

Fixed Component Capacitors

Aluminum Electrolytic Capacitor Type GLZ

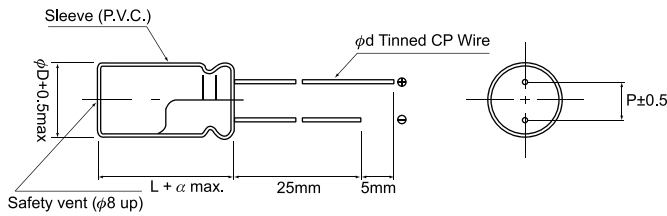
△ Features

- Designed to withstand high ripples
- Has low impedance characteristics
- Guaranteed long life (2,000 ~ 3,000 hours at 105° C)



△ Applications

- Suitable for use in high reliability switching power supply circuits.



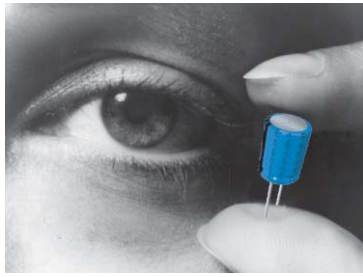
		DØ x L (mm)								
DØ		5	6.3	8	10	13	16	18	22	25
P		2	2.5	3.5	5	5	7.5	7.5	10	12.5
φd			0.5			0.6		0.8		1
α	~100V		1			1.5		1.5		2
	160V~		1.5			2		2		2

△ Specifications

Item	Performance Characteristics											
Operating Temperature Range	-55 + 105°C (6.3 ~ 100V)			-40 + 105°C (160 ~ 400V)				-25 + 105°C (450V)				
Rated Voltage	6.3V ~ 100V											
Capacitance Range	0.47 ~ 15,000 μF											
Capacitance Tolerance	±20% (120Hz, 20°C)											
Leakage Current	6.3V ~ 100V					160V ~ 450V						
	0.03CV or 4 μA, whichever is greater after 2 minutes application of rated voltage.					CV 1000: I = 0.1CV + 40 μA max. (2 minutes) CV 1000: I = 0.4CV + 100 μA max. (2 minutes)						
Dissipation Factor (120Hz, 20°C)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160~250	350	400~450
	Tan d (max.)	0.24	0.20	0.16	0.14	0.12	0.10	0.09	0.09	0.15	0.20	0.25
Temperature Characteristics (120Hz)	For capacitance of more than 1,000μF, add 0.02 for every increase of 1,000μF.											
	Impedance Ratio / Stability at Low Temperature											
	Rated voltage (V)	6.3~10	16~25	35~50	63~100	160~200	250	350	400	450		
	Z (-55°C) / Z (20°C)	5	4	3	-	-	-	-	-	-	-	-
Z (-40°C) / Z (20°C)	-	-	-	3	4	6	8	10	-	-	-	
Z (-25°C) / Z (20°C)	-	-	-	2	3	3	4	6	15	-	-	
Load Life	After a certain hour application of rated voltage and ripple current at 105°C, capacitor shall meet the characteristics requirements mentioned below.											
	5 ~ 6 φ : 2,000 hours 8 ~ 10 φ : 2,000 hours ≥ 13 φ : 3,000 hours											
	Capacitance change	Within ±20% of initial value										
	Tan d	200% or less of initial specified value										
Shelf Life	Initial specified value or less											
	After leaving capacitors under no load at 105°C for 1,000 hours and applying voltage according to JIS C5102 4-3, capacitor shall meet the specified value as load life characteristics listed above.											

△ Frequency coefficient of allowable ripple current

WV	Cap(μF) \ Frequency	50Hz	120Hz	300Hz	1KHz	10KHz~
6.3 ~ 100	~ 47	-	0.17	0.4	0.65	1
	100 ~ 220	0.3	0.5	0.65	0.8	1
	330 ~ 680	0.57	0.71	0.82	0.9	1
160 ~ 450	1000 ~ 15000	0.75	0.87	0.96	0.98	1
	0.47 ~ 220	0.8	1	1.25	1.4	1.6
	330 ~ 470	0.9	1	1.1	1.13	1.15



Δ Dimensions

Dφ x L (mm)

Cap (μF)	WV	6.3V			10V			16V			25V		
		Size	Imp.	Ripple	Size	Imp.	Ripple	Size	Imp.	Ripple	Size	Imp.	Ripple
4.7											5 x 11	1.50	160
10											5 x 11	1.50	160
22		5 x 11	1.50	160	5 x 11	1.50	160	5 x 11	1.50	160	5 x 11	1.50	160
33		5 x 11	1.50	160	5 x 11	1.50	160	5 x 11	1.50	160	5 x 11	1.50	160
47		5 x 11	1.50	160	5 x 11	1.50	160	5 x 11	1.50	160	5 x 11	1.50	160
100		5 x 11	1.50	160	5 x 11	1.50	160	6 x 11	0.50	250	6 x 11	0.50	250
220		6 x 11	0.50	250	6 x 11	0.50	250	8 x 11	0.28	410	8 x 11	0.28	410
330		6 x 11	0.50	250	8 x 11	0.28	410	8 x 11	0.28	410	10 x 12	0.19	600
470		8 x 11	0.28	410	8 x 11	0.28	410	10 x 12	0.19	600	10 x 16	0.14	800
680		10 x 12	0.19	600	10 x 12	0.19	600	10 x 16	0.14	800	10 x 20	0.11	1000
1000		10 x 12	0.19	600	10 x 16	0.14	800	10 x 20	0.11	1000	13 x 20	0.075	1250
1500		10 x 20	0.11	1000	10 x 20	0.11	1000	13 x 20	0.075	1250	16 x 25	0.038	1900
2200		13 x 20	0.075	1250	13 x 20	0.075	1250	13 x 25	0.057	1550	16 x 25	0.038	1900
3300		13 x 20	0.075	1250	13 x 25	0.057	1550	16 x 25	0.038	1900	16 x 31	0.033	2350
4700		16 x 25	0.038	1900	16 x 25	0.038	1900	16 x 31	0.033	2350	18 x 35	0.030	2700
6800		16 x 25	0.038	1900	16 x 31	0.033	2350	18 x 35	0.030	2700	18 x 40	0.027	3300
10000		16 x 31	0.033	2350	18 x 35	0.030	2700	18 x 40	0.027	3300			
15000		18 x 35	0.030	2700	18 x 40	0.027	3300						

Cap (μF)	WV	35V			50V			63V			100V		
		Size	Imp.	Ripple	Size	Imp.	Ripple	Size	Imp.	Ripple	Size	Imp.	Ripple
0.47					5 x 11	7.50	25				5 x 11	43.0	20
1					5 x 11	5.30	40				5 x 11	20.0	30
2.2					5 x 11	4.50	55				5 x 11	9.80	44
3.3					5 x 11	3.90	65				5 x 11	6.60	58
4.7		5 x 11	1.50	160	5 x 11	3.50	90	5 x 11	4.70	68	5 x 11	4.60	74
10		5 x 11	1.50	160	5 x 11	2.10	120	5 x 11	2.10	110	6 x 11	1.80	130
22		5 x 11	1.50	160	5 x 11	1.80	150	6 x 11	0.98	180	8 x 11	0.68	230
33		5 x 11	1.50	160	6 x 11	0.65	250	6 x 11	0.71	220	10 x 12	0.46	320
47		6 x 11	0.50	250	6 x 11	0.65	250	8 x 11	0.65	310	10 x 16	0.37	420
100		8 x 11	0.28	410	8 x 11	0.36	340	10 x 12	0.31	390	13 x 20	0.18	580
150		8 x 11	0.28	410	10 x 12	0.26	490	10 x 16	0.25	440	13 x 25	0.13	710
220		10 x 12	0.19	600	10 x 16	0.18	650	10 x 20	0.20	700	16 x 25	0.10	890
330		10 x 16	0.14	800	10 x 20	0.15	810	13 x 20	0.12	980	16 x 25	0.090	1080
470		10 x 20	0.11	1000	13 x 20	0.13	1100	13 x 25	0.081	1200	16 x 31	0.076	1310
680		13 x 20	0.075	1250	13 x 25	0.10	1200	16 x 25	0.058	1300	16 x 35	0.064	1410
1000		13 x 25	0.057	1550	16 x 25	0.058	1600	16 x 31	0.049	1380	18 x 40	0.047	4520
1500		16 x 25	0.038	1900	16 x 31	0.040	2000	18 x 35	0.038	1750			
2200		16 x 31	0.033	2350	18 x 35	0.035	2300	18 x 40	0.032	2120			
3300		18 x 35	0.030	2700									
4700		18 x 40	0.027	3300									

• Impedance: (Ω) Max. 20°C 100KHz • Allowable ripple current: (mA) at 105°C 100KHz

Cap (μF)	WV	160V		200V		250V		350V		400V		450V	
		Size	Imp.	Size	Imp.	Size	Imp.	Size	Imp.	Size	Imp.	Size	Imp.
0.47		6 x 11	12	6 x 11	12	6 x 11	12	8 x 11	11				
1		6 x 11	17	6 x 11	17	6 x 11	17	10 x 12	17	10 x 12	16	10 x 12	18
2.2		6 x 11	25	6 x 11	25	8 x 11	29	10 x 16	31	10 x 16	27	10 x 20	29
3.3		8 x 11	36	8 x 11	36	10 x 12	42	10 x 16	38	10 x 20	36	13 x 20	41
4.7		8 x 11	43	10 x 12	50	10 x 12	50	10 x 20	49	10 x 20	43	13 x 20	49
10		10 x 12	70	10 x 16	80	10 x 20	88	13 x 20	82	13 x 25	72	16 x 25	75
22		10 x 20	130	10 x 20	140	13 x 25	155	16 x 25	130	16 x 25	110	16 x 31	115
33		13 x 20	180	13 x 25	190	13 x 25	190	16 x 31	160	16 x 31	140	18 x 35	145
47		13 x 25	220	13 x 25	220	16 x 25	230	18 x 35	200	18 x 35	170	20 x 40	175
100		16 x 25	330	16 x 31	335	18 x 35	340	20 x 40	290	22 x 50	350	25 x 50	350
220		18 x 35	500	18 x 40	515	20 x 40	525	25 x 50	550				
330		20 x 40	900	22 x 40	1100	22 x 50	1150						
470		22 x 50	1200	22x 50	1310	25 x 50	1350					Case Size	Ripple

• Allowable ripple current (mA) at 105°C 120Hz

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