

# K52-1

## TANTALUM WET-SLUG CAPACITOR

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OZH0.464.209 TU  
OZH0.464.039 TU  
OZH0.464.039 TU; OZH0.464.200 TU

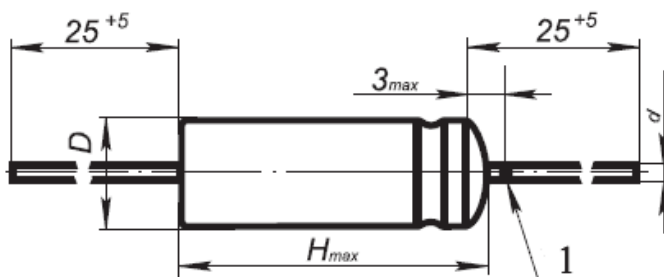


Capacitors are suitable for application in direct current and ripple current circuits. K52-1 type is available in all-climate and temperate/cold climate version. K52-1M type is available in all-climate version.

### MAIN PARAMETERS

Name	Value
Rated voltage, V	3.2...100
Rated capacitance, $\mu\text{F}$	1.5...470
Capacitance tolerance (20 °C, 50 Hz), %	$\pm 10$ ; $\pm 20$ ; $\pm 30$ ; $\pm 50$ ; $+50...-20$
Maximum operating temperature $T_{env}$ , °C	+85
Minimal operating temperature $T_{env}$ , °C	-60

### CAPASITOR PHYSICAL CONFIGURATION



1 – Welding point

DxH, mm	d, mm
3x11; 4x14.5; 4.6x17.5; 6x20	0.6
7.5x24	0.8

## CAPACITORS OVERALL DIMENSIONS AND MASS

$U_R, V$	3.2	6.3	16	25	35	50	70	100
$C_R, \mu F$	$\frac{D \times H, mm}{mass, g}$							
1.5								$\frac{3.0 \times 11}{1}$
2.2							$\frac{3.0 \times 11}{1}$	
3.3						$\frac{3.0 \times 11}{1}$		$\frac{4.0 \times 14.5}{2}$
4.7					$\frac{3.0 \times 11}{1}$		$\frac{4.0 \times 14.5}{2}$	
6.8				$\frac{3.0 \times 11}{1}$		$\frac{4.0 \times 14.5}{2}$		$\frac{4.6 \times 17.5}{2.5}$
10			$\frac{3.0 \times 11}{1}$		$\frac{4.0 \times 14.5}{2}$		$\frac{4.6 \times 17.5}{2.5}$	
15		$\frac{3.0 \times 11}{1}$		$\frac{4.0 \times 14.5}{2}$		$\frac{4.6 \times 17.5}{2.5}$		$\frac{6.0 \times 20}{5}$
22	$\frac{3.0 \times 11}{1}$		$\frac{4.0 \times 14.5}{2}$		$\frac{4.6 \times 17.5}{2.5}$		$\frac{6.0 \times 20}{5}$	
33		$\frac{4.0 \times 14.5}{2}$		$\frac{4.6 \times 17.5}{2.5}$		$\frac{6.0 \times 20}{5}$		$\frac{7.5 \times 24}{7.5}$
47	$\frac{4.0 \times 14.5}{2}$		$\frac{4.6 \times 17.5}{2.5}$		$\frac{6.0 \times 20}{5}$		$\frac{7.5 \times 24}{7.5}$	
68		$\frac{4.6 \times 17.5}{2.5}$		$\frac{6.0 \times 20}{5}$		$\frac{7.5 \times 24}{7.5}$		
100	$\frac{4.6 \times 17.5}{2.5}$		$\frac{6.0 \times 20}{5}$		$\frac{7.5 \times 24}{7.5}$			
150		$\frac{6.0 \times 20}{5}$		$\frac{7.5 \times 24}{7.5}$				
220		$\frac{6.0 \times 20}{5}$	$\frac{7.5 \times 24}{7.5}$					
330		$\frac{7.5 \times 24}{7.5}$						
470		$\frac{7.5 \times 24}{7.5}$						

## CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

$U_R, V$	$C_R, \mu F$	$tg \delta, \%, 20 \text{ }^\circ C, 50 \text{ Hz, max}$	$I_{LEAK}, \mu A, 20 \text{ }^\circ C, \text{ after } 10 \text{ min., max}$	$Z, Ohm, 20 \text{ }^\circ C, 10 \text{ kHz, max}$
3.2	22	15	1.1	8
3.2	47	15	1.3	4
3.2	100	15	1.6	2
6.3	15	10	1.2	10
6.3	33	10	1.4	5

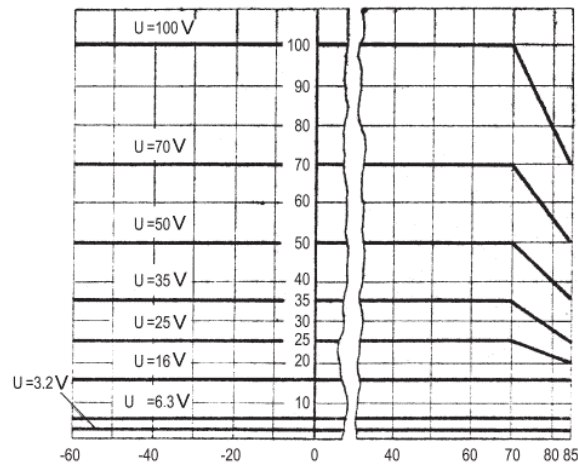
$U_R, V$	$C_R, \mu F$	$\text{tg } \delta, \%, 20 \text{ }^\circ\text{C}, 50 \text{ Hz, max}$	$I_{LEAK}, \mu A, 20 \text{ }^\circ\text{C}, \text{ after } 10 \text{ min.}, \text{ max}$	$Z, \text{ Ohm}, 20 \text{ }^\circ\text{C}, 10\text{kHz, max}$
6.3	68	10	1.9	2.5
6.3	150	15	2.9	2
6.3	220	15	3.8	2
6.3	330	15	5.2	1.5
6.3	470	15	6.9	1
16	10	10	1.3	13
16	22	10	1.7	6
16	47	10	2.5	3
16	100	15	4.2	2
16	220	15	8.1	1.5
25	6.8	10	1.3	15
25	15	10	1.8	8
25	33	10	2.7	4
25	68	15	4.4	2.5
25	150	15	8.5	1.5
35	4.7	10	1.3	20
35	10	10	1.7	10
35	22	10	2.5	5
35	47	10	4.3	3
35	100	15	8.0	1.5
50	3.3	5	1.3	25
50	6.8	5	1.7	12
50	15	5	2.5	6
50	33	8	4.3	3.5
50	68	8	7.8	2
70	2.2	5	1.3	30
70	4.7	5	1.7	15
70	10	5	2.4	8
70	22	8	4.1	4
70	47	8	7.6	2
100	1.5	5	1.3	40
100	3.3	5	1.7	20
100	6.8	5	2.4	10
100	15	8	4.0	5
100	33	8	7.6	3

## CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, $t_n$ , hours
Maximum-permissible mode ( $0.7U_R$ , $T_{env}=85\text{ °C}$ ) for capacitors $U_R=25\dots100V$	5 000
Maximum-permissible mode ( $U_R$ , $T_{env}=85\text{ °C}$ ) for capacitors $U_R=3.2V$ ; $6.3V$ ; $16V$	
Maximum-permissible mode ( $U_R$ , $T_{env}=70\text{ °C}$ )	20 000
Light mode ( $(0.2-0.8)U_R$ , $T_{env}=70\text{ °C}$ )	25 000
Storageability Gamma-rated time of capacitor storageability $T_{cy}$ at $\gamma=99.5\%$ , years, min	20

## VOLTAGE VERSUS TEMPERATURE

$U_T$ , V



$T$ , °C

## EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K52-1 – 6.3V –  $33\mu F \pm 10\%$  OZH0.464.039 TU

CAPACITOR K52-1M – 6.3V –  $33\mu F \pm 10\%$  OZH0.464.039 TU

CAPACITOR K52-1 – 35V –  $22\mu F \pm 10\%$  B OZH0.464.039 TU, OZH0.464.200 TU