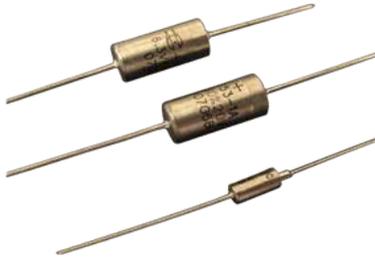


K53-1A

TANTALUM SOLID-ELECTROLYTE CAPACITOR

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+7 (34147) 2-99-89



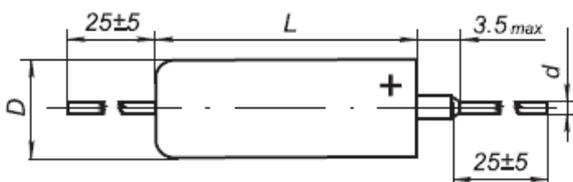
OZH0.464.044 TU
OZH0.464.044 TU; OZH0.464.201 TU

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

MAIN PARAMETERS

Name	Value
Rated voltage, V	6.3...40
Rated capacitance, μF	0.033...100
Capacitance tolerance (20 °C, 50 Hz), %	± 10 ; ± 20 ; ± 30
Maximum operating temperature T_{env} , °C	+125
Minimal operating temperature T_{env} , °C	-60
Impedance at 10kHz, Ohm	2.5...57

DIMENSIONAL DRAWING



DxL, mm	d, mm
3.2x7.5; 4x10; 4 x 13;	0.6
7x12; 7x16	0.8

CAPACITORS OVERALL DIMENSIONS AND MASS

U_R, V	6.3	10	16	20	32	40
$C_R, \mu F$	$D \times L, mm$ mass, g					
0.033					$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$
0.047				$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$
0.068			$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{0.6}$
0.1	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{0.6}$
0.15	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{0.6}$
0.22	$\frac{3.2 \times 7.5}{0.6}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{0.6}$
0.33	$\frac{3.2 \times 7.5}{1.2}$					
0.47	$\frac{3.2 \times 7.5}{1.2}$					
0.68	$\frac{3.2 \times 7.5}{1.2}$					
1	$\frac{3.2 \times 7.5}{1.2}$		$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	
1.5	$\frac{3.2 \times 7.5}{1.2}$		$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	
2.2	$\frac{3.2 \times 7.5}{1.2}$		$\frac{3.2 \times 7.5}{1.2}$	$\frac{3.2 \times 7.5}{1.2}$	$\frac{4 \times 10}{1.2}$	
3.3	$\frac{3.2 \times 7.5}{1.2}$		$\frac{3.2 \times 7.5}{1.2}$	$\frac{4 \times 10}{1.2}$	$\frac{4 \times 10}{1.2}$	
4.7	$\frac{3.2 \times 7.5}{1.2}$		$\frac{4 \times 10}{1.2}$	$\frac{4 \times 10}{1.2}$	$\frac{4 \times 13}{1.8}$	
6.8	$\frac{4 \times 10}{1.2}$		$\frac{4 \times 10}{1.2}$	$\frac{4 \times 13}{1.8}$	$\frac{4 \times 13}{1.8}$	
10	$\frac{4 \times 10}{1.2}$		$\frac{4 \times 13}{1.8}$	$\frac{4 \times 13}{1.8}$	$\frac{7 \times 12}{4.5}$	
15	$\frac{4 \times 13}{1.8}$		$\frac{4 \times 13}{1.8}$	$\frac{7 \times 12}{4.5}$	$\frac{7 \times 12}{4.5}$	
22	$\frac{4 \times 13}{1.8}$		$\frac{7 \times 12}{4.5}$	$\frac{7 \times 12}{4.5}$	$\frac{7 \times 16}{6}$	
33	$\frac{7 \times 12}{4.5}$		$\frac{7 \times 12}{4.5}$	$\frac{7 \times 16}{6}$	$\frac{7 \times 16}{6}$	
47	$\frac{7 \times 12}{4.5}$		$\frac{7 \times 16}{6}$	$\frac{7 \times 16}{6}$		
68	$\frac{7 \times 16}{6}$		$\frac{7 \times 16}{6}$			
100	$\frac{7 \times 16}{6}$					

CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

U_R, V	$C_R, \mu F$	$tg \delta, \%, 20 \text{ }^\circ C, 50 \text{ Hz, max}$	$I_{LEAK}, \mu A, 20^\circ C, \text{ after 60 sec., max}$
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
6.3	1.5	6	1
6.3	2.2	6	1
6.3	3.3	6	1
6.3	4.7	6	1
6.3	6.8	6	1.5
6.3	10	6	1.5
6.3	15	6	2
6.3	22	6	2
6.3	33	8	4.5
6.3	47	8	4.5
6.3	68	8	6
6.3	100	8	6
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
16	0.068	6	1
16	0.1	6	1
16	0.15	6	1
16	0.22	6	1
16	0.33	6	1
16	0.47	6	1
16	0.68	6	1
16	1	6	1
16	1.5	6	1

U_R, V	$C_R, \mu F$	$tg \delta, \%, 20 \text{ }^\circ C, 50 \text{ Hz, max}$	$I_{LEAK}, \mu A, 20^\circ C, \text{ after } 60 \text{ sec., max}$
16	2.2	6	1
16	3.3	6	1
16	4.7	6	1.5
16	6.8	6	1.5
16	10	6	2
16	15	6	2
16	22	8	4.5
16	33	8	4.5
16	47	8	6
16	68	8	6
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
20	0.47	6	1
20	0.68	6	1
20	1	6	1
20	1.5	6	1
20	2.2	6	1
20	3.3	6	1.5
20	4.7	6	1.5
20	6.8	6	2
20	10	6	2
20	15	6	5
20	22	6	5
20	33	6	6
20	47	6	6
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

U_R, V	$C_R, \mu F$	$tg \delta, \%, 20^\circ C, 50 Hz, max$	$I_{LEAK}, \mu A, 20^\circ C, after 60 sec., max$
32	0.33	6	1
32	0.47	6	1
32	0.68	6	1
32	1	6	1
32	1.5	6	1
32	2.2	6	1.5
32	3.3	6	1.5
32	4.7	6	2
32	6.8	6	2
32	10	6	6
32	15	6	6
32	22	6	7
32	33	6	7
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
40	0.22	6	1

CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, t_A , hours
Maximum-permissible mode ($0.7U_R, T_{env}=125^\circ C$)	30 000
Maximum-permissible mode ($U_R, T_{env}=85^\circ C$)	
Light mode ($U_R, T_{env}=70^\circ C$)	50 000
Light mode ($(0.2-0.7)U_R, T_{env}=70^\circ C$)	120 000
Light mode ($(0.2-0.6)U_R, T_{env}=60^\circ C$)	150 000
Storageability Gamma-rated time of capacitor storageability T_{cy} at $y=99.5\%$, years, min	25

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K53-1A – 6.3V – 33 μF $\pm 20\%$ B OZH0.464.044 TU