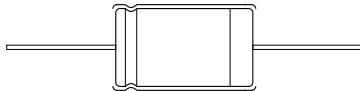
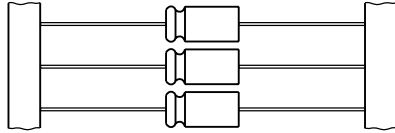


# Aluminum Capacitors Axial Capacitor Style



Component outlines

## FEATURES

- Polarized aluminum electrolytic capacitors
- Standard dimensions
- Long lifetime
- Charge/discharge proof
- High ripple current capability


**RoHS\***  
COMPLIANT

## APPLICATIONS

- General purpose, industrial and automotive electronics, audio/video systems
- Coupling, smoothing, filtering, buffering and timing
- Portable and mobile units
- Vibration and shock resistant

## QUICK REFERENCE DATA

DESCRIPTION	UNIT	LOW VOLTAGE			HIGH VOLTAGE
Nominal case size (∅ D x L)	mm	3.3 x 8 to 3.3 x 11	4.5 x 11	6 x 10 to 10 x 25	6.5 x 18 to 10 x 25
Rated capacitance range C <sub>R</sub>	μF	0.47 to 10	0.47 to 47	4.7 to 1000	1 to 22
Capacitance tolerance	%	- 10 to + 50			
Rated voltage range	V	6.3 to 63	10 to 100	6.3 to 100	160 to 385
Category temperature range	°C	- 40 to + 85			- 40 to + 85
Endurance test at upper category temp.	h	1000			2000
Useful life at 105 °C and I <sub>R</sub> applied	h	-	(750)	(1000)	-
Useful life at 85 °C and I <sub>R</sub> applied	h	1500	3000		5000
Useful life at 40 °C and I <sub>R</sub> applied	h	40 000	85 000		130 000
Failure rate (0.8 U <sub>R</sub> , 40 °C)	10 <sup>-9</sup> /h	≤ 550	≤ 105		≤ 70
Based on sectional specifications		IEC 384-4, CECC 30300			
Based on detailed specifications		similar to CECC 30301-044			
Climatic category IEC 60 068 DIN 40040		40/085/56 GPF			40/085/56 GPF

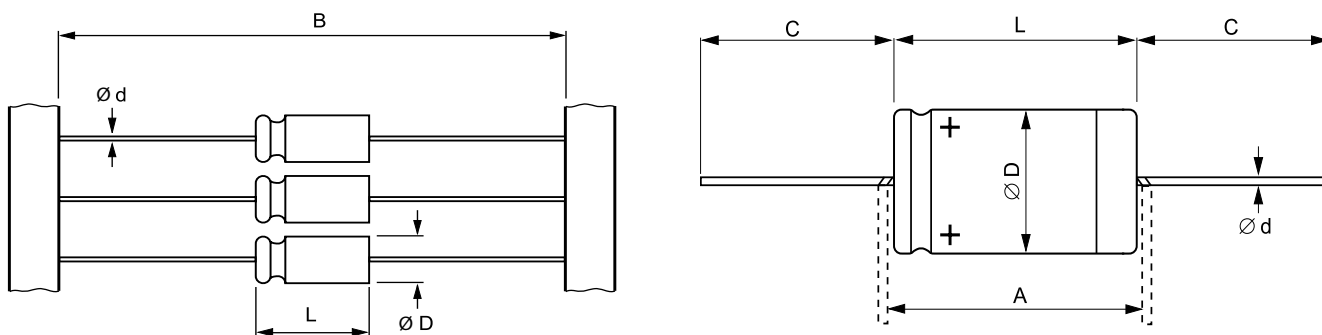
## SELECTION CHART FOR C<sub>R</sub>, U<sub>R</sub> AND RELEVANT NOMINAL CASE SIZES (∅ D x L in mm)

C <sub>R</sub> (μF)	U <sub>R</sub> (V) ≤ 100 V							U <sub>R</sub> (V) > 100 V				
	6.3	10	16	25	40	50	63	100	160	250	350	385
0.47	-	-	-	-	-	-	3.3 x 8 3.3 x 11	4.5 x 10	-	-	-	-
1	-	<b>EL</b>	-	-	3.3 x 11	-	3.3 x 8 4.5 x 10	4.5 x 10	-	-	-	6.5 x 18
2.2	-	-	-	-	3.3 x 8 3.3 x 11	-	3.3 x 11 4.5 x 10	4.5 x 10	-	6.5 x 18	-	8 x 18
4.7	-	-	3.3 x 8 3.3 x 11	-	3.3 x 11	-	4.5 x 10	-	6.5 x 18	8 x 18	10 x 18	10 x 25
10	3.3 x 8 3.3 x 11	-	3.3 x 11	4.5 x 10	4.5 x 10	-	-	-	8 x 18	10 x 25	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
22	-	4.5 x 10	-	4.5 x 10	-	-	<b>EB</b>	-	10 x 25	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
47	-	4.5 x 10	-	-	-	-	-	-	-	-	-	-

\*Pb containing terminations are not RoHS compliant, exemptions may apply

SELECTION CHART FOR $C_R$ , $U_R$ AND RELEVANT NOMINAL CASE SIZES ( $\varnothing D \times L$ in mm)												
$C_R$ ( $\mu F$ )	$U_R (V) \leq 100 V$								$U_R (V) > 100 V$			
	6.3	10	16	25	40	50	63	100	160	250	350	385
68	-	-	-	-	-	-	-	-	-	-	-	-
100	-	6 x 10	-	6.5 x 18	8 x 18	10 x 18	10 x 25	-	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-	-	-
220	EB	6.5 x 18	8 x 18	10 x 18	10 x 18	-	-	-	-	-	-	-
330	-	-	-	-	-	-	-	-	-	-	-	-
470	8 x 18	10 x 18	10 x 18	10 x 25	-	-	-	-	-	-	-	-
680	-	-	-	-	-	-	-	-	-	-	-	-
1000	10 x 25	10 x 25	10 x 25	-	-	-	-	-	-	-	-	-

**DIMENSIONS** in millimeters **AND AVAILABLE FORMS**



AXIAL STYLE: DIMENSIONS in millimeters, MASS, PACKAGING QUANTITIES AND ORDERING CODE											
NOMINAL CASE SIZE $\varnothing D \times L$	$\varnothing d$	C	$\varnothing D$ MAX.	L MAX.	A MIN.	B	MASS APPROX. g	PACKAGING, ENDING OF ORDERING CODE, QUANTITIES			
								TAPED ON REEL		TAPED AMMO	
								CODE	PCS.	CODE	PCS.
3.3 x 8	0.6	-	3.5	9.0	12.5	63.5 ± 1.5	0.3	..A0W	4000	..B0W	1000
3.3 x 11	0.6	-	3.5	12.0	15	63.5 ± 1.5	0.35	..A0W	3000	..B0W	1000
4.5 x 10	0.6	-	5.0	10.5	15	63.5 ± 1.5	0.5	..A0W	3000	..B0W	1000
6 x 10	0.6	-	6.3	10.5	15	63.5 ± 1.5	0.7	..A0W	1000	..B0W	1000
6.5 x 18	0.8	-	6.9	18.5	25	73.0 ± 1.6	1.3	..A0W	1000	..B0W	1000
8 x 18	0.8	-	8.5	18.5	25	73.0 ± 1.6	1.7	..A0W	500	..B0W	500
10 x 18	0.8	-	10.5	18.5	25	73.0 ± 1.6	2.5	..A0W	500	..B0W	500
10 x 25	0.8	-	10.5	25.0	30	73.0 ± 1.6	3.3	..A0W	500	..B0W	500

Axial style capacitors are insulated



Aluminum Capacitors  
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Vishay Roederstein

ELECTRICAL DATA	
SYMBOL	DESCRIPTION
C <sub>R</sub>	rated capacitance at 100 Hz
U <sub>R</sub>	rated voltage
Tan δ	max. dissipation factor at 100 Hz
R <sub>ESR</sub>	equivalent series resistance at 100 Hz, (calculated from Tan δ max and C <sub>R</sub> )
Z	max. impedance at 10 kHz
I <sub>R</sub>	rated alternating current (rms) at 100 Hz and upper category temperature
T <sub>a</sub>	ambient temperature
T <sub>uc</sub>	upper category temperature
RH	relative humidity
P	ambient pressure

**ORDERING EXAMPLE**

The following table gives the ordering number

\* The 3rd place of the catalog number is always a blank sign which is essential for ordering code

The 5<sup>th</sup> place of ordering code refers to termination style:  
EG 00..                      Q = axial leads

The 12<sup>th</sup> place of ordering code refers to packaging for axial lead capacitors:

EB 00GD410C...                      = EB 1000 μF 10 V 10 x 25

EB 00GD410CA0W                      A = taped on reel

EB 00GD410CB0W                      B = taped ammo

Please see tables "Axial Styles" and "Mounting Ring Styles" for available versions.

**Note**

- Unless otherwise specified, all electrical values apply at  
T<sub>a</sub> = 20 °C, P = 86 to 106 kPa, RH = 45 to 75 %.

ELECTRICAL DATA AND ORDERING INFORMATION							
U <sub>R</sub> (V)	C <sub>R</sub> 100 Hz (μF)	NOMINAL CASE SIZE ∅ D × L (mm)	Tan δ 100 Hz MAX.	R <sub>ESR</sub> 100 Hz (Ω)	Z 10 kHz MAX. (Ω)	I <sub>R</sub> 100 Hz T <sub>uc</sub> (A)	CATALOG NUMBER*
6.3	10	3.3 x 8	0.30	47.7	20.0	0.011	EL 00AN210BA0W
	10	3.3 x 11	0.30	47.7	20.0	0.015	EL 00AA210BA0W
	470	8 x 18	0.25	0.847	0.430	0.33	EB 00FL347BA0W
	1000	10 x 25	0.25	0.398	0.200	0.56	EB 00GD410BA0W
10	22	4.5 x 10	0.20	14.5	7.30	0.045	EL 00BA222CA0W
	47	4.5 x 10	0.20	6.78	3.40	0.070	EL 00BA247CA0W
	100	6 x 10	0.20	3.19	1.60	0.11	EB 00CK310CA0W
	220	6.5 x 18	0.20	1.45	0.730	0.21	EB 00DL322CA0W
	470	10 x 18	0.20	0.680	0.340	0.41	EB 00GL347CA0W
	1000	10 x 25	0.20	0.320	0.160	0.56	EB 00GD410C00V
16	4.7	3.3 x 8	0.20	68.0	26.0	0.009	EL 00AN147DA0W
	4.7	3.3 x 11	0.20	67.8	26.0	0.015	EL 00AA147DA0W
	10	3.3 x 11	0.20	32.0	12.0	0.016	EL 00AA210DA0W
	220	8 x 18	0.16	1.16	0.550	0.27	EB 00FL322DA0W
	470	10 x 18	0.16	0.540	0.280	0.41	EB 00GL347DA0W
	1000	10 x 25	0.16	0.260	0.130	0.55	EB 00G0410DA0W
25	10	4.5 x 10	0.14	22.300	9.000	0.05	EL 00BA210EA0W
	22	4.5 x 10	0.14	10.200	4.100	0.06	EL 00BA222EA0W
	47	6 x 10	0.14	4.800	1.900	0.10	EB 00CK247EA0W
	100	6.5 x 18	0.14	2.200	0.900	0.16	EB 00DL310EA0W
	220	10 x 18	0.14	1.000	0.410	0.35	EB 00GL322EA0W
	470	10 x 25	0.14	0.470	0.190	0.50	EB 00G0347EA0W
40	1	3.3 x 11	0.16	239	75.0	0.008	EL 00AA110GA0W
	2.2	3.3 x 8	0.16	120	32.0	0.007	EL 00AA122GA0W
	2.2	3.3 x 11	0.16	109	32.0	0.012	EL 00AA122GA0W
	4.7	3.3 x 11	0.16	54.000	15.000	0.013	EL 00AA147GA0W
	10	4.5 x 10	0.11	17.600	7.000	0.05	EL 00BA210GA0W
	22	6 x 10	0.11	8.000	3.200	0.075	EB 00CK222GA0W
	47	6.5 x 18	0.11	3.800	1.500	0.15	EB 00DL247GA0W
	100	8 x 18	0.11	1.750	0.700	0.22	EB 00FL310GA0W
220	10 x 18	0.12	0.870	0.340	0.36	EB 00GL322GA0W	

**ELECTRICAL DATA AND ORDERING INFORMATION**

$U_R$ (V)	$C_R$ 100 Hz ( $\mu$ F)	NOMINAL CASE SIZE $\varnothing D \times L$ (mm)	$\tan \delta$ 100 Hz MAX.	$R_{ESR}$ 100 Hz ( $\Omega$ )	$Z$ 10 kHz MAX. ( $\Omega$ )	$I_R$ 100 Hz $T_{UC}$ (A)	CATALOG NUMBER*
50	100	10 x 18	0.10	1.60	0.650	0.25	EB 00GL310HA0W
63	0.47	3.3 x 8	0.10	340	120	0.004	EL 00AN047JA0W
	0.47	3.3 x 11	0.10	339	117	0.008	EL 00AA047JA0W
	1	3.3 x 8	0.12	190.000	55.000	0.006	EL 00AN110JA0W
	1	4.5 x 10	0.09	143.000	55.000	0.013	E L00BA110JA0W
	2.2	3.3 x 11	0.14	87.000	25.000	0.011	EL 00AA122JA0W
	2.2	4.5 x 10	0.09	66.000	25.000	0.025	EL 00BA122JA0W
	4.7	4.5 x 10	0.09	31.000	12.000	0.040	EL 00BA147JA0W
	10	6 x 10	0.08	12.800	5.500	0.070	EB 00CK210JA0W
	22	6.5 x 18	0.08	5.800	2.500	0.11	EB 00DL222JA0W
	47	8 x 18	0.08	2.700	1.200	0.19	EB 00FL247JA0W
100	10 x 25	0.08	1.270	0.550	0.30	EB 00GD310JA0W	
100	0.47	4.5 x 10	0.08	271	96.0	0.009	EL 00BA047LA0W
	1	4.5 x 10	0.08	128	45.0	0.020	EL 00BA110LA0W
	2.2	4.5 x 10	0.08	57.9	21.0	0.030	EL 00BA122LA0W
	4.7	6 x 10	0.07	23.7	9.60	0.050	EB 00CK147LA0W
	10	6.5 x 18	0.07	11.2	4.50	0.090	EB 00DL210LA0W
	22	8 x 18	0.07	5.07	2.10	0.12	EB 00FL222LA0W
160	4.7	6.5 x 18	0.15	51.0	26.0	0.050	EB 00DL147MA0W
10	8 x 18	0.15	24.0	12.0	0.070	EB 00FL210MA0W	
22	10 x 25	0.15	11.0	5.50	0.19	EB 00GD222MA0W	
250	2.2	6.5 x 18	0.10	72.0	50.0	0.035	EB 00DL122NA0W
	4.7	8 x 18	0.10	34.0	23.0	0.055	EB 00FL147NA0W
	10	10 x 25	0.10	16.0	11.0	0.090	EB 00GD210NA0W
350	4.7	10 x 18	0.10	34.0	22.0	0.060	EB 00GL147OA0W
385	1	6.5 x 18	0.10	160	100	0.020	EB 00DL110RA0W
	2.2	8 x 18	0.10	72.0	45.0	0.040	EB 00FL122RA0W
	4.7	10 x 25	0.10	34.0	22.0	0.070	EB 00GD147RA0W

**ADDITIONAL ELECTRICAL DATA**

PARAMETER	CONDITIONS	VALUE
<b>Voltage</b>		
Surge voltage	$U_R \leq 100$ V	$U_s = 1.15 \times U_R$
	$U_R \geq 160$ V	$U_s = 1.10 \times U_R$
Reverse voltage	–	$U_{rev} \leq 1$ V
<b>Current</b>		
Leakage current	$U_R \leq 100$ V; $U_R, 300$ s $U_R \geq 160$ V; $U_R, 300$ s	$I_L/\mu A \leq 0.0015 \times C_R/\mu F \times U_R/V + 3$ $I_L/\mu A \leq 0.0150 \times C_R/\mu F \times U_R/V + 10$

**LOW TEMPERATURE BEHAVIOUR**

Table for the calculation of the maximum 10 kHz impedance at low temperatures:

$$Z(10 \text{ kHz}) [\Omega] = \frac{\text{Tabular value}}{C_R [\mu F]}$$



Aluminum Capacitors  
Axial Capacitor Style

Vishay Roederstein

T <sub>a</sub> (°C)	RATED VOLTAGE (V)											
	6.3	10	16	25	40	50	63	100	160	250	350	385
- 25	1300	1000	860	440	330	270	200	160	1000	940	860	1800
- 40	4800	3500	2400	1200	990	800	550	500	5000	4600	4200	6000

In practical operation the lower limit of the series resistance and impedance is given by the ohmic part of the contact points and the foil resistance values. Therefore it will not always be possible to achieve calculated values below 0.05 Ω.

**LIFETIME TABLE** U<sub>R</sub> ≤ 100 V

<b>INTERRELATION BETWEEN ALTERNATING CURRENT, AMBIENT TEMPERATURE AND LIFETIME</b>																				
I/I <sub>R</sub> (FREQUENCY DEPENDENT)							LIFETIME MULTIPLIER L (depending on I/I <sub>R</sub> and T <sub>a</sub> )													
FREQUENCY [Hz]							AMBIENT TEMPERATURE T <sub>a</sub> [°C]													
50	100	250	500	1000	2500	10K	40	45	50	55	60	65	70	75	80	85	90	95	100	105
0	0	0	0	0	0	0	56	35	23	15	9.7	6.4	4.3	3.0	2.0	1.42	1.00	0.71	0.51	0.37
0.18	0.20	0.22	0.23	0.24	0.25	0.26	54	34	22	14	9.4	6.3	4.2	2.9	2.0	1.40	0.98	0.70	0.50	0.36
0.36	0.40	0.44	0.46	0.48	0.50	0.52	49	31	20	13	8.8	5.9	4.0	2.7	1.9	1.33	0.94	0.67	0.48	0.35
0.54	0.60	0.66	0.69	0.72	0.75	0.78	43	28	18	12	8.0	5.4	3.7	2.5	1.8	1.24	0.88	0.63	0.45	0.33
0.72	0.80	0.88	0.92	0.96	1.00	1.04	36	24	16	10	7.0	4.8	3.3	2.3	1.6	1.13	0.80	0.58	0.42	0.31
0.90	1.00	1.10	1.15	1.20	1.25	1.30	29	19	13	8.8	6.0	4.1	2.9	2.0	1.4	1.00	0.72	0.52	0.38	0.28
1.08	1.20	1.32	1.38	1.44	1.50	1.56	23	16	11	7.3	5.0	3.5	2.4	1.7	1.2	0.88	0.63	0.46	0.34	
1.26	1.40	1.54	1.61	1.68	1.75	1.82	18	12	8.5	5.9	4.1	2.9	2.0	1.5	1.0	0.75	0.55	0.40	0.29	
1.44	1.60	1.76	1.84	1.92	2.00	2.08	13	9.4	6.6	4.7	3.3	2.3	1.7	1.2	0.87	0.64	0.47	0.34		
1.62	1.80	1.98	2.07	2.16	2.25	2.34	10	7.1	5.1	3.6	2.6	1.9	1.4	1.0	0.72	0.53	0.39	0.29		
1.80	2.00	2.20	2.30	2.40	2.50	2.60	7.3	5.3	3.8	2.8	2.0	1.5	1.1	0.80	0.59	0.43	0.32			
1.98	2.20	2.42	2.53	2.64	2.75	2.86	5.3	3.9	2.9	2.1	1.6	1.2	0.85	0.63	0.47	0.35				
2.16	2.40	2.64	2.76	2.88	3.00	3.12	3.8	2.8	2.1	1.6	1.2	0.89	0.66	0.50	0.37	0.28				
2.34	2.60	2.86	2.99	3.12	3.25	3.38	2.7	2.1	1.6	1.2	0.89	0.67	0.51	0.39	0.29					
2.52	2.80	3.08	3.22	3.36	3.50	3.64	1.9	1.5	1.1	0.87	0.67	0.51	0.39	0.30						
2.70	3.00	3.30	3.45	3.60	3.75	3.90	1.4	1.1	0.82	0.64	0.49	0.38	0.30							
2.88	3.20	3.52	3.68	3.84	4.00	4.16	0.95	0.75	0.59	0.46	0.36	0.28								
3.06	3.40	3.74	3.91	4.08	4.25	4.42	0.66	0.53	0.42	0.34										
3.24	3.60	3.96	4.14	4.32	4.50	4.68	0.46	0.37												
3.42	3.80	4.18	4.37	4.56	4.75	4.94	0.32													

combination  
not  
permitted

I<sub>R</sub> Rated ripple current (100 Hz, rms) [A] at upper category temperature T<sub>UC</sub> taken from data sheet.

I User ripple current [A].

T<sub>a</sub> Ambient temperature of capacitor [°C].

L Lifetime multiplier.

Regard L as a function of ambient temperature (x-axis) and of current (y-axis); use the current-axis according to the frequency



**LIFETIME TABLE**  $U_R > 100\text{ V}$

<b>INTERRELATION BETWEEN ALTERNATING CURRENT, AMBIENT TEMPERATURE AND LIFETIME</b>																
<b><math>I/I_R</math> (FREQUENCY DEPENDENT)</b>							<b>LIFETIME MULTIPLIER L (depending on <math>I/I_R</math> and <math>T_a</math>)</b>									
<b>FREQUENCY [Hz]</b>							<b>AMBIENT TEMPERATURE <math>T_a</math> [°C]</b>									
<b>50</b>	<b>100</b>	<b>250</b>	<b>500</b>	<b>1000</b>	<b>2500</b>	<b>10K</b>	<b>40</b>	<b>45</b>	<b>50</b>	<b>55</b>	<b>60</b>	<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>
0	0	0	0	0	0	0	66	42	27	17	11	8	5.1	3.5	2.42	1.69
0.17	0.20	0.23	0.25	0.26	0.27	0.28	63	40	26	17	11	7	5.0	3.4	2.35	1.64
0.34	0.40	0.46	0.50	0.52	0.54	0.56	54	35	23	15	10	6.7	4.6	3.1	2.18	1.53
0.51	0.60	0.70	0.74	0.78	0.80	0.84	44	29	19	13	8.7	5.9	4.0	2.8	1.95	1.37
0.68	0.80	0.93	0.99	1.04	1.07	1.12	35	23	16	11	7.2	4.9	3.4	2.4	1.68	1.19
0.85	1.00	1.16	1.24	1.30	1.34	1.40	26	17	12	8.3	5.7	4.0	2.8	2.0	1.40	1.00
1.02	1.20	1.39	1.49	1.56	1.61	1.68	18	13	9.0	6.3	4.4	3.1	2.2	1.6	1.14	
1.19	1.40	1.62	1.74	1.82	1.88	1.96	13	9.2	6.5	4.7	3.3	2.4	1.7	1.2		
1.36	1.60	1.86	1.98	2.08	2.14	2.24	8.8	6.4	4.7	3.4	2.5	1.8	1.3			
1.53	1.80	2.09	2.23	2.34	2.41	2.52	5.9	4.4	3.2	2.4	1.8	1.3				
1.70	2.00	2.32	2.48	2.60	2.68	2.80	3.9	3.0	2.2	1.7	1.2					
1.87	2.20	2.55	2.73	2.86	2.95	3.08	2.6	2.0	1.5	1.1						
2.04	2.40	2.78	2.98	3.12	3.22	3.36	1.7	1.3	1.0							
2.21	2.60	3.02	3.22	3.38	3.48	3.64	1.1									

**combination not permitted**

$I_R$  Rated ripple current (100 Hz, rms) [A] at upper category temperature  $T_{UC}$  taken from data sheet.

$I$  User ripple current [A].

$T_a$  Ambient temperature of capacitor [°C].

$L$  Lifetime multiplier.

Regard  $L$  as a function of ambient temperature (x-axis) and of current (y-axis); use the current-axis according to the frequency

<b>TEST PROCEDURES AND REQUIREMENTS</b>			
<b>TEST</b>		<b>PROCEDURE (quick reference)</b>	<b>REQUIREMENTS</b>
<b>NAME OF TEST</b>	<b>REFERENCE</b>		
Endurance	IEC 60384-4/ EN 1300300, subclause 4.13	$T_A =$ upper cat. temp.; $U_R$ applied; $6.3\text{ V} \leq U_R \leq 100\text{ V}$ : 1000 hours  $T_A = 85\text{ °C}$ ; $U_R$ applied; $160\text{ V} \leq U_R \leq 500\text{ V}$ : 2000 hours	$U_R = 6.3\text{ V}$ : $-40\% \leq DC/C \leq 25\%$ $U_R = 6.3\text{ V}$ : $-30\% \leq DC/C \leq 30\%$ $\tan \delta \leq 1.5 \times$ spec. limit $Z \leq 3 \times$ spec. limit $I_L(300\text{ s}) \leq$ spec. limit
Useful life	CECC 30301, subclause 1.8.1	$T_A = 105\text{ °C}$ ; $U_R$ and $I_R$ applied; $6.3\text{ V} \leq U_R \leq 100\text{ V}$  case 4.5 x 11: 750 h cases 6 x 10 to 10 x 25: 1000 cases 6 x 10 to 10 x 25: 1000 h	$U_R = 6.3\text{ V}$ : $-50\% \leq DC/C \leq 45\%$ $U_R = 6.3\text{ V}$ : $-45\% \leq DC/C \leq 45\%$ $\tan \delta \leq 3 \times$ spec. limit $Z \leq 3 \times$ spec. limit $I_L(300\text{ s}) \leq$ spec. limit no short or open circuit total failure percentage: $\leq 1\%$
		$T_A = 85\text{ °C}$ ; $U_R$ and $I_R$ applied; $160\text{ V} \leq U_R \leq 400\text{ V}$ : 5000 h	
Shelf life (storage at high temperature)	IEC 60348-4/ EN 1300300, subclause 4.17	$T_A =$ upper cat. temp.; no voltage applied; $6.3\text{ V} \leq U_R \leq 100\text{ V}$ cases 3.3 x 8 to 10 x 25: 500 h After test: $U_R$ to be applied for 30 minutes, 24 to 48 hours before measurement	$U_R = 6.3\text{ V}$ : $-40\% \leq DC/C \leq 25\%$ $U_R = 6.3\text{ V}$ : $-30\% \leq DC/C \leq 30\%$ $\tan \delta \leq 1.5 \times$ spec. limit $Z \leq 3 \times$ spec. limit $I_L(300\text{ s}) \leq 2 \times$ spec. limit



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