

CABAJ

for defense



- High pressure resistant series.
- Low ESR with high frequency and low impedance.
- 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°C~+105°C								
Rated voltage range	35V~250V								
Nominal capacitance range	4.7μF~150μF								
Allowable deviation of nominal capacitance (25°C, 120Hz)	M ($\pm 20\%$)								
DC leakage current (25°C, 2min) *1	$I \leq 0.02C_R U_R$ (μA) C _R : Nominal capacitance (μF); U _R : Rated voltage (V)								
The loss angle is tangent tgδ(max) (25°C, 120Hz)	For details, please refer to the "List of Product Specifications and Technical Parameters"								
ESR max (25°C, 100KHz) *2	For details, please refer to the "List of Product Specifications and Technical Parameters"								
High and low temperature characteristics (impedance ratio, 100KHz)	55°C: $Z_{-55^\circ C}/Z_{25^\circ C} \leq 1.25$ 105°C: $Z_{105^\circ C}/Z_{25^\circ C} \leq 1.25$								
Durability (High Temperature Test)	The rated voltage is applied at 105°C for 2000h, and after recovery for 24h, the electrical performance of the rated voltage (25°C ± 5°C) is tested at room temperature. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Rate of change in capacitance</td> <td style="padding: 2px;">$\leq \pm 20\%$ of the initial measurement</td> </tr> <tr> <td style="padding: 2px;">Loss tangent tgδ</td> <td style="padding: 2px;">$\leq 150\%$ of the initial specified value</td> </tr> <tr> <td style="padding: 2px;">DC leakage current</td> <td style="padding: 2px;">\leq initial prescriptive value</td> </tr> <tr> <td style="padding: 2px;">ESR</td> <td style="padding: 2px;">$\leq 150\%$ of the initial specified value</td> </tr> </table>	Rate of change in capacitance	$\leq \pm 20\%$ of the initial measurement	Loss tangent tgδ	$\leq 150\%$ of the initial specified value	DC leakage current	\leq initial prescriptive value	ESR	$\leq 150\%$ of the initial specified value
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Loss tangent tgδ	$\leq 150\%$ of the initial specified value								
DC leakage current	\leq initial prescriptive value								
ESR	$\leq 150\%$ of the initial specified value								
Steady-state damp heat	60 °C, 90~95%RH storage for 1000h, recovery for 24h, room temperature (25°C ± 5°C) test, its electrical performance conforms: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Rate of change in capacitance</td> <td style="padding: 2px;">$\leq \pm 20\%$ of the initial measurement</td> </tr> <tr> <td style="padding: 2px;">Loss tangent tgδ</td> <td style="padding: 2px;">$\leq 150\%$ of the initial specified value</td> </tr> <tr> <td style="padding: 2px;">DC leakage current</td> <td style="padding: 2px;">\leq initial prescriptive value</td> </tr> <tr> <td style="padding: 2px;">ESR</td> <td style="padding: 2px;">$\leq 150\%$ of the initial specified value</td> </tr> </table>	Rate of change in capacitance	$\leq \pm 20\%$ of the initial measurement	Loss tangent tgδ	$\leq 150\%$ of the initial specified value	DC leakage current	\leq initial prescriptive value	ESR	$\leq 150\%$ of the initial specified value
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Executive standard number: Q/MN60001-2008 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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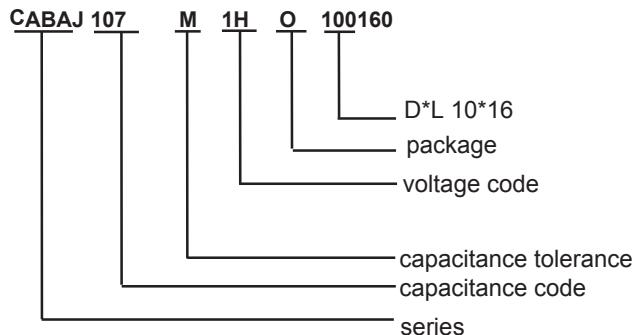
■ List of product specifications and technical parameters

rated voltage (V)	capacity (μF)	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 100KHz)	Ripple current (mA,rms 100KHz)	weight (typical). (g)
35	4.7	6.3×8	0.12	50	1650	0.50
	10	6.3×8	0.12	45	1980	0.50
	15	6.3×8	0.12	45	1980	0.50
	22	6.3×8	0.12	50	1980	0.50
	22	6.3×11	0.12	45	2050	0.55
	22	8×8	0.12	35	2500	0.68
	33	6.3×11	0.12	35	2050	0.55
	33	8×8	0.12	35	2500	0.68
	39	6.3×11	0.12	35	2050	0.55
	39	8×8	0.12	35	2500	0.68
	47	6.3×11	0.12	30	2050	0.55
	47	8×8	0.12	35	2500	0.68
	47	8×12	0.12	30	2920	0.85
	56	8×8	0.12	35	2500	0.68
	56	8×12	0.12	30	2920	0.85
	56	10×12.5	0.12	28	3720	1.6
	68	8×12	0.12	28	2920	0.85
	68	10×12.5	0.12	28	3720	1.60
	82	8×12	0.12	28	2920	0.85
	82	10×12.5	0.12	28	3720	1.6
	100	10×12.5	0.12	24	3720	1.6
	150	10×12.5	0.12	22	3720	1.6
50	4.7	6.3×8	0.12	50	1750	0.50
	10	6.3×8	0.12	45	1980	0.50
	10	6.3×11	0.12	35	2050	0.55
	10	8×8	0.12	35	2500	0.68
	15	6.3×8	0.12	45	1980	0.50
	15	8×8	0.12	35	2500	0.68
	22	6.3×8	0.12	45	1980	0.50
	22	8×8	0.12	35	2500	0.68
	22	8×12	0.12	35	2720	0.85
	33	6.3×11	0.12	45	1980	0.55
	33	8×8	0.12	35	2500	0.68
	33	8×12	0.12	35	2720	0.85
	39	8×12	0.12	35	2720	0.85
	39	10×12.5	0.12	30	2850	1.6
	47	8×12	0.12	32	2720	0.85
	47	10×12.5	0.12	30	2850	1.6
	56	8×12	0.12	32	2720	0.85
	56	10×12.5	0.12	30	2850	1.6
	68	10×12.5	0.12	30	2850	1.6
	82	10×12.5	0.12	30	2850	1.6

rated voltage (V)	capacity (μF)	Dimensions D×L (mm)	tgδ (120Hz)	ESR (mΩ, 100KHz)	Ripple current (mA,rms 100KHz)	weight (typical). (g)
63	4.7	8×8	0.12	50	1900	0.68
	10	6.3×11	0.12	55	1980	0.55
	10	8×8	0.12	45	2500	0.68
	10	8×12	0.12	35	2720	0.85
	15	8×8	0.12	45	2500	0.68
	15	8×12	0.12	35	2720	0.85
	22	8×8	0.12	45	2500	0.68
	22	8×12	0.12	35	2720	0.85
	22	10×12.5	0.12	30	2850	1.6
	33	8×8	0.12	45	2500	0.68
	33	8×12	0.12	35	2720	0.85
	33	10×12.5	0.12	30	2850	1.6
	39	8×12	0.12	35	2720	0.85
	39	10×12.5	0.12	30	2850	1.6
	47	8×12	0.12	35	2720	0.85
	47	10×12.5	0.12	25	2850	1.6
	56	10×12.5	0.12	25	2850	1.6
80	4.7	8×8	0.12	50	1900	0.68
	10	8×8	0.12	45	2500	0.68
	10	8×12	0.12	35	2720	0.85
	15	8×8	0.12	45	2500	0.68
	15	8×12	0.12	35	2720	0.85
	22	8×12	0.12	35	2720	0.85
	22	10×12.5	0.12	30	2850	1.6
	33	8×12	0.12	35	2720	0.85
	33	10×12.5	0.12	30	2850	1.6
	39	10×12.5	0.12	30	2850	1.6
	47	10×12.5	0.12	30	2850	1.6
	100	10	8×12	0.12	120	1250
160	22	10×12.5	0.12	90	1740	1.6
	10	8×12	0.12	180	1000	0.85
	15	10×12.5	0.12	150	1350	1.6
	200	6.8	8×12	0.12	180	1000
250	10	10×12.5	0.12	150	1350	1.6
	4.7	8×12	0.12	250	840	0.85
	6.8	10×12.5	0.12	180	1140	1.6
	10	10×12.5	0.12	150	1350	1.6

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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