

CBJA

for defense

Equal Vishay – DLA19001 DLA20012 T24

Implementation standard: GJB733B-2011Q/GY-39-2014-A0

Product introduction

- **CBJA** series products are tantalum shell packaging, fully sealed, surface mount, external insulation tape, polarized capacitors;
- This series of products have the characteristics of small size, light weight, large storage capacity, excellent and stable electrical performance, high reliability, long life and stable storage;
- This series of products are suitable for surface mounting DC or pulsating circuits of military electronic equipment with reliability requirements such as aerospace, aviation, weapons, electronics, ships and communications;
- It can play the role of battery in energy conversion circuit and power pulse circuit. This product can be charged and discharged infinitely, and play the role of power buffer, energy absorption, energy supply, power failure delay, etc.;



Basic mechanical design feature

- Operating temperature range: $-55^{\circ}\text{C}\sim+125^{\circ}\text{C}$ (when greater than 85°C , apply reduced voltage for use);
- Storage temperature range: $-62^{\circ}\text{C}\sim+130^{\circ}\text{C}$;
- Capacitance allowable deviation: K class: $\pm 10\%$, M class: $\pm 20\%$;
- Rated voltage, derated voltage, surge voltage: see Table 3;
- Nominal capacitance and high and low temperature capacity change: see Table 3;
- Constant temperature and high temperature leakage current: not exceeding the provisions of Table 3;
- Equivalent series resistance (ESR): not exceeding that specified in Table 3;
- Impedance at negative temperature (-55°C): not exceeding that specified in Table 3;
- External dimensions and maximum weight: see Figure 1 and Table 1.

Part number example

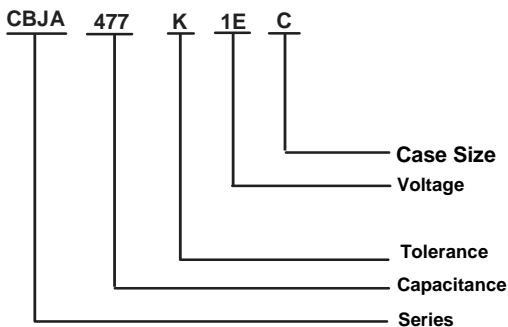


Figure 1 shows the external dimensions of the capacitor

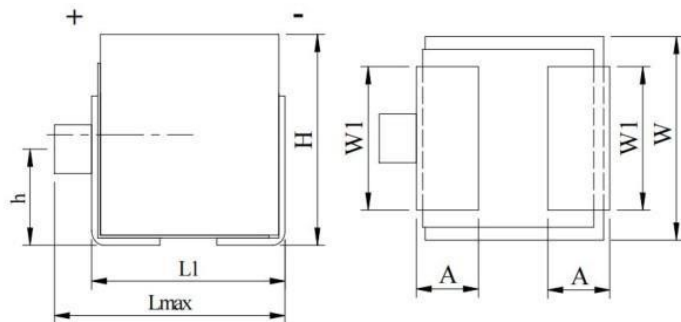


Table 1 Capacitor external dimensions (unit: mm)

Case code	Lmax	L1±0.2	W±0.2	H±0.2	h±0.2	A±0.2	W1±0.2	maximum weight g
B	9	7.8	6.1	6.6	3.0	2.5	4.0	2.5
C	9	7.8	7.1	7.6	3.5	2.5	5.0	3.0
D	11	9.8	7.1	7.6	3.5	3.5	5.0	4.0
E	11	9.8	9.1	7.6	3.5	3.5	7.0	6.5
F	12	10.8	10.1	7.6	4.1	3.8	8.0	9.5
G	12	10.8	10.1	9.1	4.9	3.8	8.0	11.0

Table 2 Identification of capacitors

Capacitor identification			Rated voltage code	
	Trademark description		rated voltage	Voltage code
			10	1A
	first line Line 5	Capacitor polarity mark	16	1C
			25	1E
	Line 2	series	35	1V
			40	1G
	Line 3	capacitance/ tolerance	50	1H
			63	1J
	Line 4	production year	75	1M
			80	1K
Note: The nominal capacitance code is a three-digit number, the first two digits are valid numbers, and the third digit indicates the number of zeros after the valid numbers. The unit is pF.			100	2A
			110	2F
			125	2Q

Table 3 Main electrical parameters of capacitors

specified voltage (V)	derate voltage (V)	surge voltage (V)	nominal capacitance (μF)	case code	Range of capacitance variation max (%)			ESR max 100Hz (Ω)	d-c leakage current max (μA)		impedance Max 100Hz (Ω)
					-55℃	85℃	125℃		25℃	85℃ 125℃	
10 1A	6	11	1400	B	-80	+30	+40	1.0	11	55	15
			2200	C	-80	+30	+40	1.0	17	85	15
			3300	D	-85	+30	+40	1.0	26	130	10
			4700	E	-85	+30	+40	1.0	37	185	10
			6800	F	-85	+30	+40	1.0	54	270	8
16 1C	9.5	17.6	680	B	-80	+35	+45	1.0	8	40	20
			1000	C	-80	+35	+45	1.0	12	60	20
			1700	D	-80	+35	+45	1.5	21	105	15
			2200	E	-80	+35	+45	1.5	28	140	15
			3300	F	-80	+35	+45	1.5	42	210	12
25 1E	15	27.5	560	B	-50	+30	+40	1.0	11	55	20
			470	C	-50	+30	+40	1.0	5	25	20
			750	C	-75	+50	+60	1.5	15	75	25
			1400	D	-75	+50	+60	1.5	28	140	20
			1700	E	-75	+50	+60	1.5	34	170	18
			2200	F	-75	+50	+60	1.5	44	220	16
35 1V	20	38.5	330	B	-75	+60	+70	1.5	9	45	30
			560	C	-75	+60	+70	1.5	15	75	30
			850	D	-75	+60	+70	1.5	24	120	25
			1200	E	-75	+60	+70	1.5	33	165	22
			1700	F	-75	+60	+70	1.5	47	235	20

40 1G	20	44	330	B	-60	+50	+60	1.5	10	50	30
			470	C	-60	+50	+60	1.5	10	30	30
			850	D	-60	+50	+60	1.5	25	120	25
			1100	E	-60	+50	+60	1.5	35	175	22
			1500	F	-60	+50	+60	1.5	48	240	20
50 1H	30	55	68	B/C	-25	+8	+15	1.5	3	15	35
			110	B/C	-60	+60	+80	2.0	4	20	30
			220	B/C	-60	+60	+80	2.0	9	45	30
			330	C	-60	+60	+80	1.5	13	65	25
			560	D	-60	+60	+80	1.5	20	100	15
			680	E	-60	+60	+80	1.5	27	135	13
			1000	F	-60	+60	+80	1.5	40	200	12
63 1J	38	70	120	B	-50	+50	+70	2.0	6	30	35
			180	C	-50	+50	+70	1.5	9	45	30
			330	D	-50	+50	+70	1.5	16	80	20
			420	E	-50	+50	+70	1.5	21	100	18
			560	F	-50	+50	+70	1.5	28	140	16
75 1M	45	82.5	82	B	-40	+40	+50	2.0	5	25	30
			120	C	-40	+40	+50	1.5	7	35	25
			220	D	-40	+40	+50	1.5	13	65	20
			270	E	-40	+40	+50	1.5	16	80	18
			370	F	-40	+40	+50	1.5	22	110	16
80 1K	48	88	75	B	-15	+25	+35	2.0	5	25	30
			110	C	-15	+25	+35	1.5	7	35	25
			180	D	-25	+30	+45	1.5	11	55	20
			220	E	-25	+30	+45	1.5	14	70	18
100 2A	60	110	330	F	-25	+30	+45	1.5	21	100	16
			47	B	-15	+15	+35	2.5	4	20	50
			68	C	-15	+15	+35	2.0	5	25	40
			110	D	-20	+15	+35	1.5	8	40	30
			150	E	-20	+15	+35	1.5	12	60	27
110 2F	66	121	200	F	-20	+15	+35	1.5	16	80	25
			33	B	-12	+15	+30	2.5	3	15	60
			47	C	-12	+15	+30	2.0	4	20	50
			82	D	-20	+15	+30	2.0	6	30	40
			100	E	-20	+15	+30	2.0	9	45	35
125 2Q	75	138	150	F	-20	+15	+30	2.0	13	65	32
			22	B	-15	+10	+20	3.0	2	10	90
			33	C	-15	+10	+20	2.5	3	15	80
			60	D	-15	+10	+20	3.0	5	25	70
			75	E	-15	+10	+20	3.0	7	35	60
			100	F	-15	+10	+20	3.0	10	50	55

1. The product is a polarity capacitor, and the positive and negative poles should be distinguished when measuring and using, and it is forbidden to use a multimeter to measure without polarity;
2. DC leakage current: apply the rated voltage, and the charging time should not exceed 5 minutes (when measuring the DC leakage current of 125°C, apply the derating voltage to measure);
3. Capacitance, equivalent series resistance (ESR), impedance: the measurement frequency is 100Hz, the measurement DC bias voltage is $U_{DC}=2.20V$, and the AC bias voltage is $U_{AC}=1.00V$ (effective value), and the measurement method adopts series equivalent circuit.