

CBBAI

for defense



- Conductive polymer solid-state electrolyte is used to achieve **ultra-low ESR**.
- Super interference absorption ability, excellent temperature and frequency characteristics.
- Military products meet the environmental requirements such as vibration and low pressure, and can be supplied according to the "seven specialty" level or the "general army" level.
- It is suitable for filtering, energy storage and bypass in electronic circuits in aerospace, aviation, alpine, high altitude and ocean.

■ Main technical parameters:

Item	characteristic								
Operating temperature range	-55℃~+105℃								
Rated voltage range	2.5V~25V								
Nominal capacitance range	10μF~3500μF								
Allowable deviation of nominal capacitance (25℃, 120Hz)	M (±20%)								
DC leakage current (25℃, 2min) *1	$I \leq 0.2C_R U_R$ or 300 (μA) whichever is greater CR: Nominal capacitance (μF); UR: Rated voltage (V)								
The loss angle tangent $\tan\delta$ (max) (25℃, 120Hz)	For details, please refer to the "List of Product Specifications and Technical Parameters"								
ESR (max) (25℃, 100KHz) *2	For details, please refer to the "List of Product Specifications and Technical Parameters"								
High and low temperature characteristics (impedance ratio, 100KHz)	-55℃: $Z_{-55^\circ\text{C}}/Z_{25^\circ\text{C}} \leq 1.25$ 105℃: $Z_{105^\circ\text{C}}/Z_{25^\circ\text{C}} \leq 1.25$								
Durability (High Temperature Test)	The rated voltage is applied at 105℃ for 2000h, and after recovery for 24h, the electrical performance of the rated voltage (25℃±5℃) is tested at room temperature <table border="1"> <tr> <td>Rate of change in capacitance</td><td>≤± 20% of the initial measurement</td></tr> <tr> <td>Loss tangent $\tan\delta$</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>DC leakage current</td><td>≤ initial prescriptive value</td></tr> <tr> <td>ESR</td><td>≤ 150% of the initial specified value</td></tr> </table>	Rate of change in capacitance	≤± 20% of the initial measurement	Loss tangent $\tan\delta$	≤ 150% of the initial specified value	DC leakage current	≤ initial prescriptive value	ESR	≤ 150% of the initial specified value
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Loss tangent $\tan\delta$	≤ 150% of the initial specified value								
DC leakage current	≤ initial prescriptive value								
ESR	≤ 150% of the initial specified value								
Steady-state damp heat	60℃, 90~95%RH storage for 1000h, recovery for 24h, room temperature [25℃±5℃] test, its electrical properties conform: <table border="1"> <tr> <td>Rate of change in capacitance</td><td>≤± 20% of the initial measurement</td></tr> <tr> <td>Loss tangent $\tan\delta$</td><td>≤ 150% of the initial specified value</td></tr> <tr> <td>DC leakage current</td><td>≤ initial prescriptive value</td></tr> <tr> <td>ESR</td><td>≤ 150% of the initial specified value</td></tr> </table>	Rate of change in capacitance	≤± 20% of the initial measurement	Loss tangent $\tan\delta$	≤ 150% of the initial specified value	DC leakage current	≤ initial prescriptive value	ESR	≤ 150% of the initial specified value
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Executive standard number: Q/MN60000-2008 Seven special standard number: QZJ840634

*1 When testing and charging, a 1KΩ protection resistor is connected in series.

*2 The test position is the bottom of the lead terminal.

■ Outline drawing and size table (mm)

	D×L	F±0.5	d±0.05	A
	6.3×8	2.5	0.6	1
	6.3×11	2.5	0.6	1
	8×8	3.5	0.6	1
	8×12	3.5	0.6	1
	10×12.5	5	0.6	1

■ Ripple current frequency coefficient

Frequency (f)	<1KHz	1KHz≤f<10KHz	10KHz≤f<100KHz	100KHz≤f<300KHz
coefficient	0.05	0.3	0.7	1.0

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List of product specifications and technical parameters

rated voltage (V)	capacity (μF)	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 100KHz)	Ripple current (mA,rms 100KHz)	weight (typical) (g)
2.5 0E	560	6.3×8	0.08	11	4460	0.50
	680	6.3×8	0.08	11	4460	0.50
	820	6.3×8	0.08	11	4460	0.50
	820	8×8	0.08	9	5220	0.68
	1000	8×8	0.08	9	5220	0.68
	1000	8×12	0.08	9	5220	0.85
	1200	8×8	0.08	9	5220	0.68
	1200	8×12	0.08	9	5220	0.85
	1500	8×12	0.08	9	5220	0.85
	2000	10×12.5	0.08	9	5550	1.60
	2500	10×12.5	0.08	9	5550	1.6
	2700	10×12.5	0.08	9	5550	1.6
	3000	10×12.5	0.08	9	5550	1.6
	3300	10×12.5	0.08	9	5550	1.6
	3500	10×12.5	0.08	9	5550	1.6
4 0G	560	6.3×8	0.08	11	4460	0.50
	560	8×8	0.08	9	5220	0.68
	680	8×8	0.08	9	5220	0.68
	680	8×12	0.08	9	5220	0.85
	820	8×8	0.08	9	5220	0.68
	820	8×12	0.08	9	5220	0.85
	1000	8×12	0.08	9	5220	0.85
	1200	8×12	0.08	9	5220	0.85
	1200	10×12.5	0.08	9	5550	1.60
	1500	10×12.5	0.08	9	5550	1.60
	2000	10×12.5	0.08	9	5550	1.60
	2500	10×12.5	0.08	9	5550	1.60
6.3 0J	470	6.3×8	0.08	11	4460	0.50
	470	8×8	0.08	9	5220	0.68
	560	6.3×8	0.08	11	4460	0.50
	560	8×8	0.08	9	5220	0.68
	680	8×8	0.08	9	5220	0.68
	680	8×12	0.08	9	5220	0.85
	820	8×12	0.08	9	5220	0.85
	820	10×12.5	0.08	9	5550	1.60
	1000	8×12	0.08	9	5220	0.85
	1000	10×12.5	0.08	9	5550	1.60
	1200	8×12	0.08	9	5220	0.85
	1200	10×12.5	0.08	9	5550	1.6
	1500	10×12.5	0.08	9	5550	1.6
	2000	10×12.5	0.08	9	5550	1.6
10 1A	820	8×12	0.10	9	5220	0.85
	820	10×12.5	0.10	9	5550	1.6
	1000	10×12.5	0.10	9	5550	1.6
	1200	10×12.5	0.10	9	5550	1.6
	1500	10×12.5	0.10	9	5550	1.6
16 1C	10	6.3×8	0.10	25	2080	0.50
	22	6.3×8	0.10	25	2080	0.50
	33	6.3×8	0.10	25	2080	0.50
	39	6.3×8	0.10	25	2080	0.50
	47	6.3×8	0.10	25	2080	0.50
	68	6.3×8	0.10	20	2520	0.50
	82	6.3×8	0.10	20	2520	0.50
	100	6.3×8	0.10	18	2880	0.50
	100	6.3×11	0.10	15	3500	0.55
	180	8×8	0.12	12	4460	0.68
	180	8×12	0.12	11	4800	0.85
	220	8×8	0.12	12	4460	0.68
	220	8×12	0.12	11	4800	0.85
	270	8×8	0.12	12	4460	0.68
	270	8×12	0.12	11	4800	0.85
	330	8×12	0.12	11	4800	0.85
	330	10×12.5	0.12	11	5080	1.6
	470	10×12.5	0.12	11	5080	1.6
	560	10×12.5	0.12	11	5080	1.6
	680	10×12.5	0.12	11	5080	1.6
	820	10×12.5	0.12	11	5080	1.6
20 1D	10	6.3×8	0.10	25	2080	0.50
	22	6.3×8	0.10	25	2080	0.50
	33	6.3×8	0.10	25	2080	0.50
	39	6.3×8	0.10	25	2080	0.50
	47	6.3×8	0.10	25	2080	0.50
	68	6.3×11	0.10	20	2520	0.55
	68	8×8	0.10	18	3500	0.68
	82	8×8	0.12	18	3500	0.68
	82	8×12	0.12	15	4460	0.85
	100	8×12	0.12	15	4460	0.85
	100	10×12.5	0.12	15	4880	1.6
	180	10×12.5	0.12	15	4880	1.6
	220	10×12.5	0.12	15	4880	1.6
	270	10×12.5	0.12	15	4880	1.6
	330	10×12.5	0.12	15	4880	1.6

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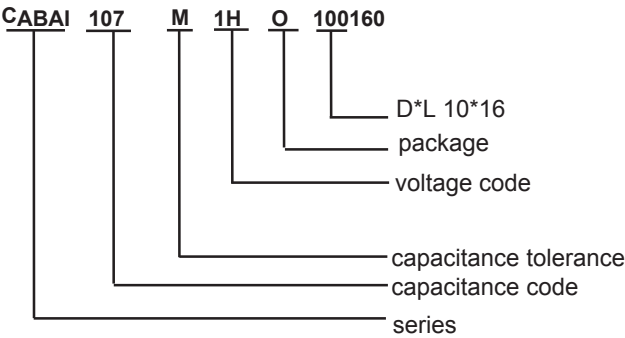
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List of product specifications and technical parameters

rated voltage (V)	capacity (μF)	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 100KHz)	Ripple current (mA,rms 100KHz)	weight (typical) (g)
10 1A	220	6.3×8	0.08	11	4460	0.50
	220	8×8	0.08	9	5220	0.68
	270	6.3×8	0.08	11	4460	0.50
	270	8×8	0.08	9	5220	0.68
	330	6.3×8	0.08	11	4460	0.50
	330	8×8	0.08	9	5220	0.68
	390	8×8	0.08	9	5220	0.68
	390	8×12	0.08	9	5220	0.85
	470	8×8	0.08	9	5220	0.68
	470	8×12	0.08	9	5220	0.85
	560	8×12	0.10	9	5220	0.85
	680	8×12	0.10	9	5220	0.85
	680	10×12.5	0.10	9	5550	1.6

rated voltage (V)	capacity (μF)	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 100KHz)	Ripple current (mA,rms 100KHz)	weight (typical) (g)
25 1E	10	6.3×8	0.10	25	2080	0.50
	22	6.3×8	0.10	25	2080	0.50
	33	6.3×8	0.10	25	2080	0.50
	39	6.3×8	0.10	25	2080	0.50
	47	6.3×11	0.10	20	2880	0.55
	47	8×8	0.10	18	3500	0.68
	68	8×8	0.12	18	3500	0.68
	68	8×12	0.12	15	4460	0.85
	82	8×12	0.12	15	4460	0.85
	100	8×12	0.12	15	4460	0.85
	100	10×12.5	0.12	15	4880	1.6
	180	10×12.5	0.12	15	4880	1.6
	220	10×12.5	0.12	15	4880	1.6

HOW TO MAKE A PART NUMBER



Code	Lead Forming Type
O	Bulk
T	5mm Chip tape
A	(Φ4~Φ6.3)2.5mm tape
F	(Φ4~Φ8)5mm tape
P	Φ≥Φ8mm original(vertical)tape
M	5mm Lead forming
C	C Lead forming
B	B Lead forming
D	(Φ4~Φ8)2.5mm Lead forming