

# K50-15

ALUMINUM ELECTROLYTIC CAPACITOR

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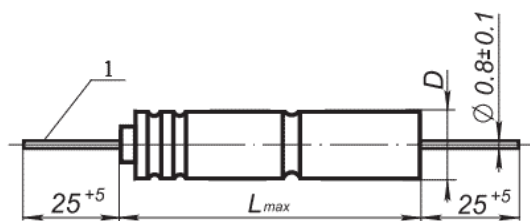
OZH0.464.185 TU  
OZH0.464.103 TU  
OZH0.464.103 TU; OZH0.464.199 TU

Capacitor is suitable for application in direct current, ripple and pulse current circuits and is available in all-climate and temperate/cold climate version.

## MAIN PARAMETERS

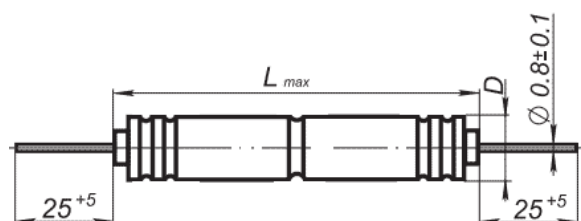
Name	Value
Rated voltage, V	6.3...250
Rated capacitance, $\mu\text{F}$	2.2...680
Capacitance tolerance (25 °C, 50 Hz), % for capacitors $U_R=6.3...50$ V for capacitors $U_R=100...250$ V	+80...-20 +50...-20
Maximum operating temperature $T_{env}$ , °C	+125
Minimal operating temperature $T_{env}$ , °C	-60

### POLAR CAPACITOR



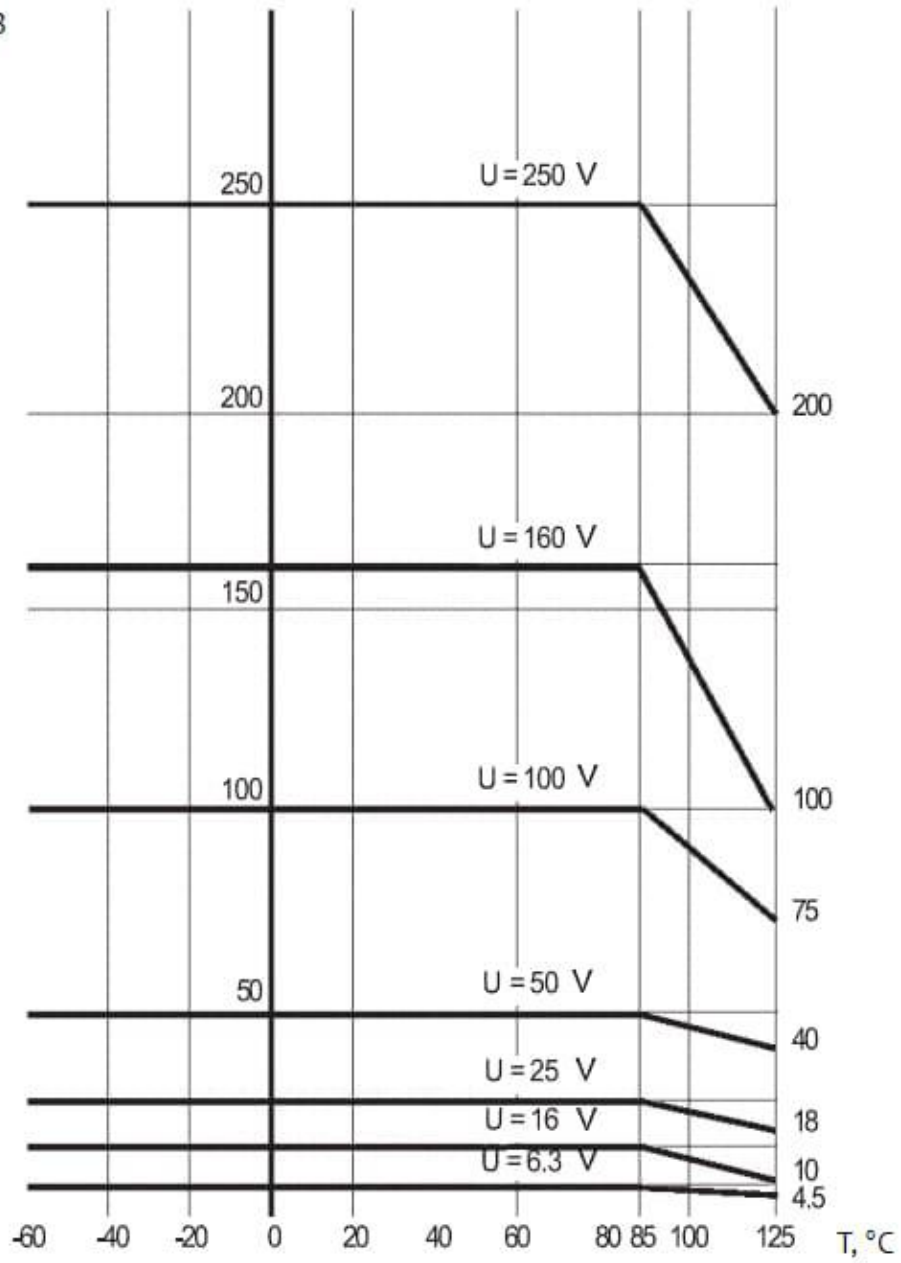
1 – positive termination

### NONPOLAR CAPACITOR



# VOLTAGE VERSUS TEMPERATURE

$U_T, B$



**CAPACITORS OVERALL DIMENSIONS AND MASS.  
POLAR GROUP**

<b>U<sub>R</sub>, V</b>	<b>6.3</b>	<b>16</b>	<b>25</b>	<b>50</b>	<b>100</b>	<b>160</b>	<b>250</b>
C <sub>R</sub> , μF	<u>DxL, mm</u> mass, g						
2.2							<u>9x35</u> 6.5
4.7					<u>9x28</u> 5.0	<u>9x35</u> 6.5	<u>9x50</u> 7.5
10				<u>9x28</u> 5.0		<u>9x60</u> 8.5	<u>12x60</u> 13.0
15					<u>9x50</u> 7.5		
22				<u>9x50</u> 7.5		<u>12x60</u> 13.0	<u>12x70</u> 15.0
33			<u>9x28</u> 5.0		<u>12x60</u> 13.0	<u>12x70</u> 15.0	
47		<u>9x28</u> 5.0	<u>9x35</u> 6.5	<u>9x60</u> 8.5	<u>12x70</u> 15.0		
68	<u>9x28</u> 5.0						
100		<u>9x35</u> 6.5	<u>9x60</u> 8.5	<u>12x70</u> 15.0			
150	<u>9x35</u> 6.5						
220	<u>9x50</u> 7.5	<u>9x60</u> 8.5	<u>12x60</u> 13.0				
330	<u>9x60</u> 8.5		<u>12x70</u> 15.0				
470		<u>12x60</u> 13.0					
680	<u>12x60</u> 13.0	<u>12x60</u> 15.0					

**CAPACITORS OVERALL DIMENSIONS AND MASS.  
NONPOLAR GROUP**

$U_R, V$	25	50	100
$C_R, \mu F$	<u>DxL, mm</u> mass, g		
4.7			$\frac{9 \times 52}{7.5}$
6.8			$\frac{9 \times 63}{8.5}$
10		$\frac{9 \times 52}{7.5}$	
22	$\frac{9 \times 38}{6.5}$	$\frac{9 \times 63}{8.5}$	$\frac{12 \times 73}{15.0}$
33		$\frac{12 \times 63}{13}$	
47	$\frac{9 \times 52}{7.5}$	$\frac{12 \times 73}{15}$	
68	$\frac{9 \times 63}{8.5}$		
100	$\frac{12 \times 63}{13.0}$		

**CAPACITORS RELIABILITY. POLAR GROUP**

Modes and operating conditions	Minimal nonfailure operating time, $t_\lambda$ , hours	Capacitor case size
Maximum-permissible mode ( $0.7U_R$ , $T_{env}=125^\circ C$ )	1 000	$\varnothing 12mm$ , $\varnothing 9mm$ $L > 35mm$
Maximum-permissible mode ( $U_R$ , $T_{env}=85^\circ C$ )	7 500	
Light mode ( $U_R$ , $T_{env}=70^\circ C$ )	10 000	
Maximum-permissible mode ( $0.7U_R$ , $T_{env}=125^\circ C$ )	1 000	$\varnothing 9mm$ $L \leq 35mm$
Maximum-permissible mode ( $U_R$ , $T_{env}=85^\circ C$ )	5 000	
Light mode ( $U_R$ , $T_{env}=70^\circ C$ )	10 000	
Minimal shelf life, years	15	

**CAPACITORS RELIABILITY. NONPOLAR GROUP**

Modes and operating conditions	Minimal nonfailure operating time, $t_\lambda$ , hours
Maximum-permissible mode ( $0.7U_R$ , $T_{env}=125^\circ C$ )	500
Maximum-permissible mode ( $U_R$ , $T_{env}=85^\circ C$ )	3 000
Light mode ( $U_R$ , $T_{env}=70^\circ C$ )	7 500
Minimal shelf life, years	15

**CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED. POLAR GROUP**

<b>U<sub>R</sub>, V</b>	<b>C<sub>R</sub>, μF</b>	<b>tg δ, %, 25 °C, 50 Hz, max</b>	<b>I<sub>LEAK</sub>, μA, 25 °C, after 5 min., max</b>	<b>Z, Ohm, 25 °C, 10kHz, max</b>
6.3	68	25	12.2	5
	150		14.7	2.5
	220		14.9	2
	330		15.4	1.5
	680		21.4	0.8
16	47	20	13.8	7
	100		13	4
	220		17.6	2
	470		37.6	1
	680		54.4	0.8
25	33	15	14.1	5
	47		13.9	3
	100		17.5	1.5
	220		27.5	1
	330		41.3	1
50	10	10	12.5	9
	22		13.5	2.5
	47		16.8	2
	100		25	1
100	4.7		12.4	10
	15		15.5	3.5
	33		16.5	1.5
	47		25	1
160	4.7		13.8	8
	10		13	3
	22		17.6	2
	33		26.4	1.5
250	2.2		12.8	12
	4.7		13.9	8
	10		17.5	2.5
	22		27.5	1.5

## CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED. NONPOLAR GROUP

U <sub>R</sub> , V	C <sub>R</sub> , μF	tg δ, %, 25 °C, 50 Hz, max	I <sub>LEAK</sub> , μA, 25 °C, after 5 min., max	Z, ohm, 25 °C, 10kHz, max
25	22	15	12.75	5
	47		13.87	3
	68		13.5	2
	100		17.5	1
50	10	10	12.5	4
	22		13.5	3
	33		13.25	2
	47		16.75	1.5
100	4.7		12.35	7.5
	6.8		13.4	8
	22		16	2

## CODED SYMBOL FOR CAPACITORS (IDENTIFICATION NUMBER (PARTNUMBER))

CAPACITOR K50-15 - 6.3V - 68MF (+80; -20)% - OZH0.464.185TU  
(K50-15-B-686Z -D9H28-PET-0-185-UHL-P)

1	2	3	4	5	6	7	8	9	10
Capacitor K50-15	6.3V	68μF	(+80; -20)%	D=9mm	H=28mm	PET-0	OZH0.464.185TU	UHL	Polar
<b>K50-15</b>	<b>B</b>	<b>686</b>	<b>Z</b>	<b>D9</b>	<b>H28</b>	<b>PET-0</b>	<b>185</b>	<b>UHL</b>	<b>P</b>

### 1. K50-15 - capacitor K50-15

### 2. Rated voltage code

Code	B	E	G	J	N	Q	W
U <sub>R</sub> , V	6.3	16	25	50	100	160	250

### 3. Nominal capacity code

Code	225	475	106	156	226	336	476	686
C <sub>R</sub> , μF	2.2	4.7	10	15	22	33	47	68

<b>Code</b>	107	157	227	337	477	687
<b>C<sub>R</sub>, μF</b>	100	150	220	330	470	680

#### 4. Capacity approval code

<b>Code</b>	S	Z
<b>Admittance, %</b>	+50; -20	+80; -20

#### 5. Condenser diameter code

<b>Code</b>	D9	D12
<b>Diameter, mm</b>	9	12

#### 6. Condenser Height Code

<b>Code</b>	H28	H35	H50	H60	H70
<b>Height, mm</b>	28	35	50	60	70

#### 7. Isolation code

<b>Code</b>	<b>Decryption</b>
<b>PET-0</b>	Uninsulated, packed in box for hand assembly equipment

#### 8. Code TU

<b>Code</b>	<b>TU designation</b>
<b>185</b>	OZH0.464.185TU

#### 9. Climatic performance

<b>Code</b>	<b>Decryption</b>
<b>B</b>	Capacitors designed for interior installation with resistance requirements to high air humidity 98% at 35°C
<b>UHL</b>	Capacitors are designed for interior installation with resistance requirements to high air humidity 98% at 25°C (climatic version UHL)

#### 10. Type of capacitor

<b>Code</b>	<b>Decryption</b>
<b>P</b>	Polar
<b>Np</b>	Nonpolar

**CAPACITOR K50-15 - 25V - 22MF (+80; -20)% - OZH0.464.185TU  
(K50-15-G-226Z -D9H38-PET-0-185-UHL-NP)**

1	2	3	4	5	6	7	8	9	10
Capacitor K50-15	25V	22μF	(+80; -20)%	D=9mm	H=38mm	PET-0	OZH0.464.185TU	UHL	Nonpolar
<b>K50-15</b>	<b>G</b>	<b>226</b>	<b>Z</b>	<b>D9</b>	<b>H38</b>	<b>PET-0</b>	<b>185</b>	<b>UHL</b>	<b>Hn</b>

**1. K50-15 - capacitor K50-15**

**2. Rated voltage code**

<b>Code</b>	G	J	N
<b>Ur, V</b>	25	50	100

**3. Nominal capacity code**

<b>Code</b>	475	685	106	226	336	476	686	107
<b>CR, μF</b>	4.7	6.8	10	22	33	47	68	100

**4. Capacity approval code**

<b>Code</b>	S	Z
<b>Admittance, %</b>	+50; -20	+80; -20

**5. Condenser diameter code**

<b>Code</b>	D9	D12
<b>Diameter, mm</b>	9	12

**6. Condenser height code**

<b>Code</b>	H38	H52	H63	H73
<b>Height, mm</b>	38	52	63	73

**7. Isolation code**

<b>Code</b>	<b>Decryption</b>
<b>PET-0</b>	Non-insulated, packaged in box for hand assembly equipment



## 8. Code TU

Code	TU designation
185	OZH0.464.185TU

## 9. Climatic performance

Code	Decryption
B	Capacitors designed for interior installation with resistance requirements to high air humidity 98% at 35°C
UHL	Capacitors are designed for interior installation with resistance requirements to high air humidity 98% at 25°C (climatic version UHL)

## 10. View of the capacitor

Code	Decryption
P	Polar
Np	Nonpolar

## EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K50-15 – 100V – 6.8 $\mu$ F (+50 -20)% OZH0.464.103 TU