

**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°C	-25 ~ +85°C															
Rated Voltage Range	160~250V.DC	400~450V.DC															
Capacitance Tolerance	±20%(20°C, 120Hz)																
Leakage Current(MAX)	$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I= Leakage Current(µA)      V=Rated Voltage(V)      C=Rated Capacitance(µF)																
Dissipation Factor(MAX) (tanδ)	0.2(20°C, 120Hz)																
Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage(V)</th> <th>160~250</th> <th>400</th> <th>420~450</th> <th>(120Hz)</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>8</td> <td>12</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>-</td> <td>-</td> <td></td> </tr> </tbody> </table>		Rated Voltage(V)	160~250	400	420~450	(120Hz)	Z(-25°C)/Z(20°C)	4	8	12		Z(-40°C)/Z(20°C)	12	-	-	
Rated Voltage(V)	160~250	400	420~450	(120Hz)													
Z(-25°C)/Z(20°C)	4	8	12														
Z(-40°C)/Z(20°C)	12	-	-														
Endurance	After applying rated voltage with rated ripple current for 2000 hrs at 85°C, the capacitors shall meet the following requirements. <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </tbody> </table>		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.									
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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**

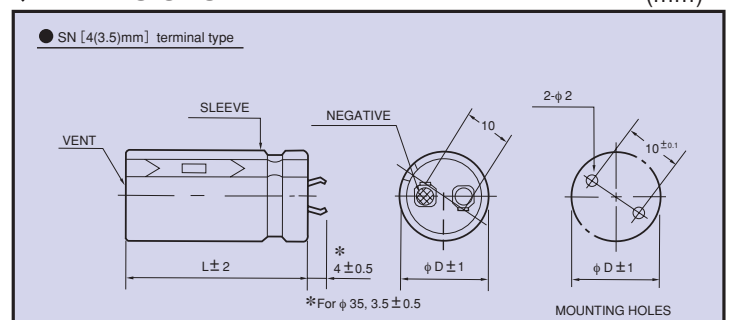
□□□	USG	□□□□□	□	□□□	SN	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Terminal Code	Case Size

**◆ Option**

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

**◆ DIMENSIONS**

(mm)



**◆ STANDARD SIZE**

Cap ( $\mu$ F)	wv $\phi$ D	160					180				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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 ( $\mu$ F)	wv $\phi$ D	200					220				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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 ( $\mu$ F)	wv $\phi$ D	250					400				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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 ( $\mu$ F)	wv $\phi$ D	420					450				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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					35x50   3.00

↑ Ripple Current (A r.m.s./120Hz, 85°C)  
Case Size  $\phi$  D x L (mm)