ELCON

Snap-in Terminal Type Aluminum Electrolytic Capacitors

GS Series GH Series

● GS Series large size capacitors have "self-standing" terminals and can be directly soldered to printed circuit boards without any fixing clamps or adhesive agents. They are easily fixed to printed circuit boards due to the specially designed terminals

■SPECIFICATIONS

Item	Characteristics			
Series	GS		GH	
Category Temperature Range	-40 ~ +85℃	-25 ~ +85℃	-40 +105℃	-25 ~ +105℃
Voltage Range	16 ~ 100V.DC	160 ~ 450V.DC	16 ~ 100V.DC	160 ~450V.DC
Nominal Cap. Range	47 ~ 33000μF			
Capacitance Tolerance	± 20 % (at 120Hz , 20℃)			
Leakage Current	I=0.02C or 3000 (μA) Whichever is smaller (After 5 minutes). where, I: max leakage current (μA), C:Nominal capacitance (μF), V:Rated voltage (V) (at 20℃)			

Dissipation Factor (MAX) (tanδ) (at 120Hz, 20℃)

WV	16	25	35	50	63~100	160~450
tanδ	0.50	0.40	0.35	0.30	0.25	0.15

Low Temp.Impedance Stability at 120Hz

WV	16	25	35	50、63	80、100	160~450
Z-25℃ /	4	3	3	2	2	4
Z-40℃ /	15	10	8	6	5	--

Endurance

The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied for 2000 hours at 85℃ (GH, at 105℃).

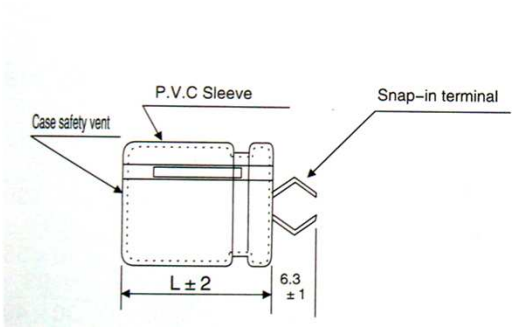
Capacitance change	≤ ±20% of the initial value
Dissipation Factor	≤ 200% of the initial specified value
Leakage Current	≤ the initial specified value

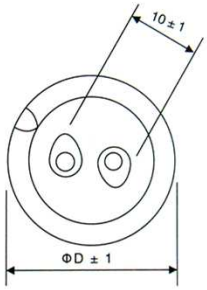
Shelf Life

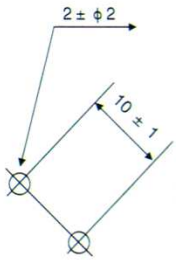
The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them at the rated 85℃ (GH,105℃) for 1000 hours without voltage applied to the capacitors for a minimum of 30 minutes, at least 24 hours but not more than 48 hours before the measurements.

Capacitance Change	≤ ±20% of the initial value
Dissipation Factor	≤ 200% of the initial specified value
Leakage Current	≤ the initial specified value

■ DRAWING







■ MULTIPLIER FOR RIPPLE CURRENT(GS)

(1) Frequency Coefficient

Freq.(Hz) / Cap.(μF)	60(50)	120	500	1K	10K
82~470	0.70	1.00	1.10	1.15	1.20
560~1000	0.75	1.00	1.20	1.25	1.35
1200~4700	0.80	1.00	1.25	1.35	1.40
≥6800	0.85	1.00	1.30	1.40	1.45

(2) Temperature Coefficient

Ambient Temperature(℃)	40	60	70	85
Coefficient	2.40	2.10	1.78	1.00

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GS

Series

■STANDARD RATINGS

WV(vdc) / ΦD / Parameter / Cap.(μF)	16				25				35				50				63				80				100			
	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
1000	Case Size L(mm) ▶ / Ripple Current(Arms) at 120Hz 85℃ ▶																				25 1				30 1	20 1		
1500																	25 1				30 1	25 1			35 1	(30)	25 1	
2200													25 1				30 1	25 1			40 1	(30)	25 1		50 1	(40)	(30)	25 1
3300									25 1				30 1	25 1			35 2	(30)	25 2		50 2	(40)	(30)	25 2		50 2	(40)	30 2
4700					25 1				30 2	25 2			35 2	(30)	25 2		45 2	(35)	(30)	25 2		50 2	(40)	30 2			50 2	40 2
6800	25 2				30 2	25 2			35 2	(30)	25 2		50 2	(40)	(30)	25 2		50 2	(35)	30 2			50 3	40 2				
10000	30 2	25 2			35 2	(30)	25 2		45 2	(35)	(30)	25 2		50 2	(35)	30 2			45 3	40 3								
15000	40 3	(35)	25 4		45 3	(35)	(30)	25 3		50 3	(35)	30 3			50 3	40 3												
22000		45 4	(35)	25 3		45 4	(35)	30 3			45 4	40 4																
33000			45 4	35 4			50 4	40 4																				

WV(vdc) / ΦD / Parameter / Cap.(μF)	160				180				200				250				350				400				450			
	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
82																					25 1				30 1	25 1		
100																	25 1				30 1	25 1			35 1	30 1	25 1	
120																	30 1	25 1			30 1	25 1			40 1	30 1	25 1	
150																	30 1	25 1			35 1	30 1	25 1		45 1	35 1	30 1	
180																	35 1	(30)	25 1		40 1	35 1	25 1		50 2	40 2	30 1	25 1
220									25 1				25 1				40 1	(35)	(25)		50 2	40 2	30 2	25 2		45 2	35 2	30 2
270									25 2				30 2	25 2			50 2	(40)	(30)	25 2		45 2	35 2	30 2			40 2	35 2
330					25 1				30 2	25 2			35 2	30 2				45 2	(35)	30 2		50 2	40 2	30 2			45 2	35 2
390	25 1				30 2	25 2			30 2	25 2			35 2	30 2	25 2			50 2	(40)	30 2			45 3	35 2				40 3
470	30 2	25 2			30 2	25 1.74			35 2	30 2	25 2		40 2	35 2	25 2	25 2			40 2	36 2				40 3				45 3
560	35 2	30 2			35 2	(30)	25 2		40 3	35 3	25 2		50 3	40 3	30 3	25 3			50 3	(40)				45 3				
680	40 2	(30)	25 2		40 2	(35)	25 2		45 3	35 3	30 3	25 3		45 3	35 3	30 3				45 3								
820	45 3	(35)	30 3		45 3	(40)	(30)	25 3		40 3	30 3	25 3		50 4	40 3	30 3												
1000	50 3	(40)	(30)			45 3	(35)	25 3		50 4	35 4	30 4			45 4	36 4												
1200		45 3	(35)			50 4	(40)	30 3			40 4	36 4			50 5	40 4												
1500			40 4				45 4	36 4				40 5																
1800			45 4					40 5																				

Case size L in parentheses is not standard. On ordering,please ask us for detailed specifications.

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GH

Series

■STANDARD RATINGS

WV(vdc) / ΦD / Parameter / Cap.(μF)	16				25				35				50				63				80				100			
	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
1000	Case Size L(mm) ⟶ / Ripple Current(Arms) at 120Hz 105℃ ⟶																251				301	251			301	251		
1500													251				301	251			351	(30)	251		401	(35)	251	
2200									251				301	251			351	301	251		501	(40)	(30)	251		451	351	
3300					251				301	251			351	301	251		451	401	301			501	(40)	301			451	351
4700	251				301	251			351	(30)	251		451	351	301	251		501	351				501	401				451
6800	351	301			351	(30)	251		501	(40)	(30)	251		502	351	301			452									
10000	451	(35)	251		451	(35)	(30)	251		502	(35)	301			452	402												
15000		452	(35)			452	(35)	302			502	402																
22000			452				402	402																				
33000																												

WV(vdc) / ΦD / Parameter / Cap.(μF)	160				180				200				250			
	22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
150																
180																
220									251				301	251		
270					2586				251				351	251		
330	251				301	251			301	251			351	301	251	
390	301	251			301	251			351	251			401	351	251	
470	301	251			351	(30)	251		402	302	252		502	402	302	252
560	351	(30)	251		401	(30)	251		452	352	302	252		452	352	252
680	402	(35)	252		452	(35)	302	252	452	402	352	302		502	352	302
820	452	(40)	(30)	252	502	(40)	(30)	252		452	403	303			452	352
1000		452	(35)	252		452	(35)	302		503	453	353				403
1200		502	(35)	302			402	302				453				453
1500			453	353			503	353								
1800				403				403								

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■STANDARD RATINGS

WV(vdc) / ΦD / Parameter / Cap.(μF)	350				400				450			
	22	25	30	35	22	25	30	35	22	25	30	35
47	Case Size L(mm) → / Ripple Current(Arms) at 120Hz 105℃ →								25 0.42			
68					25 0.52				30 0.55	25 0.54	25 0.71	
82	25 0.47				30 0.6	25 0.6			35 0.64	30 0.64	30 0.82	25 0.82
100	30 0.56	25 0.55			30 0.67	25 0.66			40 0.74	35 0.74	35 0.96	30 0.96
120	30 0.61	25 0.6			35 0.78	30 0.77	25 0.78		45 0.85	35 0.8	35 1.06	30 1.06
150	35 0.72	(30)	25 0.72		40 0.91	35 0.91	30 0.92	25 1.01		45 1	40 1.22	35 1.25
180	40 0.83	(35)	30 0.84		45 1.04	40 1.04	30 1.01	30 1.18		50 1.14	50 1.48	40 1.43
220	50 1.01	(40)	(30)	25 0.93		45 1.21	35 1.18	30 1.31				45 1.64
270		45 1.12	(35)	30 1.09		50 1.4	40 1.37	35 1.52				
330		50 1.29	(40)	30 1.2			45 1.57	40 1.73				
390			45 1.43	35 1.38				45 1.97				
470				40 1.58								
560				45 1.79								

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■ MULTIPLIER FOR RIPPLE CURRENT(GH)

(1) Frequency Coefficient

Freq.(Hz) / Cap(μF)	60(50)	120	500	1K	10K
82~470	0.70	1.00	1.10	1.15	1.20
560~1000	0.75	1.00	1.20	1.25	1.35
1200~4700	0.80	1.00	1.25	1.35	1.40
≥6800	0.85	1.00	1.30	1.40	1.45

(2) Temperature Coefficient

Ambient Temperature(℃)	40	60	70	85	105
Coefficient	2.40	2.10	1.78	1.65	1.00