

### FEATURES

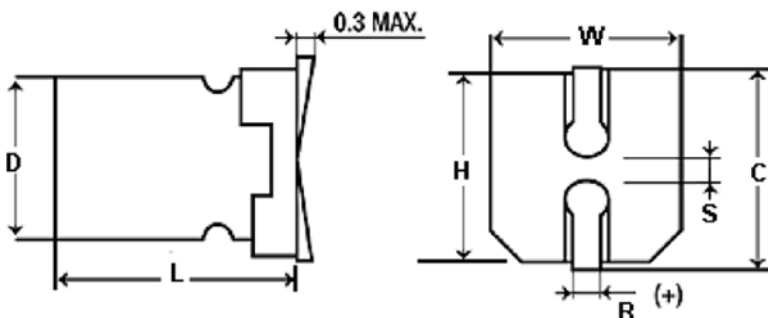
Small Size – Long Life – Low Impedance

### APPLICATIONS

Filtering – Bypass/ Coupling – De-Coupling

<b>Operating Temperature Range</b>		<b>-55°C to +105°C</b>										
<b>Capacitance Tolerance</b>		<b>+20% at 120 Hz, 20°C</b>										
<b>Surge Voltage</b>	<b>WVDC</b>	<b>6.3</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	<b>63</b>	<b>80</b>	<b>100</b>		
	<b>SVDC</b>	7.9	13	20	32	44	63	79	100	125		
<b>Dissipation Factor</b>	<b>WVDC</b>	<b>6.3</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	<b>63</b>	<b>80</b>	<b>100</b>		
	<b>Tan δ</b>	.26	.19	.16	.14	.13	.10	.08	.08	.07		
<b>Leakage Current</b>		<b>2 Minutes</b>										
		.01CV or 3µA, whichever is greater										
<b>Low Temperature Stability Impedance Ratio (120 Hz)</b>	<b>Rated WVDC</b>	<b>6.3</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	<b>63</b>	<b>80</b>	<b>100</b>		
	<b>-25°C to +20°C</b>	2	2	2	2	2	2	2	2	2		
	<b>-40°C to +20°C</b>	3	3	3	3	3	3	3	3	3		
<b>Load Life</b>		<b>5000 hours (3000 hours for D=4,5,6.3mm and 8x6.5mm) at 105°C with rated WVDC</b>										
		<b>Capacitance Change</b>	<30% of initial measured value									
		<b>Dissipation Factor</b>	<200% of maximum specified value									
		<b>Leakage Current</b>	Not more than the specified value									
<b>Shelf Life</b>		<b>1000 hours at 85°C with no voltage applied</b>										
		<b>Capacitance Change</b>	<30% of initial measured value									
		<b>Dissipation Factor</b>	<200% of maximum specified value									
		<b>Leakage Current</b>	Not more than the specified value									
<b>Resistance to Soldering Heat</b>		<b>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</b>										
		<b>Capacitance Change</b>	<10% of initial measured value									
		<b>Dissipation Factor</b>	<100% of maximum specified value									
		<b>Leakage Current</b>	<100% of maximum specified value									
<b>Ripple Current Multipliers</b>		<b>Frequency (Hz)</b>										
		120	1k	10k	100k							
		0.70	0.80	0.90	1.00							

D	L	W max	H max	C max	R	S
4	5.4 +0.3	4.5	5.0	5.5	0.65 ±0.15	1.0 ±0.2
4	5.8 +0.3	4.5	5.0	5.5	0.65 ±0.15	1.0 ±0.2
5	5.4 +0.3	5.5	6.0	6.5	0.65 ±0.15	1.4 ±0.3
5	5.8 +0.3	5.5	6.0	6.5	0.65 ±0.15	1.4 ±0.3
6.3	5.4 +0.3	6.8	7.3	7.8	0.65 ±0.15	2.2 ±0.3
6.3	5.8 +0.3	6.8	7.3	7.8	0.65 ±0.15	2.2 ±0.3
6.3	7.7 +0.3	6.8	7.3	7.8	0.65 ±0.15	2.2 ±0.3
8	6.5 +0.3	8.5	9.0	9.5	0.65 ±0.15	2.2 ±0.3
8	10.2 +0.3	8.5	8.8	10.0	0.9 ±0.2	3.1 ±0.3
10	10.2 +0.3	10.5	10.8	12.0	1.0 ±0.3	4.6 ±0.3
12.5	13.5 +0.5	13.2	13.2	13.9	1.1 ±0.3	4.4 ±0.3
12.5	16.0 +0.5	13.2	13.2	13.9	1.1 ±0.3	4.4 ±0.3
16	16.5 +0.5	17.2	17.2	18.2	1.1 ±0.3	6.4 ±0.3
16	21.5 +0.5	17.2	17.2	18.2	1.1 ±0.3	6.4 ±0.3
18	16.5 +0.5	19.2	19.2	20.2	1.1 ±0.3	6.4 ±0.3
18	21.5 +0.5	19.2	19.2	20.2	1.1 ±0.3	6.4 ±0.3



# ATB

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

WVDC	Capacitance (µF)	IC PART NUMBER	Impedance Ω +20°C, 100kHz	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
6.3	22	ATB226M6R3	1.93	90	4x5.4
6.3	33	ATB336M6R3	1.93	90	4x5.4
6.3	47	ATB476M6R3	1	160	5x5.4
6.3	100	ATB107M6R3	0.52	240	6.3x5.4
6.3	150	ATB157M6R3	0.3	240	6.3x7.7
6.3	220	ATB227M6R3	0.3	240	6.3x7.7
6.3	330	ATB337M6R3E077	0.34	280	6.3x7.7
6.3	330	ATB337M6R3	0.16	600	8x10.2
6.3	470	ATB477M6R3	0.16	600	8x10.2
6.3	680	ATB687M6R3F102	0.17	450	8x10.2
6.3	680	ATB687M6R3	0.12	850	10x10.2
6.3	1000	ATB108M6R3F102	0.17	450	8x10.2
6.3	1000	ATB108M6R3	0.12	850	10x10.2
6.3	1500	ATB158M6R3	0.09	670	10x10.2
6.3	2200	ATB228M6R3	0.07	820	12.5x13.5
6.3	3300	ATB338M6R3	0.06	950	12.5x16
6.3	4700	ATB478M6R3	0.054	1260	16x16.5
6.3	6800	ATB688M6R3K215	0.038	1630	16x21.5
6.3	6800	ATB688M6R3	0.048	1500	18x16.5
6.3	8200	ATB828M6R3K215	0.038	1630	16x21.5
6.3	8200	ATB828M6R3	0.048	1500	18x16.5
10	22	ATB226M010	1.93	90	4x5.4
10	33	ATB336M010	1	160	5x5.4
10	47	ATB476M010	0.52	190	6.3x5.4
10	100	ATB107M010	0.52	190	6.3x5.4
10	150	ATB157M010	0.34	240	6.3x7.7
10	220	ATB227M010	0.16	600	8x10.2
10	330	ATB337M010	0.16	600	8x10.2
10	470	ATB477M010F102	0.17	450	8x10.2
10	470	ATB477M010	0.12	850	10x10.2
10	680	ATB687M010	0.12	850	10x10.2
10	1000	ATB108M010	0.12	850	10x10.2
10	1500	ATB158M010	0.07	820	12.5x13.5
10	2200	ATB228M010	0.06	950	12.5x16
10	3300	ATB338M010	0.054	1260	16x16.5
10	4700	ATB478M010	0.054	1260	16x16.5
10	6800	ATB688M010K215	0.038	1630	16x21.5
10	6800	ATB688M010	0.048	1500	18x16.5
10	8200	ATB828M010	0.038	1750	18x21.5
16	10	ATB106M016	1.93	90	4x5.4
16	22	ATB226M016	1	160	5x5.4
16	33	ATB336M016	0.52	240	6.3x5.4
16	47	ATB476M016	0.52	240	6.3x5.4
16	100	ATB107M016E058	0.52	190	6.3x5.8
16	100	ATB107M016	0.34	280	6.3x7.7
16	150	ATB157M016	0.22	370	8x10.2
16	220	ATB227M016E077	0.34	280	6.3x7.7
16	220	ATB227M016	0.22	370	8x10.2
16	330	ATB337M016	0.16	600	8x10.2
16	470	ATB477M016F102	0.16	600	8x10.2
16	470	ATB477M016	0.12	850	10x10.2
16	680	ATB687M016	0.12	850	10x10.2
16	1000	ATB108M016	0.07	820	12.5x13.5
16	1500	ATB158M016	0.06	950	12.5x16
16	2200	ATB228M016	0.054	1260	16x16.5
16	3300	ATB338M016	0.054	1260	16x16.5
16	3300	ATB338M016K215	0.038	1630	16x21.5
16	4700	ATB478M016K215	0.038	1630	16x21.5

WVDC	Capacitance (µF)	IC PART NUMBER	Impedance Ω +20°C, 100kHz	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
16	4700	ATB478M016	0.048	1500	18x16.5
25	10	ATB106M025	1.93	90	4x5.4
25	22	ATB226M025	1	160	5x5.4
25	33	ATB336M025	0.52	240	6.3x5.4
25	47	ATB476M025	0.52	240	6.3x5.4
25	68	ATB686M025	0.34	280	6.3x7.7
25	100	ATB107M025	0.34	300	6.3x7.7
25	150	ATB157M025	0.16	600	8x10.2
25	220	ATB227M025	0.16	600	8x10.2
25	330	ATB337M025F102	0.17	450	8x10.2
25	330	ATB337M025	0.16	850	10x10.2
25	470	ATB477M025	0.12	850	10x10.2
25	680	ATB687M025H135	0.07	820	12.5x13.5
25	1000	ATB108M025	0.06	950	12.5x16
25	1500	ATB158M025	0.054	1260	16x16.5
25	2200	ATB228M025	0.054	1260	16x16.5
25	3300	ATB338M025K215	0.038	1630	16x21.5
25	3300	ATB338M025	0.048	1500	18x16.5
25	3300	ATB338M025L215	0.038	1750	18x21.5
35	4.7	ATB475M035	1.93	90	4x5.4
35	10	ATB106M035	1	160	5x5.4
35	22	ATB226M035	1	160	5x5.4
35	33	ATB336M035	0.52	240	6.3x5.4
35	47	ATB476M035E058	0.52	240	6.3x5.8
35	47	ATB476M035	0.34	280	6.3x7.7
35	68	ATB686M035	0.34	280	6.3x7.7
35	100	ATB107M035E077	0.34	230	6.3x7.7
35	100	ATB107M035	0.16	600	8x10.2
35	150	ATB157M035F102	0.17	450	8x10.2
35	150	ATB157M035	0.12	850	10x10.2
35	220	ATB227M035F102	0.16	600	8x10.2
35	220	ATB227M035	0.12	850	10x10.2
35	330	ATB337M035	0.12	850	10x10.2
35	330	ATB337M035H135	0.07	820	12.5x13.5
35	470	ATB477M035H160	0.06	950	12.5x16
35	680	ATB687M035	0.06	950	12.5x16
35	1000	ATB108M035	0.054	1260	16x16.5
35	1500	ATB158M035K215	0.038	1630	16x21.5
35	2200	ATB228M035	0.038	1750	18x21.5
50	1	ATB105M050	5	60	4x5.4
50	2.2	ATB225M050	5	60	4x5.4
50	3.3	ATB335M050	5	60	4x5.4
50	4.7	ATB475M050	4	95	5x5.4
50	10	ATB106M050D058	1.52	85	5x5.8
50	10	ATB106M050	2.6	140	6.3x5.4
50	22	ATB226M050E058	2	70	6.3x5.8
50	22	ATB226M050	1.3	230	6.3x7.7
50	33	ATB336M050	0.5	350	8x10.2
50	47	ATB476M050E077	1.3	230	6.3x7.7
50	47	ATB476M050F065	0.34	350	8x6.5
50	47	ATB476M050	0.34	670	10x10.2
50	68	ATB686M050F102	0.34	369	8x10.2
50	68	ATB686M050	0.34	670	10x10.2
50	100	ATB107M050F102	0.34	350	8x10.2
50	100	ATB107M050	0.34	670	10x10.2
50	150	ATB157M050	0.34	670	10x10.2
50	220	ATB227M050	0.34	670	10x10.2
50	330	ATB337M050	0.12	650	12.5x13.5

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# ATB

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

WVDC	Capacitance (μF)	IC PART NUMBER	Impedance Ω +20°C, 100kHz	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
50	470	ATB477M050	0.073	1000	16x16.5
50	680	ATB687M050	0.073	1000	16x16.5
50	1000	ATB108M050K165	0.073	1000	16x16.5
50	1000	ATB108M050L165	0.066	1500	18x16.5
50	1500	ATB158M050	0.05	1620	18x21.5
63	33	ATB336M063	0.5	280	8x10.2
63	47	ATB476M063	0.5	280	8x10.2
63	100	ATB107M063	0.25	450	10x10.2
63	220	ATB227M063	0.15	720	12.5x13.5
63	330	ATB337M063	0.082	900	16x16.5
63	470	ATB477M063	0.082	900	16x16.5
63	680	ATB687M063K215	0.08	1150	16x21.5
63	680	ATB687M063	0.08	1150	18x16.5
63	1000	ATB108M063	0.06	1250	18x21.5
80	22	ATB226M080	1.3	130	8x10.2
80	33	ATB336M080	1.3	130	8x10.2
80	47	ATB476M080	0.7	200	10x10.2

WVDC	Capacitance (μF)	IC PART NUMBER	Impedance Ω +20°C, 100kHz	Maximum RMS Ripple Current (mA) 100 kHz, +105°C	Dims DxL (mm)
80	100	ATB107M080	0.7	200	10x10.2
80	150	ATB157M080	0.32	450	12.5x13.5
80	220	ATB227M080	0.17	650	16x16.5
80	330	ATB337M080	0.17	650	16x16.5
80	470	ATB477M080	0.15	900	16x21.5
80	680	ATB687M080	0.15	950	18x21.5
100	22	ATB226M100	1.3	130	8x10.2
100	33	ATB336M100	0.7	200	10x10.2
100	47	ATB476M100	0.7	200	10x10.2
100	100	ATB107M100	0.32	450	12.5x13.5
100	150	ATB157M100	0.17	650	16x16.5
100	220	ATB227M100	0.17	650	16x16.5
100	220	ATB227M100L215	0.15	950	18x21.5
100	330	ATB337M100K215	0.15	900	16x21.5
100	330	ATB337M100	0.15	850	18x16.5
100	470	ATB477M100	0.15	950	18x21.5