

USG SERIES

85°C Miniaturized, Snap-in Terminal Type

◆ FEATURES

- Load Life : 85°C 2000 hours.
- Smaller size than USC series.
- RoHS compliance.



◆ SPECIFICATIONS

Items	Characteristics			
Category Temperature Range	-40~+85℃		-25~+85℃	
Rated Voltage Range	160~250V.DC		400~450V.DC	
Capacitance Tolerance	±20% (20℃, 120Hz)			
Leakage Current(MAX)	I=3 √CV (After 5 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)			
(tanδ) Dissipation Factor(MAX)	0.2 (20℃, 120Hz)			
Impedance Ratio(MAX)	Rated Voltage (V)	160~250	400	420~450
	Z (-25℃)/Z (20℃)	4	8	12
	Z (-40℃)/Z (20℃)	12	—	—
Endurance	(120Hz)			
	After applying rated voltage with rated ripple current for 2000 hrs at 85℃, the capacitors shall meet the following requirements.			
	Capacitance Change	Within ±20% of the initial value.		
	Dissipation Factor	Not more than 200% of the specified value.		
	Leakage Current	Not more than the specified value.		

◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60(50)	120	500	1k	10k ≤
Coefficient	160~250WV	0.80	1.00	1.20	1.30	1.50
	400~450WV	0.80	1.00	1.20	1.25	1.40

◆ PART NUMBER

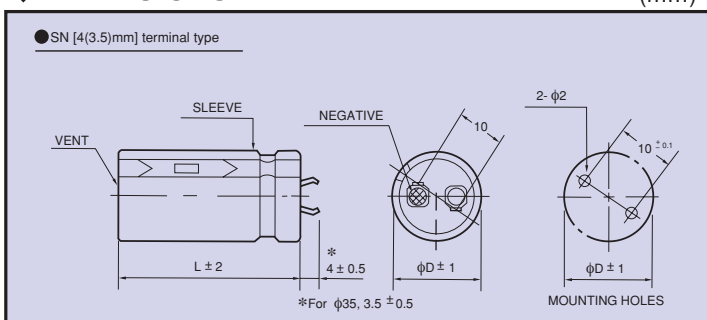
□□□ Rated Voltage USG Series □□□□□ Rated Capacitance □ Capacitance Tolerance □□□ Option SN Terminal Code D×L Case Size

◆ Option

	Code
PET Sleeve without plate	EFC
PVC Sleeve without plate	OOE
PVC Sleeve with plate	Blank

◆ DIMENSIONS

(mm)



◆ STANDARD SIZE

Cap (μ F)	WV ϕ D	160					180				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
390		20X25: 1.19					20X25: 1.84				
470		20X30: 1.76	22X25: 1.76				20X30: 2.08	22X25: 2.08			
560		20X30: 2.25	22X25: 2.25				20X35: 2.25	22X30: 2.25			
680		20X35: 2.50	22X30: 2.50	25X25: 2.50			20X40: 2.50	22X35: 2.50	25X25: 2.50		
820		20X40: 2.75	22X35: 2.75	25X30: 2.75			20X45: 2.75	22X40: 2.75	25X30: 2.75		
1000			22X40: 3.00	25X30: 3.00	30X25: 3.00			22X45: 3.00	25X35: 3.00	30X25: 3.00	
1200			22X45: 3.25	25X35: 3.25	30X30: 3.25			22X50: 3.31	25X40: 3.31	30X30: 3.31	35X25: 3.31
1500				25X45: 3.73	30X35: 3.73				25X50: 3.83	30X35: 3.83	35X30: 3.83
1800				25X50: 4.20	30X35: 4.20	35X30: 4.20				30X40: 4.32	35X35: 4.32
2200					30X45: 4.78	35X35: 4.78				30X50: 4.92	35X40: 4.92
2700					30X50: 5.45	35X40: 5.45					35X45: 5.52
3300						35X45: 5.75					

Cap (μ F)	WV ϕ D	200					220				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
270							20X25: 1.42				
330		20X25: 1.44					20X30: 1.58	22X25: 1.58			
390		20X30: 1.68	22X25: 1.68				20X35: 1.75	22X30: 1.75			
470		20X35: 1.93	22X30: 1.93	25X25: 1.93			20X35: 1.99	22X30: 1.99	25X25: 1.99		
560		20X35: 2.43	22X30: 2.43	25X25: 2.43			20X40: 2.28	22X35: 2.28	25X30: 2.28		
680		20X40: 2.68	22X35: 2.68	25X30: 2.68	30X25: 2.68			22X40: 2.46	25X30: 2.46	30X25: 2.46	
820			22X40: 2.93	25X30: 2.93	30X25: 2.93			22X45: 2.81	25X35: 2.81	30X30: 2.81	
1000			22X45: 3.25	25X35: 3.25	30X30: 3.25	35X25: 3.25			25X45: 3.29	30X30: 3.29	
1200				25X45: 3.50	30X35: 3.50	35X30: 3.50			25X50: 3.60	30X35: 3.60	35X30: 3.60
1500				25X50: 3.87	30X40: 3.87	35X30: 3.87				30X45: 3.92	35X35: 3.92
1800					30X45: 4.32	35X35: 4.32				30X50: 4.30	35X40: 4.30
2200					30X50: 4.92	35X40: 4.92					35X50: 4.95
2700						35X50: 5.45					

Cap (μ F)	WV ϕ D	250					400				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
82							20X25: 0.80				
100							20X30: 0.94	22X25: 0.94			
120							20X30: 1.08	22X25: 1.08			
150							20X35: 1.21	22X30: 1.21	25X25: 1.21		
180							20X40: 1.45	22X35: 1.45	25X25: 1.45		
220		20X25: 1.23						22X40: 1.58	25X30: 1.58	30X25: 1.58	
270		20X30: 1.31	22X25: 1.31					22X45: 1.67	25X35: 1.67	30X25: 1.67	
330		20X30: 1.75	22X25: 1.75					22X50: 1.90	25X40: 1.90	30X30: 1.90	35X25: 1.90
390		20X35: 1.91	22X30: 1.91	25X25: 1.91					25X45: 2.13	30X35: 2.13	35X30: 2.13
470		20X40: 2.11	22X35: 2.11	25X25: 2.11					25X50: 2.39	30X40: 2.39	35X30: 2.39
560			22X40: 2.25	25X30: 2.25	30X25: 2.25					30X45: 2.69	35X35: 2.69
680			22X45: 2.50	25X35: 2.50	30X30: 2.50						35X40: 2.96
820				25X40: 2.77	30X30: 2.77	35X25: 2.77					35X50: 3.25
1000				25X45: 3.32	30X35: 3.32	35X30: 3.32					
1200					30X40: 3.84	35X35: 3.84					
1500					30X50: 4.25	35X40: 4.25					
1800						35X45: 4.55					

Cap (μ F)	WV ϕ D	420					450				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
68							20X25: 0.66				
82		20X25: 0.83					20X25: 0.83				
100		20X30: 0.97	22X25: 0.97				20X30: 0.93	22X25: 0.93			
120		20X30: 1.08	22X25: 1.08				20X35: 1.04	22X30: 1.04	25X25: 1.04		
150		20X35: 1.30	22X30: 1.30	25X25: 1.30			20X40: 1.29	22X35: 1.29	25X25: 1.29		
180		20X40: 1.48	22X35: 1.48	25X30: 1.48				22X40: 1.40	25X30: 1.40	30X25: 1.40	
220			22X40: 1.65	25X35: 1.65	30X25: 1.65			22X45: 1.66	25X35: 1.66	30X25: 1.66	
270			22X50: 1.94	25X35: 1.94	30X30: 1.94			22X50: 1.81	25X40: 1.81	30X30: 1.81	35X25: 1.81
330				25X45: 2.17	30X35: 2.17	35X30: 2.17			25X45: 2.10	30X35: 2.10	35X30: 2.10
390				25X50: 2.27	30X35: 2.27	35X30: 2.27				30X40: 2.32	35X35: 2.32
470					30X40: 2.61	35X35: 2.61				30X45: 2.66	35X40: 2.66
560					30X50: 2.82	35X40: 2.82					35X40: 2.82
680						35X45: 3.11					35X 50 3.00

↑ Ripple Current (A r.m.s./120Hz, 85°C)
Case Size ϕ D X L (mm)