

K53-82

TANTALUM SOLID-ELECTROLYTE CAPACITOR

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EVAYA.673547.076 TU

Capacitors are suitable for application in direct current, ripple current circuits and pulse modes. Capacitors are available in all-climate and temperate/cold climate version. Polar. Hermetically-sealed design.



MAIN PARAMETERS

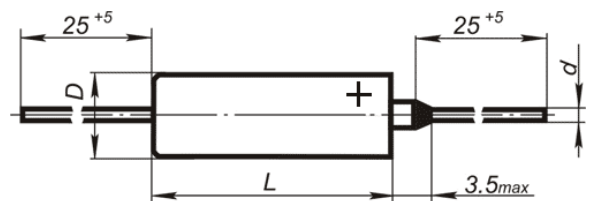
Name	Value
Rated voltage, V	6.3...40
Rated capacitance, μF	0.033...1 000
Capacitance tolerance (25°C, 50 Hz), %	± 10 ; ± 20 ; ± 30
Maximum operating temperature Tenv, °C	+85*; +125
Minimal operating temperature Tenv, °C	-60

* for case code F

CAPACITORS OVERALL DIMENSIONS AND MASS

Case code	D, mm	L, mm	d, mm	Mass, g, max
A	3.2	7.5 \pm 0.3	0.6 \pm 0.1	1
B	4	10 \pm 0.3	0.6 \pm 0.1	1.2
C	4	13 \pm 0.3	0.6 \pm 0.1	1.8
D	7	12 \pm 0.3	0.8 \pm 0.1	4.5
E	7	16 \pm 0.3	0.8 \pm 0.1	6
F	9	21 \pm 0.3	0.8 \pm 0.1	11

DIMENSIONAL DRAWING



CAPACITORS CASE CODE

$C_R, \mu F$	6.3	10	16	20	32	40
	U_R, V					
0.033					A	A
0.047				A	A	A
0.068			A	A	A	A
0.1	A	A	A	A	A	A
0.15	A	A	A	A	A	A
0.22	A	A	A	A	A	A
0.33	A	A	A	A	A	A
0.47	A	A	A	A	A	A
0.68	A	A	A	A	A	A
1	A		A	A	A	A
1.5	A		A	A	A	A
2.2	A		A	A	B	A
3.3	A		A	B	B	B
4.7	A		B	B	C	B
6.8	B		B	C	C	C
10	B		C	C	D	C
15	C		C	D	D	D
22	C		D	D	E	D
33	D		D	E	E	
47	D		E	E	E	
68	E		E	E	E	
100	E		E	E	F	
150	E		E	F		
220	E		F	F		
330	E		F			
470	F					
680	F					
1000	F					

CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

U _R , V	C _R , μF	tg δ, %, 25°C, 50Hz	I _{LEAK} , μA, 25°C, after 5 min.	Z, Ohm, 25°C, 10kHz
6.3	0.1	6	1	•
6.3	0.15	6	1	•
6.3	0.22	6	1	•
6.3	0.33	6	1	•
6.3	0.47	6	1	•
6.3	0.68	6	1	•
6.3	1	6	1.1	•
6.3	1.5	6	1.1	•
6.3	2.2	6	1.1	•
6.3	3.3	6	1.2	•
6.3	4.7	6	1.3	38
6.3	6.8	6	1.4	28
6.3	10	6	1.6	25
6.3	15	6	1.9	14
6.3	22	6	2.4	12.5
6.3	33	8	3.1	7.9
6.3	47	8	4	7.3
6.3	68	8	5.3	5.4
6.3	100	8	7.3	4.8
6.3	150	8	10.5	3.2
6.3	220	8	13.9	2.8
6.3	330	8	20.8	2.4
6.3	470	15	29.6	1.6
6.3	680	15	42.8	1.4
6.3	1000	15	63	1.2
10	0.1	6	1	•
10	0.15	6	1	•
10	0.22	6	1	•
10	0.33	6	1	•
10	0.47	6	1	•
10	0.68	6	1.1	•
16	0.068	6	1	•
16	0.1	6	1	•
16	0.15	6	1	•

U _R , V	C _R , μF	tg δ, %, 25°C, 50Hz	I _{LEAK} , μA, 25°C, after 5 min.	Z, Ohm, 25°C, 10kHz
16	0.22	6	1	•
16	0.33	6	1.1	•
16	0.47	6	1.1	•
16	0.68	6	1.1	•
16	1	6	1.2	•
16	1.5	6	1.2	•
16	2.2	6	1.4	•
16	3.3	6	1.5	38
16	4.7	6	1.8	28
16	6.8	6	2.1	25
16	10	6	2.6	14
16	15	6	3.4	12.5
16	22	8	4.5	7.9
16	33	8	6.3	7.3
16	47	8	8.5	5.4
16	68	8	10.9	4.8
16	100	8	16	3.2
16	150	8	24	2.8
16	220	8	35.2	1.6
16	330	8	52.8	1.4
20	0.047	6	1	•
20	0.068	6	1	•
20	0.1	6	1	•
20	0.15	6	1	•
20	0.22	6	1	•
20	0.33	6	1.1	•
20	0.47	6	1.1	•
20	0.68	6	1.1	•
20	1	6	1.2	•
20	1.5	6	1.3	•
20	2.2	6	1.4	42
20	3.3	6	1.7	31
20	4.7	6	1.9	25
20	6.8	6	2.4	15.5
20	10	6	3	12.5

U _R , V	C _R , μF	tg δ, %, 25°C, 50Hz	I _{LEAK} , μA, 25°C, after 5 min.	Z, Ohm, 25°C, 10kHz
20	15	6	4	8.5
20	22	6	5.4	7.3
20	33	8	7.6	5.4
20	47	8	10.4	4.8
20	68	8	13.6	3.2
20	100	8	20	2.8
20	150	8	30	1.6
20	220	8	44	1.4
32	0.033	6	1	•
32	0.047	6	1	•
32	0.068	6	1	•
32	0.1	6	1	•
32	0.15	6	1	•
32	0.22	6	1.1	•
32	0.33	6	1.1	•
32	0.47	6	1.2	•
32	0.68	6	1.2	•
32	1	6	1.3	•
32	1.5	6	1.5	48
32	2.2	6	1.7	35
32	3.3	6	2.1	28
32	4.7	6	2.5	18
32	6.8	6	3.2	14
32	10	6	4.2	9.5
32	15	6	5.8	8
32	22	8	8	6
32	33	8	10.6	5.1
32	47	8	15	3.2
32	68	8	21.8	2.8
32	100	8	32	1.6
40	0.033	6	1	•
40	0.047	6	1	•
40	0.068	6	1	•
40	0.1	6	1	•
40	0.15	6	1.1	•

U_R , V	C_R , μF	$\text{tg } \delta$, %, 25°C, 50Hz	I_{LEAK} , μA , 25°C, after 5 min.	Z, Ohm, 25°C, 10kHz
40	0.22	6	1.1	•
40	0.33	6	1.1	•
40	0.47	6	1.2	•
40	0.68	6	1.3	•
40	1	6	1.4	60
40	1.5	6	1.6	44
40	2.2	6	1.9	32
40	3.3	6	2.3	21
40	4.7	6	2.9	16
40	6.8	6	3.7	11
40	10	6	5	9
40	15	6	7	6.5
40	22	8	9.8	5.1

• Value is not normalized

CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, t_{λ} , hours	Capacitor failure rate, λ , 1/hour, max
Maximum-permissible mode (U_R , $T_{\text{env}}=85^\circ\text{C}$)	10 000	1×10^{-6}
Maximum-permissible mode (U_R , $T_{\text{env}}=70^\circ\text{C}$)*	10 000	1×10^{-6}
Maximum-permissible mode ($0.67U_R$, $T_{\text{env}}=125^\circ\text{C}$)	10 000	1×10^{-6}
Maximum-permissible mode ($0.67U_R$, $T_{\text{env}}=85^\circ\text{C}$)*	10 000	1×10^{-6}
Light mode ($0.6U_R$, $T_{\text{env}}=60^\circ\text{C}$)	50 000	1×10^{-7}
Storageability Gamma-rated time of capacitor storageability T_{cy} at $\gamma=99.5\%$, years, min	25	

* for case code F

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K53-82 – 6.3V – 4.7 μF $\pm 10\%$ EVAYA.673547.076 TU

CAPACITOR K53-82 – 6.3V – 4.7 μF $\pm 10\%$ B EVAYA.673547.076 TU