

## CDBAA

for defense



- 150 °C series, high heat resistance, lead type.
- Low ESR, high frequency and low impedance.
- Military products meet environmental requirements such as vibration and low air pressure. It can be supplied according to the "seven specialty" level, and can also be supplied according to the "general military" level.
- It is suitable for energy storage, filtering and bypass in electronic circuits in aerospace, aviation, cold, high altitude and ocean.

## Main technical indicators

Item	characteristic								
Operating temperature range	-55°C~+105°C								
Rated operating voltage range	16V~63V								
Nominal capacitance range	27μF~1000μF								
Allowable deviation of nominal capacitance	M ( $\pm 20\%$ ) (25°C, 120Hz)								
DC leakage current <sup>*1</sup>	$I \leq 0.01 C_R U_R$ (μA) (25°C, 2min) $C_R$ : Nominal capacitance (μF); $U_R$ : Rated voltage (V)								
The tangent of the loss angle tgδ (max)	For details, please refer to the "List of Product Specifications and Technical Parameters" (25°C, 120Hz)								
ESR (maximum) <sup>*2</sup>	For details, please refer to the "List of Product Specifications and Technical Parameters" (25°C, 100KHz)								
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="margin-left: 20px;"> <tr> <td>Rate of change in capacitance</td> <td>≤± 10% of the initial measurement</td> </tr> <tr> <td>DC leakage current</td> <td>≤ initial prescriptive value</td> </tr> <tr> <td>The loss angle is tangent</td> <td>≤ 200% of the initial measurement</td> </tr> <tr> <td>ESR</td> <td>≤ 200% of the initial measurement</td> </tr> </table>	Rate of change in capacitance	≤± 10% of the initial measurement	DC leakage current	≤ initial prescriptive value	The loss angle is tangent	≤ 200% of the initial measurement	ESR	≤ 200% of the initial measurement
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DC leakage current	≤ initial prescriptive value								
The loss angle is tangent	≤ 200% of the initial measurement								
ESR	≤ 200% of the initial measurement								
Store at high temperatures	After storage at 105 °C for 500 hours, recovery for 24 hours, and test at room temperature (25 °C ± 5 °C), its electrical properties meet the following requirements: <table border="1" style="margin-left: 20px;"> <tr> <td>Rate of change in capacitance</td> <td>≤± 10% of the initial measurement</td> </tr> <tr> <td>DC leakage current</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>The loss angle is tangent</td> <td>≤ initial measurements</td> </tr> <tr> <td>ESR</td> <td>≤ 200% of the initial measurement</td> </tr> </table>	Rate of change in capacitance	≤± 10% of the initial measurement	DC leakage current	≤ 200% of the initial specified value	The loss angle is tangent	≤ initial measurements	ESR	≤ 200% of the initial measurement
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DC leakage current	≤ 200% of the initial specified value								
The loss angle is tangent	≤ initial measurements								
ESR	≤ 200% of the initial measurement								

Executive standard number: Q/MN60032-2023 Seventh special standard number: QZJ840634

Note: \*1 1KΩ protection resistor in series during testing and charging; \*2 The test location is the root of the capacitor lead terminal.

## Outline drawing and size table (mm)

D × L	F ± 0.5	d ± 0.05	a
8×8	3.5	0.6	1.0
8×10	3.5	0.6	1.0
8×12	3.5	0.6	1.0
10×10	5	0.6	2.0
10×12.5	5	0.6	2.0

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## ■ List of product specifications and technical parameters

rated voltage V	capacity $\mu\text{F}$	Dimensions D×L (mm)	$\text{tg}\delta$ (120Hz)	ESR (mΩ, 25°C) (100kHz)	Ripple current mA,rms (100KHz, 150°C)
16	270	8×8	0.08	30	800
	330	8×10	0.08	17	1900
	390	8×10	0.08	17	1900
	470	8×12	0.08	16	2000
	560	10×10	0.08	16	2000
	680	10×10	0.08	16	2000
	820	10×12.5	0.08	13	2200
	1000	10×12.5	0.08	13	2200
20	180	8×8	0.08	39	600
	220	8×8	0.08	39	600
	270	8×10	0.08	20	1800
	330	8×12	0.08	18	1900
	390	10×10	0.08	18	1900
	470	10×10	0.08	18	1900
	560	10×12.5	0.08	15	2100
25	100	8×8	0.08	41	600
	120	8×8	0.08	41	600
	150	8×10	0.08	20	1800
	180	8×12	0.08	19	1900
	220	10×10	0.08	19	1900

rated voltage V	capacity $\mu\text{F}$	Dimensions D×L (mm)	$\text{tg}\delta$ (120Hz)	ESR (mΩ, 25°C) (100kHz)	Ripple current mA,rms (100KHz, 150°C)
25	270	10×10	0.08	19	1900
	330	10×12.5	0.08	15	2100
	82	8×8	0.08	44	600
	100	8×10	0.08	22	1700
	120	8×12	0.08	21	1800
	150	8×12	0.08	21	1800
	180	10×10	0.08	21	1800
	220	10×12.5	0.08	16	2000
35	47	8×8	0.08	40	600
	56	8×10	0.08	35	1500
	68	8×12	0.08	30	1500
	82	10×10	0.08	25	1500
	100	10×12.5	0.08	22	1600
	120	10×12.5	0.08	22	1600
50	27	8×8	0.08	52	400
	33	8×10	0.08	38	1300
	39	8×10	0.08	38	1300
	47	8×12	0.08	35	1300
	56	10×10	0.08	28	1400
	68	10×12.5	0.08	25	1500
63	27	8×8	0.08	52	400
	33	8×10	0.08	38	1300
	39	8×10	0.08	38	1300
	47	8×12	0.08	35	1300
	56	10×10	0.08	28	1400
	68	10×12.5	0.08	25	1500

## ■ Ripple current frequency coefficient

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

## PART NUMBER EXAMPLE

