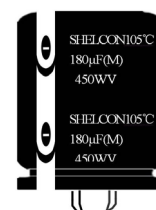


SHELCON LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS

SHS SERIES

STH SERIES

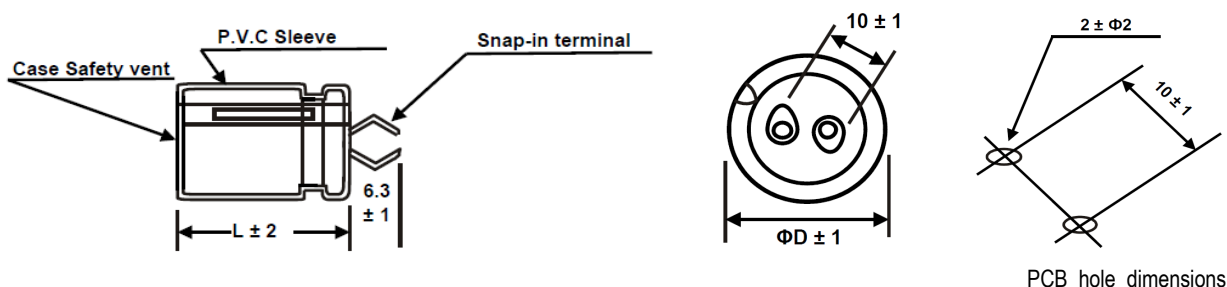
● EGS Series large size capacitors have "self-standing" terminals and can be directly soldered to printed circuit boards without any fixing clamps or adhesive agents. They are easily fixed to printed circuit boards due to the specially designed terminals.



■ SPECIFICATIONS

Series	SHS	STH								
Category Temperature Range	16V ~ 100V: -40 ~ +85°C	16V ~ 100V: -40 ~ +105°C								
	160V ~ 450V: -25 ~ +85°C	160V ~ 450V: -25 ~ +105°C								
Nominal Cap. Range	82 ~ 33,000µF									
Capacitance Tolerance	-20% ~ +20% (-10 ~ +30%)									
Leakage Current	I=0.02 CV or 3(µA) whichever is smaller, after 5 min									
Dissipation Factor(tanδ) Low Temp. Impedance Stability at 120Hz	16 V ~ 100V : Dissipation factor at 20°C , 120Hz shall not exceed the values given in the table of Standard Ratings 160V ~ 450V : ≤ 0.15									
	W. V .	10	16	25	35	50	63	80	100	160 ~ 450
	Z(-25°C)/Z(+20°C)	4	3	3	2	2	2	2	2	4
Z(-40°C)/Z(+20°C)	15	10	8	6	6	5	5	5	-	
High Temp. Load Test	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated working voltage applied for 2,000 hours at 85°C (STH, at 105°C)									
High Temp. Non-Load Test	The following specifications shall be satisfied when then capacitors are restored to 20°C after exposing them at the rated 85°C (STH, at 105°C) for 1,000 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	... ≤ 150% of the initial specified value								
DC Leakage Current	... ≤ the initial specified value									

● DRAWING



SHS SERIES

● MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Coefficient

Cap.(µF) \ Freq.(Hz)	(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 up	0.85	1.00	1.30	1.40	1.45

(2) Temperature Coefficient

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

SHS series

Case Size Table

Cap. (μF)	16				25				35				50				63				80				100							
	Case Size L (mm)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)											
	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)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)				Case Size L (mm)							
	Dissipation Factor				Dissipation Factor				Dissipation Factor				Dissipation Factor				Dissipation Factor				Dissipation Factor				Dissipation Factor							
	Ripple Current (Arms) 120Hz at 85°C				Ripple Current (Arms) 120Hz at 85°C				Ripple Current (Arms) 120Hz at 85°C				Ripple Current (Arms) 120Hz at 85°C				Ripple Current (Arms) 120Hz at 85°C				Ripple Current (Arms) 120Hz at 85°C				Ripple Current (Arms) 120Hz at 85°C							
1500																																
2200																																
3300																																
4700																																
6800																																
10000																																
15000																																
22000																																
33000																																

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

Case Size Table

Cap. (μF)	160					180					200					250					350					400					450				
	Case Size L (mm)					Case Size L (mm)					Case Size L (mm)					Case Size L (mm)					Case Size L (mm)					Case Size L (mm)									
	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40
82	Case Size L (mm)					Case Size L (mm)					Case Size L (mm)					Case Size L (mm)					Case Size L (mm)					Case Size L (mm)									
	Ripple Current (Arms) 120Hz at 85°C					Ripple Current (Arms) 120Hz at 85°C					Ripple Current (Arms) 120Hz at 85°C					Ripple Current (Arms) 120Hz at 85°C					Ripple Current (Arms) 120Hz at 85°C					Ripple Current (Arms) 120Hz at 85°C									
100																																			
120																																			
150																																			
180																																			
220																																			
270																																			
330																																			
390																																			
470																																			
560																																			
680																																			
820																																			
1000																																			
1200																																			
1500																																			
1800																																			

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

STH series

Case Size Table

Cap. (μF)	WV				25				35				50				63				80				100																			
	SV				32				44				63				79				100				125																			
	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	22	25	30	35												
1000	Case Size L (mm) →																								25				30				25				30				25			
	Dissipation Factor →																								0.25				0.20				0.20				0.20				0.20			
	Ripple Current (Arms) 120Hz at 105°C →																								0.56				0.59				0.59				0.59				0.59			
1500																									25				30				25				30				25			
																									0.30				0.25				0.20				0.20				0.20			
																									0.68				0.73				0.72				0.77				0.77			
2200																									25				30				25				50				(40)			
																									0.35				0.30				0.25				0.20				0.20			
																									0.71				0.76				0.75				0.81				0.81			
3300																									25				30				25				40				(30)			
																									0.40				0.35				0.30				0.25				0.20			
																									0.87				0.93				0.92				0.99				0.98			
4700	25				30				25				35				(30)				25				45				35				30				25							
	0.50				0.40				0.40				0.35				0.35				0.30				0.30				0.30				0.25				0.25							
	0.93				1.00				0.98				1.05				1.05				1.16				1.11				1.12				1.12				1.27				1.18			
6800	35		30		35		(30)		25		50		(40)		(30)		25		50		35		30		45		40		50		40		50		40									
	0.50		0.50		0.40		0.40		0.35		0.35		0.30		0.30		0.30		0.30		0.25		0.25		0.25		0.25		0.25		0.25		0.25		0.25									
	1.27		1.26		1.27		1.27		1.46		1.34		1.34		1.53		1.42		1.42		1.55		1.56		1.55		1.56		1.55		1.56		1.55		1.56									
10000	45		(35)		25		45		(35)		(30)		25		50		(35)		30		45		40		50		40		50		40		50		40									
	0.50		0.50		0.40		0.40		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35									
	1.43		1.30		1.43		1.38		1.57		1.46		1.59		1.60		1.59		1.60		1.59		1.60		1.59		1.60		1.59		1.60		1.59		1.60									
15000	45		(35)		30		45		(35)		(30)		50		40		50		40		50		40		50		40		50		40		50		40									
	0.50		0.50		0.40		0.40		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35									
	1.84		1.78		1.84		1.78		2.03		1.96		2.03		1.96		2.03		1.96		2.03		1.96		2.03		1.96		2.03		1.96		2.03		1.96									
22000	45		35		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40									
	0.50		0.50		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40									
	2.36		2.27		2.36		2.38		2.36		2.38		2.36		2.38		2.36		2.38		2.36		2.38		2.36		2.38		2.36		2.38		2.36		2.38									
33000	45		35		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40									

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Case Size Table

Cap. (μF)	WV					180					200					250										
	SV					225					250					300										
	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40						
150	Case Size L (mm) →																									
	Ripple Current (Arms) 120Hz at 105°C →																									
180																										
220											25					30					25					
											1.09					1.00					0.98					
270											25					35					25					
											0.86					1.03					1.16					
330	25		30		25		30		25		30		25		35		30		25		35		30		25	
	0.98		1.01		1.00		1.21		1.20		1.28		1.27		1.28		1.28		1.27		1.28		1.28		1.28	
390	30		25		30		25		35		25		40		35		25		40		35		25		30	
	1.10		1.09		1.10		1.09		1.39		1.31		1.48		1.46		1.39		1.48		1.46		1.39		1.48	
470	30		25		35		(30)		25		40		30		25		50		40		30		25		30	
	1.21		1.19		1.28		1.28		1.62		1.52		1.54		1.76		1.69		1.63		1.62		1.62		1.62	
560	35		(30)		25		40		(30)		25		45		35		30		25		45		35		25	
	1.40		1.40		1.47		1.48		1.85		1.75		1.96		1.96		1.93		1.87		1.78		1.78		1.78	
680	40		(35)		25		45		(35)		30		25		45		40		35		30		50		35	
	1.62		1.54		1.70		1.63		2.04		2.04		2.27		2.27		2.22		2.06		2.06		2.06		2.06	
820	45		(40)		25		50		(40)		25		45		40		30		45		36		45		36	
	1.86		1.79		1.94		1.79		2.34		2.63		2.51		2.48		2.41		2.48		2.41		2.48		2.41	
1000	45		(35)		25		45		(35)		30		50		45		36		40		2.76		40		2.76	
	2.15		1.98		2.15		2.09		2.70		3.00		2.92		2.92		2.92		2.92		2.92		2.92		2.92	
1200	50		(35)		30		40		30		45		30		45		30		45		3.14		45		3.14	
	2.46		2.29		2.39		2.29		3.38		3.38		3.38		3.38		3.38		3.38		3.38		3.38		3.38	
1500	45		36		50		36		50		36		50		36		50		36		50		36		50	
	2.80		2.72		2.91		2.72		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09	
1800	45		30		40		30		40		30		40		30		40		30		40		30		40	
	3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09		3.09	

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SHELCON LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS

STH series

Case Size Table

Cap (μF)	350					400					450				
	22	25	30	35	40	22	25	30	35	40	22	25	30	35	40
47	Case Size L (mm) →										25				
	Ripple Current (Arms) 120Hz at 105°C →										0.42				
68						25					30	25	25		
						0.52					0.55	0.54	0.71		
82	25					30	25				35	30	30	25	
	0.47					0.60	0.60				0.64	0.64	0.82	0.82	
100	30	25				30	25				40	35	35	30	
	0.56	0.55				0.67	0.66				0.74	0.74	0.96	0.96	
120	30	25				35	30	25			45	35	35	30	
	0.61	0.60				0.78	0.77	0.78			0.85	0.80	1.06	1.06	
150	35	(30)	25			40	35	30				45	40	36	
	0.72		0.72			0.91	0.91	0.92				1.00	1.22	1.24	
180	40	(35)	30			45	40	30	25			50	50	40	
	0.83		0.84			1.04	1.04	1.01	1.01			1.14	1.48	1.43	
220	50	(40)	(30)	25			45	35	30					45	
	1.01			0.93			1.21	1.18	1.18					1.64	
270		45	(35)	30			50	40	30						
		1.12		1.09			1.40	1.37	1.31						
330		50	(40)	30				45	36						
		1.29		1.20				1.57	1.52						
390			45	36					40						
			1.43	1.38					1.73						
470				40					45						
				1.58					1.97						
560				45											
				1.79											

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

STH SERIES

● MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Coefficient

Cap.(μF)	Freq.(Hz)	(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 up		0.85	1.00	1.30	1.40	1.45

(2) Temperature Coefficient

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