K53-78

TANTALUM SOLID-ELECTROLYTE CAPACITOR

elecond-market@elcudm.ru
+7 (34147) 2-99-89

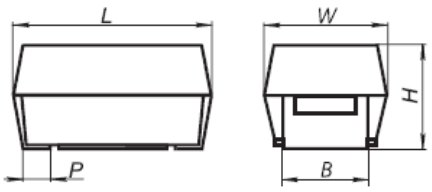
AZHYAR.673546.016 TU

Polar fixed capacitors are suitable for application in direct current, ripple current and pulse current circuits.
Capacitors are available in unified version suitable both for manual and automatic assembly.

MAIN PARAMETERS

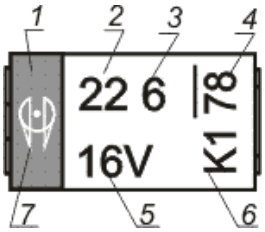
Name	Value
Rated voltage, V	6.3...50
Rated capacitance, μF	1.5...330
Capacitance tolerance (20°C, 50 Hz), %	±10; ±20
Maximum operating temperature Tenv, °C	+175
Minimal operating temperature Tenv, °C	-60

CAPACITORS OVERALL DIMENSIONS AND MASS



Case code	L, mm	W, mm	H, mm	P, mm	B, mm	Mass, g, max
C	6.0±0.3	3.26±0.3	2.5±0.3	1.3±0.3	2.2±0.1	0.3
D	7.3±0.3	4.3±0.3	2.9±0.3	1.3±0.3	2.4±0.1	0.5
E	7.3±0.3	4.3±0.3	4.1±0.3	1.3±0.3	2.4±0.1	0.6

MARKING OF CAPACITORS



1 – Positive terminal (color stripe)
2 – Rated capacitance, pF
3 – Capacitance multiplier code
4 – Product code (only “78” is marked, stripe unavailability is acceptable)
5 – Rated voltage, V
6 – Production date code
7 – Trade mark

MARKING CODES DESIGNATION

Code	Year
K	2018
L	2019
M	2020
N	2021
P	2022
R	2023
S	2024
T	2025
U	2026
V	2027
W	2028
X	2029

Code	Month	Code	Month
1	January	7	July
2	February	8	August
3	March	9	September
4	April	O	October
5	May	N	November
6	June	D	December

Capaci-tance multi-plier code	Capaci-tance multi-plier
4	10^4
5	10^5
6	10^6
7	10^7
8	10^8

CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, t_λ, hours
Maximum-permissible mode (0.67U_R, Tenv=125°C)	30 000
Maximum-permissible mode (U_R, Tenv=85°C)	
Maximum-permissible mode (0.5U_R, Tenv=155°C)	2 000
Maximum-permissible mode (0.3U_R, Tenv=175°C)	
Light mode и условия эксплуатации (0.6U_R, Tenv=60°C)	150 000
Storageability Gamma-rated time of capacitor storageability Tcy at y=97.5%, years, min	25

CAPACITORS CASE CODES

C_R, µF	6.3	10	16	20	25	32	40	50
	U_R, V							
1.5								C
2.2								C
3.3							C	D
4.7						C	D	D
6.8						D	E	E
10					C	D	E	
15				C	D	E		
22			C	D	D	E		
33			D	D	E			
47		C	D	E	E			
68	C	D	E	E				
100	D	D	E					
150	D	E						
220	E	E						
330	E							

CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

U_R, V	C_R, µF	tg δ, %, 23°C, 50 Hz, max	I_{LEAK}, µA, 23°C, after 5 sec., max	ESR, Ohm, 23°C, 100kHz, max
6.3	68	10	4.3	1.4
6.3	100	10	6.3	1.2
6.3	150	10	9.5	1.0
6.3	220	12	13.9	0.8
6.3	330	12	20.8	0.7
10	47	10	4.7	1.4
10	68	10	6.8	1.2
10	100	10	10	1.0
10	150	12	15	0.8
10	220	12	22	0.7
16	22	10	3.5	1.8
16	33	10	5.3	1.6

U_R, V	C_R, µF	tg δ, %, 23°C, 50 Hz, max	I_{LEAK}, µA, 23°C, after 5 sec., max	ESR, Ohm, 23°C, 100kHz, max
16	47	10	7.5	1.2
16	68	10	10.9	1.0
16	100	12	16.0	0.8
20	15	10	3.0	2.2
20	22	10	4.4	1.8
20	33	10	6.6	1.4
20	47	10	9.4	1.2
20	68	12	13.6	0.9
25	10	10	2.5	2.2
25	15	10	3.8	1.8
25	22	12	5.5	1.4
25	33	12	8.3	1.2
25	47	12	11.8	1.0
32	4.7	8	1.5	3.0
32	6.8	10	2.2	2.6
32	10	10	3.2	1.8
32	15	12	4.8	1.6
32	22	12	7.0	1.4
40	3.3	12	1.3	3.5
40	4.7	12	1.9	2.6
40	6.8	12	2.7	2.0
40	10	12	4.0	1.8
50	1.5	12	0.8	5.5
50	2.2	12	1.1	3.5
50	3.3	12	1.7	2.8
50	4.7	12	2.4	2.4
50	6.8	12	3.4	2.2

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K53-78 “C” – 10V – 47µF ±10% AZHYAR.673546.016 TU

If the capacitors for automatic assembly are required it is to be stated in the delivery contract.