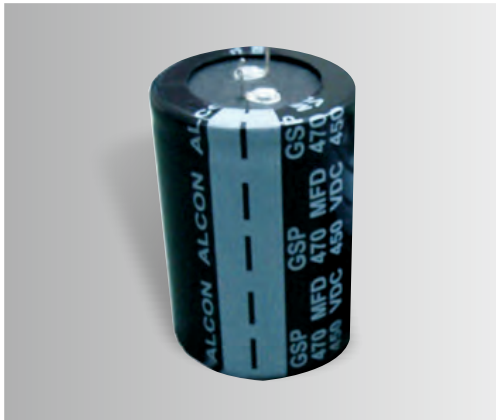


## GSP Series

-40°C +105°C



**GSP Series** - Snap-in Terminal Type, Withstanding 2000 hours application of high ripple current at 105°C.

### Specifications

- **Operation Temperature Range** :-40~+105°C
- **Rated Working Voltage:** 16~500VDC
- **Capacitance Tolerance** (120Hz 20°C) : ±20%(M)
- **Leakage Current** (20°C)

$I \leq 0.02CV$  or 3 (mA) \*Whichever is smaller after 5 min

I : Leakage Current (µA) C : Rated Capacitance (µA)

V : Working Voltage(V)

- **Surge Voltage (20°C)**

W.V.	16	25	35	50	63	80	100	160	180	200	250	350	400	450	500
S.V.	20	32	44	63	79	100	125	200	225	250	300	400	450	500	550

- **Dissipation Factor (tan δ) (120Hz 20°C)**

Rated Voltage (V)	16	25	35	50	63	80	100	≥160				
Capacitance	-	-	-	≤6,800 ≥10,000	≤6,800 ≥10,000	≤3,300 ≥4,700	≤3,300 ≥4,700	-				
tan δ	0.50	0.40	0.35	0.30	0.35	0.25	0.35	0.20	0.25	0.20	0.25	0.15

- **Low Temperature Stability**

Impedance ratio at 120Hz

Rated Voltage (V)	16	25	35	40	63~100	160~250	350~500
-25°C/ +20°C	6	6	6	4	3	4	6
-40°C/ +20°C	15	15	10	8	6	-	-

- **Load Life**

After 2000 hours application of W. V. at +105°C, the capacitor shall meet the following limits.

Capacitance Change	≤±20% of initial value
Dissipation Factor	≤175% of initial specified value
Leakage Current	≤ initial specified value

- **Shelf Life**

At +105°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)

- **Ripple Current Coefficients**

Temperature (°C)	40	60	70	85	105
Multiplier	2.50	2.20	2.00	1.80	1.00
Frequency (Hz)	60	120	400	1K	10K
W.V.	Multiplier				
≤ 100V	0.80	1.00	1.10	1.20	1.20
≥ 160V	0.80	1.00	1.10	1.30	1.40

## GSP Series

-40°C +105°C

### Case Size & Max Ripple Current

V (Code)	16					25					35					50							
	μF	∅D	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	
1500																		25					
																		1.05					
2200													25					30	25				
													1.17					1.31	1.25				
3300							25						30	25				35	30	25			
							1.34						1.43	1.36				1.58	1.52	1.50			
4700	25						30	25					35	30	25			45	35	30	25		
	1.36						1.58	1.51					1.65	1.58	1.56			1.90	1.74	1.73	1.86		
6800	35	30					35	30	25				50	40	30	25			50	35	30		
	1.74	1.67					1.85	1.78	1.75				2.09	1.94	1.82	1.96			2.19	1.98	2.15		
10000	45	35	25				45	35	30	25				50	35	30				45	40		
	2.09	1.92	1.77				2.19	2.01	2.00	2.15				2.24	2.03	2.20				2.39	2.62		
15000		45	35	30				45	35	30					50	40						50	
		2.29	2.17	2.36				2.54	2.41	2.61					2.79	2.92						3.52	
22000			45	35					45	40													50
			2.86	2.97					3.24	3.55													4.62
27000																							50
																							65
33000																							50
																							55
47000																							50
																							5.24
56000																							50
																							60
																							L(mm)
																							R.C.

Case size : D x L (mm)

Max ripple current : A(rms) 105°C 120Hz

## GSP Series

-40°C +105°C

### Case Size & Max Ripple Current

V (Code)	63					80					100					160								
	μF	∅D	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45		
330																		25						
																		0.88						
390																		30	25					
																		1.03	1.03					
470																		30	25					
																		1.14	1.14					
560																		35	30	25				
																		1.32	1.33	1.38				
680																		40	35	25				
																		1.55	1.57	1.53				
820																		45	40	30	25			
																		1.79	1.82	1.80	1.84			
1000	25						30	25				30	25					45	35	25				
	0.91						1.04	0.99				1.11	1.06					2.12	2.12	2.04				
1200																		50	35	30				
																		2.43	2.32	2.39				
1500	30	25					35	30	25			40	35	25					45	35				
	1.14	1.08					1.28	1.23	1.21			1.44	1.39	1.29					2.88	2.84				
1800																					40			
																					3.28			
2200	35	30	25				50	40	30	25			45	35										
	1.40	1.35	1.33				1.72	1.60	1.50	1.61			1.77	1.68										
3300	45	40	30	25			50	40	30				45	35									50	
	1.77	1.72	1.61	1.73			1.97	1.78	1.93				2.07	2.15									4.52	
3900																							55	
																							5.11	
4700		50	35	30				50	40					45										
		2.03	1.84	2.00				2.11	2.32					2.52										
6800			45	40					50															
			2.20	2.41					2.72															
8200																		60						
																		3.27						
10000					50													65						
					2.87													3.73						
12000										60														
										3.95														
15000						60				65														
						3.95				4.57														
18000							65																	L(mm)
						4.48																		R.C.

Case size : D x L (mm)

Max ripple current : A(rms) 105°C 120Hz

## GSP Series

-40°C +105°C

### Case Size & Max Ripple Current

V (Code)	180					200					250					
	μF / ∅D	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45
220						25					30	25				
						0.85					0.91	0.91				
270	25					25					35	25				
	0.80					0.94					1.07	1.01				
330	30	25				30	25				35	30	25			
	0.95	0.95				1.12	1.12				1.19	1.20	1.24			
390	30	25				35	25				40	35	25			
	1.03	1.04				1.31	1.22				1.37	1.39	1.35			
470	35	30	25			40	30	25			50	40	30	25		
	1.21	1.22	1.27			1.52	1.45	1.50			1.66	1.61	1.59	1.63		
560	40	30	25			45	35	30				45	35	25		
	1.40	1.34	1.39			1.75	1.68	1.76				1.85	1.85	1.78		
680	45	35	30	25		50	40	30	25			50	35	30		
	1.63	1.57	1.64	1.68		2.02	1.96	1.94	1.98			2.14	2.04	2.10		
820	50	40	30	25			45	35	30				45	35		
	1.88	1.83	1.80	1.85			2.27	2.26	2.33				2.49	2.45		
1000		45	35	30			50	40	30					40		
		2.12	2.12	2.18			2.63	2.64	2.58					2.86		
1200			40	30				45	35					45		
			2.45	2.39				3.04	3.00					3.29		
1500			50	35					45					50		
			2.91	2.74					3.58					3.68		
1800				40					50							
				3.17					4.10							
2200																55
																4.29
2700										50						65
										4.43						5.10
3300					55					60						
					4.70					5.28						
3900					65											L(mm)
					5.48											R.C.

Case size : D x L (mm)

Max ripple current : A(rms) 105°C 120Hz

## GSP Series

-40°C +105°C

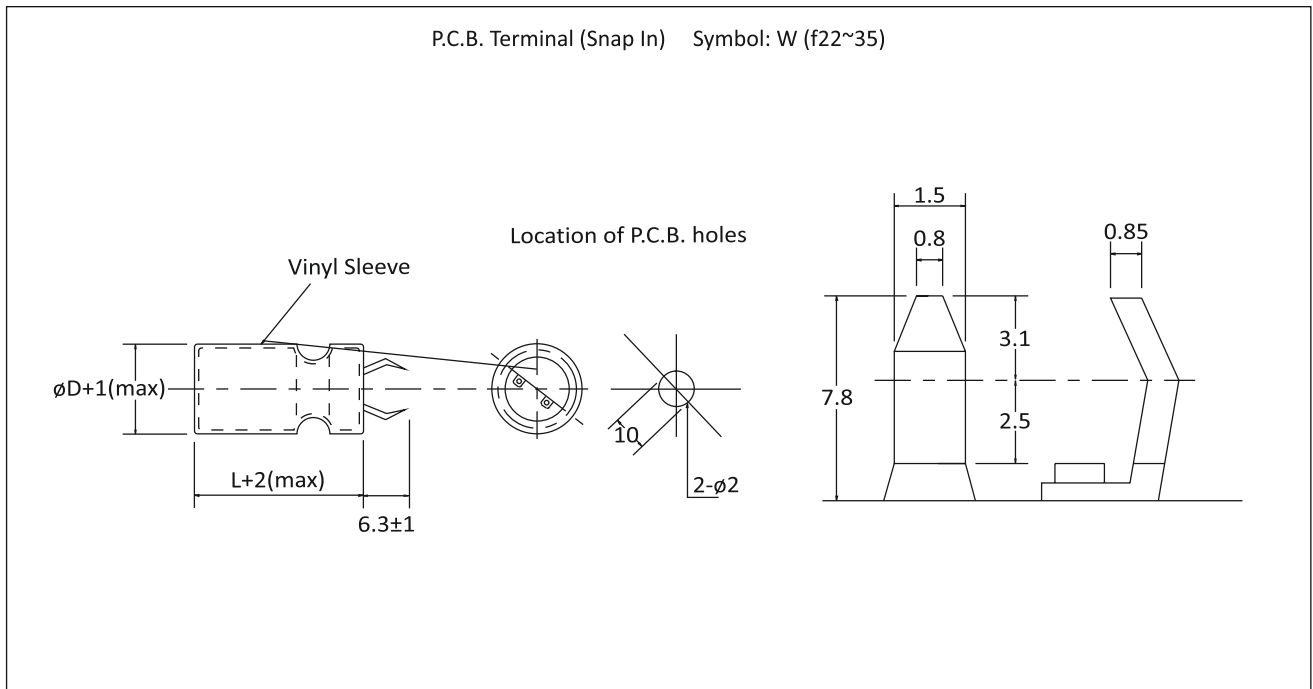
### Case Size & Max Ripple Current

V (Code)	350					400					450					500							
	μF	∅D	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	22	25	30	35	45	
47													25					25					
													0.39					0.27					
68							25						30	25				30	25				
							0.47						0.50	0.50				0.35	0.35				
82	25						30	25					35	30				35	30				
	0.43						0.56	0.56					0.59	0.60				0.41	0.41				
100	30	25					30	25					40	35	25			40	35	30			
	0.51	0.51					0.61	0.61					0.69	0.70	0.68			0.47	0.48	0.50			
120	30	25					35	30	25				45	35	30	25		50	40	35	25		
	0.55	0.55					0.72	0.73	0.75				0.80	0.77	0.80	0.82		0.57	0.56	0.59	0.56		
150	35	30	25				40	35	30				45	35	30			45	40	30			
	0.66	0.67	0.69				0.85	0.86	0.90				0.96	0.96	0.99			0.66	0.69	0.68			
180	40	35	30				45	40	30	25			50	35	30			50	40	35			
	0.77	0.78	0.82				0.98	1.00	0.99	1.01			1.10	1.05	1.08			0.75	0.76	0.79			
220	50	40	30	25			45	35	30				40	35				45	40				
	0.94	0.91	0.90	0.92			1.17	1.16	1.20				1.22	1.27				0.88	0.92				
270		45	35	30			50	40	30				50	40				50	45				
		1.07	1.06	1.10			1.35	1.36	1.33				1.49	1.48				1.02	1.07				
330		50	40	30				45	35					45						50			
		1.23	1.24	1.21				1.58	1.56					1.72						1.23			
390			45	35					40					50									
			1.42	1.40					1.79					1.96									
470				40					45														
				1.62					2.07														
560				45					50														
				1.86					2.36														
680																		55					
																		2.49					
820												50						65					
												2.72						2.93					
1000					55							60											
					2.59							3.24											
2200					65																		L(mm)
					4.12																		R.C.

Case size : D x L (mm)

Max ripple current : A(rms) 105°C 120Hz

### TERMINAL TYPE



Dimension in mm.