

ALUMINUM ELECTROLYTIC CAPACITORS

GHA 臥式 105°C 標準品 Axial Leads, 105°C Standard Series

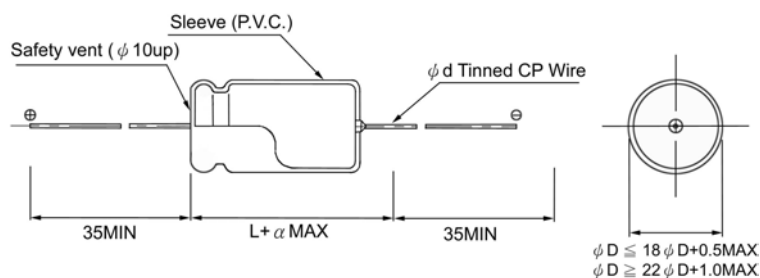
- 一般尺寸標準型品, 適用於各式小型化電子產品
- 產品壽命保證 2,000 小時/105°C
- For general use and suitable for consumer electronics products.
- Life guaranteed 2,000hrs./105°C.



• Specifications

Item	Performance Characteristics										
Operating Temperature range 使用溫度範圍	-40 + 105°C					-25 + 105°C					
Rated Voltage 額定電壓	6.3V ~ 100V					160V ~ 450V					
Capacitance Range 容量範圍	0.47 ~ 22,000 μF										
Capacitance Tolerance 靜電容量容許差	±20% (120Hz, 20°C)										
Leakage Current 洩漏電流	I ≤ 0.02CV or 4 μA, whichever is greater after 2 minutes application of rated voltage.					I ≤ 0.03CV + 10 μA, whichever is greater after 2 minutes application of rated voltage.					
Dissipation Factor 散逸係數 (120Hz, 20°C)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160~250	350~450
	Tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.10	0.20	0.25
For capacitance of more than 1,000μF, add 0.02 for every increase of 1,000μF.											
Temperature Characteristics 溫度特性 (120Hz)	Impedance Ratio / Stability at Low Temperature										
	Rated voltage (V)	6.3	10	16	25	35	50	63~100	160~250	350~400	450
	Z (-25°C) / Z (20°C)	5	4	3	2	2	2	2	4	4	6
Z (-40°C) / Z (20°C)											
12 10 8 6 5 4 4 15 10 -											
Load Life 高溫度負荷特性	After 2,000 hours application of WV at 105°C, capacitor shall meet the characteristics requirements mentioned below.										
	Capacitance change	Within ±20% of initial value									
	Tan δ	200% or less of initial specified value									
	Leakage current	Initial specified value or less									
Shelf Life 擺置壽命	After leaving capacitors under no load at 105°C for 1,000 hours and applying voltage according to JIS C5102 and C5141, they shall meet the specified value as load life characteristics listed above.										

• Dimension



φD	5	6	8	10	13	16	18	22	25
φd	0.6					0.8		0.8 / 1.0	
α	6.3 ~ 100V		1.5			2.0		2.0	
	160V ~ 450V		1.5			2.0		2.0	

• Frequency coefficient of allowable ripple current

WV	Cap(μF) \ Frequency	50 Hz	120 Hz	300 Hz	1 KHz	10 KHz~
6.3~100	~ 47	0.75	1	1.35	1.57	2.00
	100 ~ 470	0.80	1	1.23	1.34	1.50
	1000 ~ 22000	0.85	1	1.10	1.13	1.15
160~450	1 ~ 220	0.80	1	1.25	1.40	1.60

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• Size & ripple current

Unit: DxL(mm)

WV(SV) Cap(μF)	6.3 (8)		10 (13)		16 (20)		25 (32)		35 (44)		50 (63)		63 (75)		100 (125)	
0.47											5 x 13	5			5 x 13	9
1											5 x 13	10			5 x 13	14
2.2											5 x 13	18			5 x 13	19
3.3											5 x 13	22			6.3 x 13	27
4.7											5 x 13	26			6.3 x 13	32
10							5 x 13	30	5 x 13	33	5 x 13	36	6.3 x 13	44	6.3 x 16	52
22					5 x 13	41	5 x 13	48	6.3 x 13	57	6.3 x 16	69	6.3 x 16	73	8 x 16	85
33					5 x 13	54	6.3 x 13	64	6.3 x 16	76	6.3 x 16	82	6.3 x 16	89	8 x 20	115
47			5 x 13	57	6.3 x 13	71	6.3 x 16	85	6.3 x 16	88	6.3 x 16	100	8 x 16	115	8 x 20	135
100	6.3 x 13	89	6.3 x 16	105	6.3 x 16	115	6.3 x 16	120	8 x 16	140	8 x 16	155	8 x 20	185	10 x 26	240
220	6.3 x 16	145	6.3 x 16	155	8 x 16	185	8 x 16	200	8 x 20	240	10 x 21	290	10 x 26	340	13 x 31	430
330	8 x 16	200	8 x 16	220	8 x 16	230	8 x 20	270	10 x 21	330	10 x 26	400	13 x 26	460	16 x 31	570
470	8 x 16	240	8 x 16	250	8 x 20	310	10 x 21	370	10 x 26	430	13 x 26	530	13 x 31	590	16 x 41	770
1000	10 x 21	430	10 x 21	460	10 x 26	550	13 x 26	640	13 x 31	750	16 x 31	890	16 x 31	940	22 x 41	1210
2200	13 x 26	720	13 x 26	780	13 x 31	910	16 x 31	1040	16 x 31	1120	18 x 41	1360	22 x 41	1520	25 x 60	2170
3300	13 x 26	860	13 x 31	980	16 x 31	1140	16 x 31	1200	16 x 41	1430	22 x 41	1660	22 x 51	1740		
4700	13 x 31	1060	16 x 31	1220	16 x 31	1300	18 x 41	1540	22 x 41	1740	22 x 51	1860	25 x 51	2400		
6800	16 x 31	1300	16 x 31	1370	16 x 41	1620	22 x 41	1810	22 x 51	1910						
10000	16 x 41	1620	18 x 41	1690	22 x 41	1900	22 x 51	1980	25 x 51	2510						
15000	18 x 41	1740	22 x 41	1950	22 x 51	2050										
22000	22 x 41	2000	22 x 51	2080	25 x 51	2650										Case Size ripple

WV(SV) Cap(μF)	160 (200)		200 (250)		250 (300)		350 (400)		400 (450)		450 (500)	
1			6.3 x 13	10	6.3 x 16	11	6.3 x 16	10	8 x 16	12	8 x 16	12
2.2			6.3 x 16	17	8 x 16	20	8 x 16	17	8 x 20	19	10 x 21	22
3.3			8 x 16	24	8 x 16	24	8 x 20	24	10 x 21	27	10 x 21	27
4.7	8 x 16	28	8 x 16	28	8 x 20	32	10 x 21	33	10 x 21	33	10 x 26	36
10	8 x 20	43	10 x 21	50	10 x 21	50	13 x 26	60	13 x 26	60	13 x 31	67
22	10 x 26	85	13 x 26	100	13 x 26	100	16 x 31	110	16 x 31	110	16 x 41	130
33	13 x 26	120	13 x 26	120	13 x 31	135	16 x 31	135	16 x 41	160	18 x 41	165
47	13 x 31	155	13 x 31	155	16 x 31	175	16 x 41	185	18 x 41	200	22 x 41	220
100	16 x 31	270	16 x 41	300	16 x 41	300	22 x 41	310				
220	22 x 41	510	22 x 41	510							Case Size	ripple

Ripple (mA) at 105°C120 Hz