

GSA Axial Leads, 85°C Standard Series

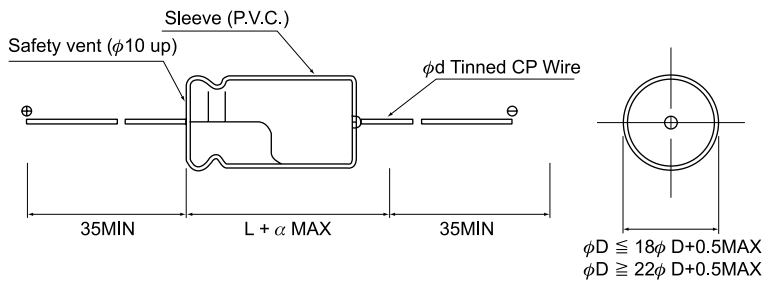
- Standardized case sizes for general purpose application.
- Life guaranteed 2,000 hours/85°C.



• Specifications

Item	Performance Characteristics											
Operating Temperature range	-40 + 85°C						-25 + 85°C					
Rated Voltage	6.3V ~ 100V						160V ~ 450V					
Capacitance Range	0.47 ~ 22,000 μF											
Capacitance Tolerance	±20% (120Hz, 20°C)											
Leakage Current	I ≤ 0.02CV or 4 μA, whichever is greater after 2 minutes application of rated voltage.						I ≤ 0.03CV + 10 μA max. after 2 minutes application of rated voltage.					
Dissipation Factor (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 1,000 μF, add 0.02 for every increase of 1,000 μF.											
Temperature Characteristics (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	5	4	3	3	15	10	-	
Load Life	After 2,000 hours application of WV at 85°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	At 85°C, no voltage applied for 1,000 hours, the capacitor shall meet the limits as in load life.											

• Dimension (mm)



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		

• Standard Products Table

Dφ x L (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
1						5 x 13	10	5 x 13
2.2						5 x 13	23	5 x 13
3.3						5 x 13	30	5 x 13
4.7						5 x 13	36	5 x 13
10				5 x 13	37	5 x 13	41	5 x 13
22			5 x 13	50	5 x 13	58	5 x 13	70
33			5 x 13	60	5 x 13	80	6.3 x 13	95
47		5 x 13	70	5 x 13	90	6.3 x 13	105	6.3 x 13
100	5 x 13	110	6.3 x 13	130	6.3 x 13	145	6.3 x 16	170
220	6.3 x 13	180	6.3 x 16	220	8 x 16	260	8 x 16	280
330	6.3 x 16	250	8 x 16	300	8 x 16	320	8 x 16	350
470	8 x 16	330	8 x 16	350	8 x 16	390	8 x 20	460
1000	8 x 20	530	8 x 20	570	10 x 21	700	10 x 26	830
2200	10 x 21	850	13 x 26	1100	13 x 26	1190	13 x 31	1330
3300	13 x 26	1210	13 x 26	1290	13 x 31	1460	16 x 31	1700
4700	13 x 26	1400	13 x 31	1550	16 x 31	1840	16 x 41	2190
6800	13 x 31	1650	16 x 31	1930	16 x 41	2310	18 x 41	2480
10000	16 x 31	1990	16 x 41	2350	18 x 41	2520	22 x 51	3240
15000	16 x 41	2480	18 x 41	2630	22 x 51	3310		
22000	18 x 41	2730	22 x 51	3390	25 x 51	3500		

WV(SV) Cap (μF)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
1			6.3 x 13	16	6.3 x 16	20
2.2		6.3 x 13	24	6.3 x 16	30	8 x 16
3.3	6.3 x 16	37	6.3 x 16	37	8 x 16	40
4.7	8 x 16	50	8 x 16	50	8 x 16	50
10	8 x 20	80	8 x 20	80	10 x 21	90
22	10 x 21	130	10 x 26	145	13 x 26	160
33	10 x 26	180	13 x 26	195	13 x 26	195
47	13 x 26	230	13 x 31	230	13 x 31	240
100	16 x 31	400	16 x 31	400	16 x 41	450
220	16 x 41	670	18 x 41	690	22 x 41	764

Ripple current (mA) at 85°C 120 Hz

• 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
	1,000 ~ 22,000	0.85	1	1.10	1.13	1.15
160~450	1 ~ 220	0.80	1	1.25	1.40	1.60