



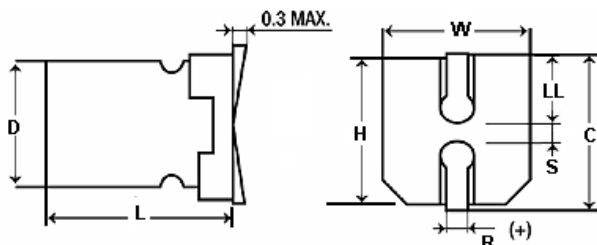
FEATURES

Small Size – Long Life – Low Impedance

APPLICATIONS

Filtering – Bypass/ Coupling – De-Coupling

| | | | | | | | |
|---|-----------------------|---|-----------------------------------|-----------|-----------|-----------|-----------|
| Operating Temperature Range | | -55°C to +105°C | | | | | |
| Capacitance Tolerance | | +20% at 120 Hz, 20°C | | | | | |
| Surge Voltage | WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | SVDC | 7.9 | 13 | 20 | 32 | 44 | 63 |
| Dissipation Factor | WVDC | 6.3 | 10 | 16 | 35 | 50 | |
| | Tan δ | .26 | .19 | .16 | .12 | .12 | |
| Leakage Current | | 2 Minutes | | | | | |
| | | .01CV or 3uA, Whichever is greater | | | | | |
| Low Temperature Stability Impedance Ratio (120 Hz) | Rated WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | -25°C to +20°C | 2 | 2 | 2 | 2 | 2 | 2 |
| | -40°C to +20°C | 3 | 3 | 3 | 3 | 3 | 3 |
| Load Life | | 5000 hours (3000 hours for D=4,5,6.3mm) at 105°C with rated WVDC | | | | | |
| | | Capacitance Change | ≤30% of initial measured value | | | | |
| | | Dissipation Factor | ≤200% of maximum specified value | | | | |
| | | Leakage Current | Not more than the specified value | | | | |
| Shelf Life | | 1000 hours at 85°C with no voltage applied | | | | | |
| | | Capacitance Change | ≤30% of initial measured value | | | | |
| | | Dissipation Factor | ≤200% of maximum specified value | | | | |
| | | Leakage Current | Not more than the specified value | | | | |
| Resistance to Soldering Heat | | Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminations facing downward will fulfill the following conditions after being cooled to room temperature | | | | | |
| | | Capacitance Change | ≤10% of initial measured value | | | | |
| | | Dissipation Factor | ≤100% of maximum specified value | | | | |
| | | Leakage Current | ≤100% of maximum specified value | | | | |
| Ripple Current Multipliers | | Frequency (Hz) | | | | | |
| | | 120 | 1k | 10k | 100k | | |
| | | 0.70 | 0.80 | 0.90 | 1.00 | | |



| D | L | W +0.2 | H +0.2 | C max | R | LL +0.2 | S +0.2 |
|-----|---------------|-----------|-----------|----------|----------|------------|-----------|
| 4 | 5.4 +0.3/-0.1 | 4.3 | 4.8 | 5.5 | 0.65±0.1 | 1.0 | - |
| 5 | 5.4 +0.3/-0.1 | 5.3 | 5.8 | 6.5 | 0.65±0.1 | 1.5 | - |
| 6.3 | 5.4 +0.3/-0.1 | 6.6 | 7.1 | 7.8 | 0.65±0.1 | 1.8 | - |
| 6.3 | 7.7 +/- 0.3 | 6.6 | 7.1 | 7.8 | 0.65±0.1 | 1.8 | - |
| 8 | 6.2 +/- 0.3 | 8.3 | 8.8 | 9.5 | 0.65±0.1 | 2.2 | - |
| 8 | 10.2 +/- 0.3 | 8.3 | 8.6 | 10.0 | 0.90±0.2 | 3.1 | - |
| 10 | 10.2 +/- 0.3 | 10.3 | 10.6 | 12.0 | 0.90±0.2 | 4.6 | - |

ATB

+105°C, Low Impedance, up to 5000 hours

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Impedance Ω +20°C, 100kHz | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxDL (mm) |
|------------------|------|----------------|-------------------------------|---------------------------|---|----------------|
| 1 | 50 | ATB105M050 | 159.16 | 5 | 60 | 4x5.4 |
| 2.2 | 50 | ATB225M050 | 72.34 | 5 | 60 | 4x5.4 |
| 3.3 | 50 | ATB335M050 | 48.23 | 5 | 60 | 4x5.4 |
| 4.7 | 35 | ATB475M035 | 33.86 | 1.93 | 90 | 4x5.4 |
| 4.7 | 50 | ATB475M050 | 33.86 | 4 | 95 | 5x5.4 |
| 10 | 16 | ATB106M016 | 21.22 | 1.9 | 90 | 4x5.4 |
| 10 | 25 | ATB106M025 | 18.57 | 1.93 | 90 | 4x5.4 |
| 10 | 35 | ATB106M035 | 15.92 | 1 | 160 | 5x5.4 |
| 10 | 50 | ATB106M050 | 15.92 | 2.6 | 140 | 6.3x5.4 |
| 22 | 6.3 | ATB226M6R3 | 7.23 | 1.3 | 90 | 4x5.4 |
| 22 | 10 | ATB226M010 | 15.67 | 1.93 | 90 | 4x5.4 |
| 22 | 16 | ATB226M016 | 11.45 | 1.93 | 160 | 5x5.4 |
| 22 | 25 | ATB226M025 | 9.65 | 1 | 160 | 5x5.4 |
| 22 | 35 | ATB226M035 | 8.44 | 1 | 160 | 5x5.4 |
| 22 | 50 | ATB226M050 | 7.23 | 1 | 230 | 6.3x7.7 |
| 33 | 6.3 | ATB336M6R3 | 4.82 | 0.5 | 90 | 4x5.4 |
| 33 | 10 | ATB336M010 | 10.45 | 1.93 | 160 | 5x5.4 |
| 33 | 16 | ATB336M016 | 7.64 | 1 | 240 | 6.3x5.4 |
| 33 | 25 | ATB336M025 | 6.43 | 0.52 | 240 | 6.3x5.4 |
| 33 | 35 | ATB336M035 | 5.63 | 0.52 | 240 | 6.3x5.4 |
| 33 | 50 | ATB336M050 | 4.82 | 0.52 | 350 | 8x10.2 |
| 47 | 6.3 | ATB476M6R3 | 3.39 | 0.34 | 160 | 5x5.4 |
| 47 | 10 | ATB476M010 | 7.34 | 1 | 190 | 6.3x5.4 |
| 47 | 16 | ATB476M016 | 5.36 | 0.52 | 240 | 6.3x5.4 |
| 47 | 25 | ATB476M025 | 4.52 | 0.52 | 240 | 6.3x5.4 |
| 47 | 35 | ATB476M035 | 3.95 | 0.52 | 280 | 6.3x7.7 |
| 47 | 50 | ATB476M050 | 3.39 | 0.34 | 670 | 10x10.2 |
| 68 | 25 | ATB686M025 | 2.73 | 0.34 | 280 | 6.3x7.7 |
| 68 | 35 | ATB686M035 | 2.34 | 0.34 | 280 | 6.3x7.7 |
| 68 | 50 | ATB686M050 | 2.34 | 0.34 | 670 | 10x10.2 |
| 100 | 6.3 | ATB107M6R3 | 1.59 | 0.34 | 240 | 6.3x5.4 |

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Impedance Ω +20°C, 100kHz | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxDL (mm) |
|------------------|------|----------------|-------------------------------|---------------------------|---|----------------|
| 100 | 10 | ATB107M010 | 3.45 | 0.52 | 190 | 6.3x5.4 |
| 100 | 16 | ATB107M016 | 2.52 | 0.52 | 280 | 6.3x7.7 |
| 100 | 25 | ATB107M025 | 2.12 | 0.34 | 300 | 6.3x7.7 |
| 100 | 35 | ATB107M035 | 1.86 | 0.34 | 600 | 8x10.2 |
| 100 | 50 | ATB107M050 | 1.59 | 0.16 | 670 | 10x10.2 |
| 150 | 6.3 | ATB157M6R3 | 1.06 | 0.34 | 240 | 6.3x7.7 |
| 150 | 10 | ATB157M010 | 2.3 | 0.3 | 240 | 6.3x7.7 |
| 150 | 16 | ATB157M016 | 1.68 | 0.34 | 370 | 8x10.2 |
| 150 | 25 | ATB157M025 | 1.41 | 0.22 | 600 | 8x10.2 |
| 150 | 35 | ATB157M035 | 1.24 | 0.16 | 850 | 10x10.2 |
| 150 | 50 | ATB157M050 | 1.06 | 0.12 | 670 | 10x10.2 |
| 220 | 6.3 | ATB227M6R3 | 0.72 | 0.34 | 240 | 6.3x7.7 |
| 220 | 10 | ATB227M010 | 1.57 | 0.3 | 600 | 8x10.2 |
| 220 | 16 | ATB227M016 | 1.15 | 0.16 | 370 | 8x10.2 |
| 220 | 25 | ATB227M025 | 0.96 | 0.22 | 600 | 8x10.2 |
| 220 | 35 | ATB227M035 | 0.84 | 0.16 | 850 | 10x10.2 |
| 220 | 50 | ATB227M050 | 0.72 | 0.12 | 670 | 10x10.2 |
| 330 | 6.3 | ATB337M6R3 | 0.48 | 0.12 | 600 | 8x10.2 |
| 330 | 10 | ATB337M010 | 1.04 | 0.16 | 600 | 8x10.2 |
| 330 | 16 | ATB337M016 | 0.76 | 0.16 | 600 | 8x10.2 |
| 330 | 25 | ATB337M025 | 0.64 | 0.16 | 850 | 10x10.2 |
| 330 | 35 | ATB337M035 | 0.56 | 0.12 | 850 | 10x10.2 |
| 470 | 6.3 | ATB477M6R3 | 0.4 | 0.12 | 600 | 8x10.2 |
| 470 | 10 | ATB477M010 | 0.73 | 0.16 | 850 | 10x10.2 |
| 470 | 16 | ATB477M016 | 0.54 | 0.12 | 850 | 10x10.2 |
| 470 | 25 | ATB477M025 | 0.45 | 0.12 | 850 | 10x10.2 |
| 680 | 6.3 | ATB687M6R3 | 0.31 | 0.12 | 850 | 10x10.2 |
| 680 | 10 | ATB687M010 | 0.51 | 0.12 | 850 | 10x10.2 |
| 680 | 16 | ATB687M016 | 0.37 | 0.12 | 850 | 10x10.2 |
| 1000 | 6.3 | ATB108M6R3 | 0.25 | 0.12 | 850 | 10x10.2 |
| 1000 | 10 | ATB108M010 | 0.34 | 0.12 | 850 | 10x10.2 |