel | |
| | | | 25 = 25 Vdc | 80 = 80 Vdc | B = Bulk | |
| | | | 2A = 100 Vdc | | | |

Reflow Solder

| Diameter | 4 - 6.3mm | 8 - 10mm | 12.5 - 18mm |
|-------------------|-----------|----------|-------------|
| Peak Temperature | 250°C | 235°C | 230°C |
| Duration at Peak | 5s | 5s | 5s |
| Time ≥200°C | 60s | 60s | 20s |
| Number of Reflows | 1 | 1 | 1 |

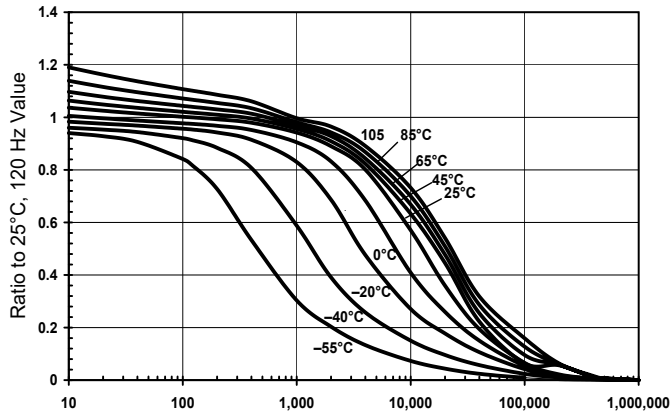


Type AFK -55 °C to 105 °C

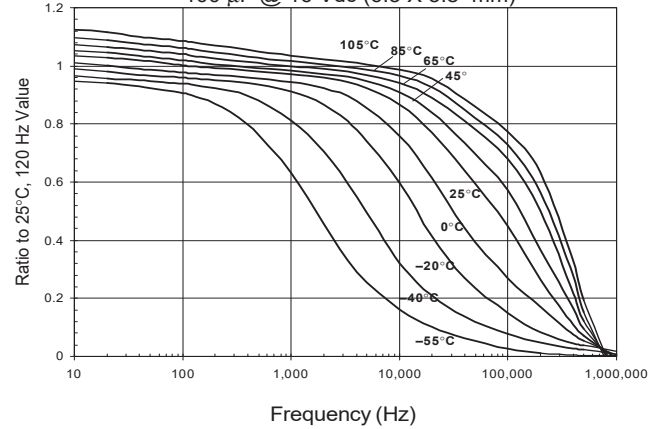
SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

Typical Performance Curves

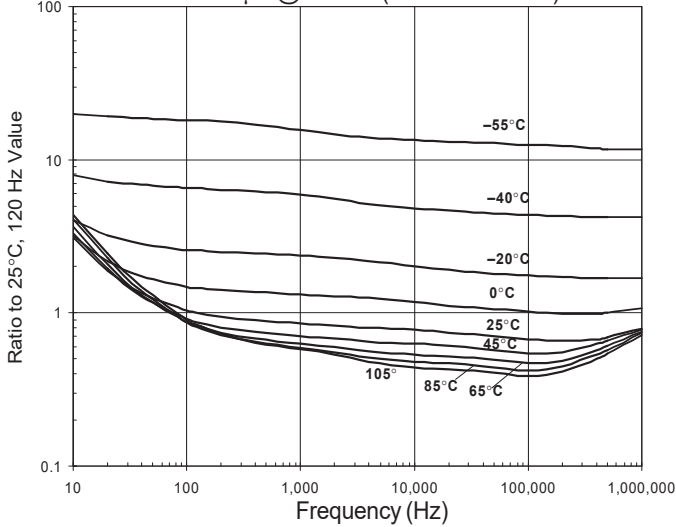
Capacitance vs. Temperature and Frequency
3300 μ F/6.3Vdc (12.5 x 13.5 mm)



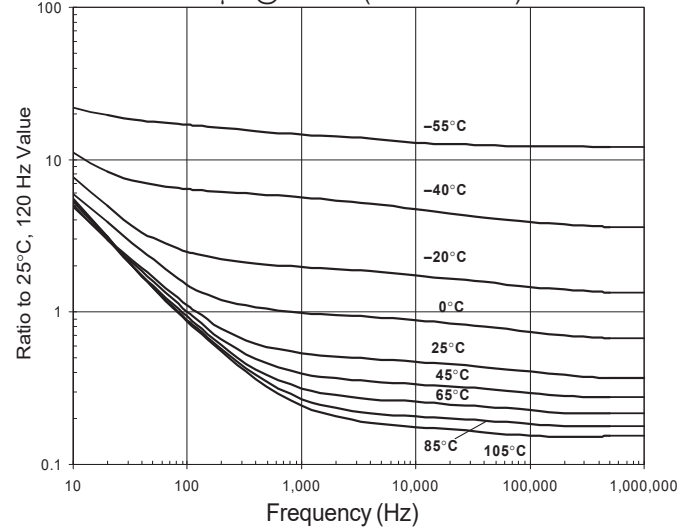
Capacitance vs. Temperature & Frequency
100 μ F @ 16 Vdc (6.3 X 5.8 mm)



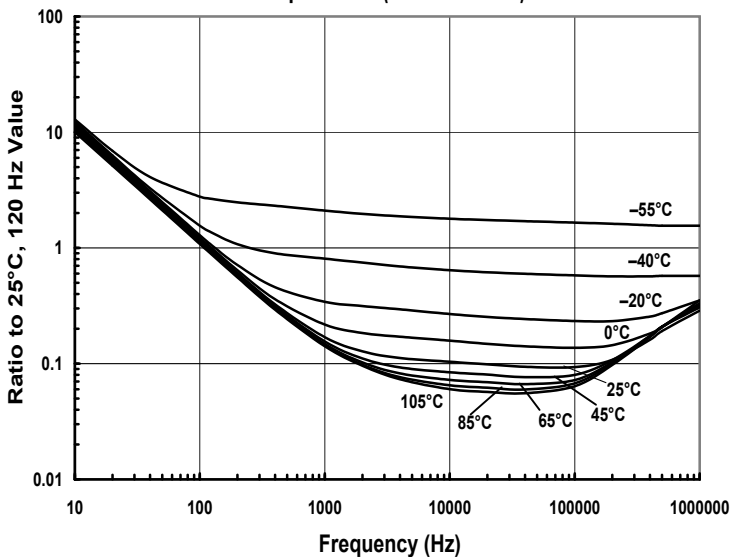
ESR vs. Temperature and Frequency
3300 μ F @ 6.3 Vdc (12.5 X 13.5 mm)



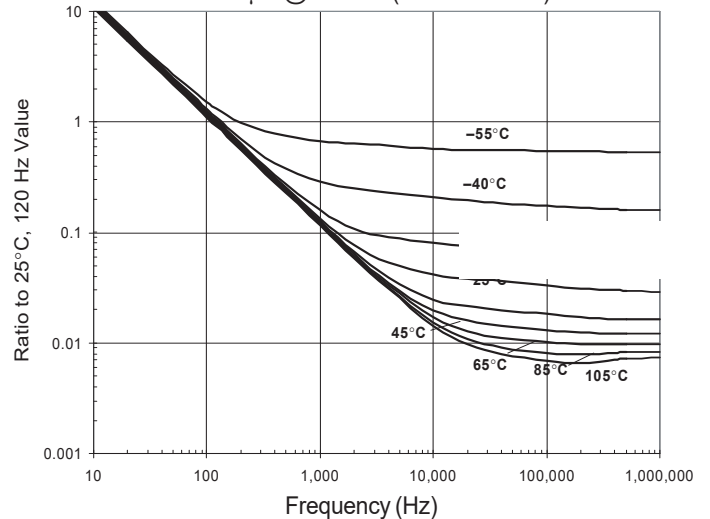
ESR vs. Temperature and Frequency
100 μ F @ 16 Vdc (6.3 X 5.8 mm)



Impedance vs. Temperature and Frequency
3300 μ F /6.3 V (12.5 x13.5mm)



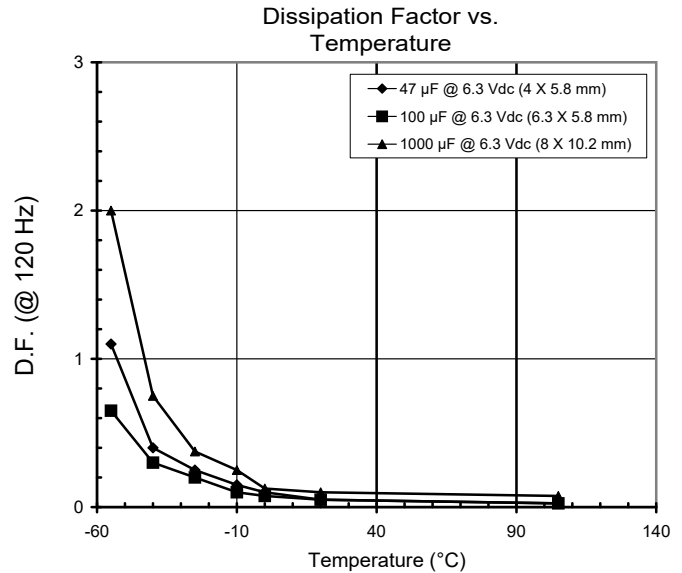
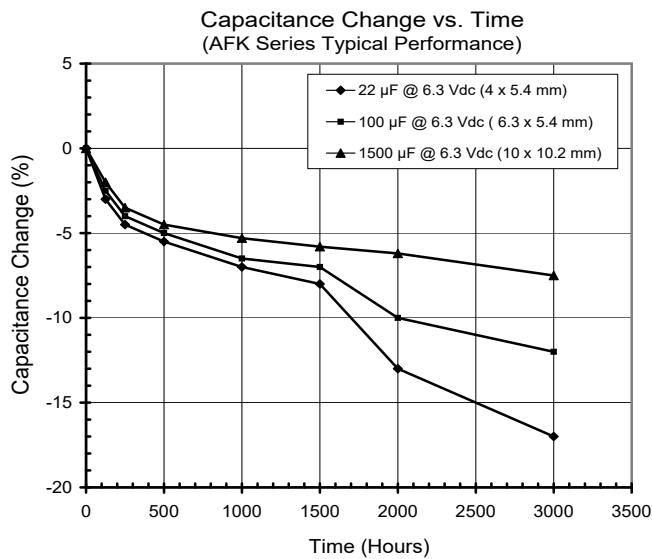
Impedance vs. Temperature and Frequency
100 μ F @ 16 Vdc (6.3 X 5.8 mm)



Type AFK -55 °C to 105 °C

SMT Aluminum Electrolytic Capacitors - Lowest E.S.R., 105 °C

Typical Performance Curves



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