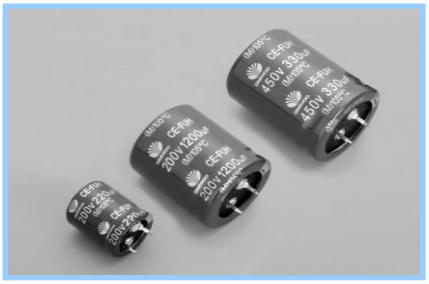
FUH SERIES

105℃, Standard, PCB terminal type

▣ Features



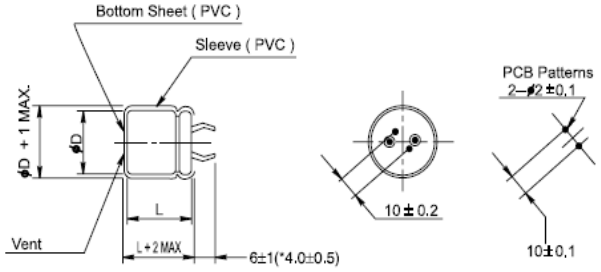
- **105℃, Standard, Snap-in terminal**
- **PCB Mounting**
- **High and stable quality**
- **Load life of 2,000 hours at 105℃**

▣ Specifications

Item	Performance Characteristics						
Operating temperature range	-40℃ ~ +105℃			-25℃ ~ +105℃			
Rated working voltage range	10V ~ 250V			350V ~ 500V			
Nominal capacitance range	47 μF ~ 47,000 μF , ±20% (at 20℃, 120Hz)						
D.C Leakage current(at 20℃)	The following specifications shall be satisfied when the rated voltage is applied for the required time						
	I ≤ 0.02CV or 2mA (5min), whichever is less.						
	Where I = Leakage current(μA) C = Nominal capacitance(μF) V = Rated voltage (V)						
Tan δ (max., at 20℃, 120Hz)	W.V	10~16	25~35	50~80	100	160~400	450~500
	Tan δ	0.40	0.35	0.25	0.20	0.15	0.20
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	10~16	35~100		160~250	350~500	
	Z-25℃/Z+20℃	4	3		3	8	
	Z-40℃/Z+20℃	12	6		6	-	
Load life	After applying rated working voltage for 2,000 hours at +105℃ and then listed being stabilized at +20℃, capacitors shall meet following limits.						
	Capacitance change	Within ± 20% of the initial measured value					
	Tan δ	≤ 200% of the initial specified value					
	Leakage current	≤ The initial specified value					
Shelf life	After storage for 1,000hours at + 105℃ with no voltage applied and then being stabilized at +20℃, capacitors shall meet following limits.						
	Capacitance change	Within ± 20% of the initial measured value					
	Tan δ	≤ 200% of the initial specified value					
	Leakage current	≤ The initial specified value					

▣ Dimensions

D= φ22~35



* Shorter terminal is available upon request

▣ Ripple current coefficient

· **Frequency**

W.V(V) \ Freq(Hz)	50	120	1K	10K	100K
16~100	0.90	1.00	1.10	1.15	1.25
160~250	0.80	1.00	1.25	1.40	1.50
350~500	0.84	1.00	1.15	1.20	1.32

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▣ Dimensions & Maximum permissible ripple current

μF \ V	10				16				25				35			
	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35
3,300													22 x 25 1.35			
3,900													22 x 30 1.42	25 x 25 1.48		
4,700									22 x 25 1.30				22 x 30 1.50	25 x 25 1.51		
5,600									22 x 25 1.42	25 x 25 1.44			22 x 35 1.71	25 x 30 1.73	30 x 25 1.75	
6,800					22 x 25 1.42				22 x 30 1.52	25 x 25 1.53			22 x 40 1.94	25 x 35 1.92	30 x 25 1.93	
8,200					22 x 30 1.52	25 x 25 1.52			22 x 35 1.76	25 x 30 1.77	30 x 25 1.79		22 x 50 2.10	25 x 40 2.08	30 x 30 2.08	
10,000	22 x 25 1.88				22 x 30 1.73	25 x 25 1.73			22 x 40 1.89	25 x 35 1.91	30 x 25 1.89			25 x 45 2.24	30 x 35 2.26	35 x 30 2.26
12,000	22 x 30 2.04	25 x 25 2.05			22 x 35 2.00	25 x 30 2.00	30 x 25 2.00		22 x 45 2.21	25 x 40 2.23	30 x 30 2.22	35 x 25 2.23		25 x 50 2.57	30 x 40 2.58	35 x 30 2.58
15,000	22 x 35 2.35	25 x 35 2.37			22 x 40 2.23	25 x 35 2.23	30 x 30 2.23			25 x 45 2.75	30 x 35 2.72	35 x 30 2.75			30 x 45 3.12	35 x 35 3.08
18,000	22 x 35 2.58	25 x 30 2.61	30 x 25 2.59		22 x 45 2.45	25 x 40 2.44	30 x 30 2.50			25 x 50 3.02	30 x 40 3.02	35 x 30 3.00			30 x 50 3.65	35 x 40 3.65
22,000	22 x 45 2.75	25 x 35 3.04	30 x 25 3.01			25 x 45 2.86	30 x 35 2.89	35 x 30 2.83			30 x 45 3.48	35 x 35 3.43				35 x 50 4.02
27,000		25 x 40 3.22	30 x 30 3.20			25 x 50 3.18	30 x 40 3.15	35 x 30 3.15				35 x 45 4.00				
33,000		25 x 50 3.88	30 x 35 4.02	35 x 30 4.00			30 x 45 3.87	35 x 35 3.84				35 x 50 4.72				
39,000			30 x 40 4.31	35 x 30 4.33			30 x 50 4.23	35 x 40 4.20								
47,000			30 x 45 4.62	35 x 35 4.63				35 x 45 4.38								

μF \ V	50				63				80				100			
	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35
560													22 x 25 1.02			
680													22 x 30 1.07	25 x 25 1.08		
820									22 x 25 1.03				22 x 30 1.24	25 x 25 1.25		
1,000									22 x 25 1.21	25 x 25 1.21			22 x 35 1.40	25 x 30 1.42	30 x 25 1.45	
1,200					22 x 25 1.02				22 x 30 1.35	25 x 25 1.35			22 x 40 1.51	25 x 35 1.54	30 x 25 1.57	
1,500					22 x 25 1.15	25 x 25 1.15			22 x 35 1.51	25 x 30 1.52	30 x 25 1.50		22 x 45 1.78	25 x 40 1.78	30 x 30 1.80	
1,800	22 x 25 1.12				22 x 30 1.28	25 x 25 1.28			22 x 40 1.69	25 x 35 1.69	30 x 25 1.68			25 x 45 2.36	30 x 35 2.36	35 x 30 2.38
2,200	22 x 30 1.30	25 x 25 1.31			22 x 35 1.47	25 x 30 1.47	30 x 25 1.47		22 x 45 1.99	25 x 40 2.00	30 x 30 2.02			25 x 50 2.58	30 x 40 2.59	35 x 30 2.60
2,700	22 x 30 1.38	25 x 25 1.39			22 x 40 1.62	25 x 35 1.62	30 x 25 1.73			25 x 45 2.23	30 x 35 2.25	35 x 30 2.25			30 x 45 2.80	35 x 35 2.80
3,300	22 x 35 1.62	25 x 30 1.58	30 x 25 1.61		22 x 45 2.00	25 x 40 2.05	30 x 30 2.02			25 x 50 2.42	30 x 40 2.43	35 x 30 2.40			30 x 50 3.00	35 x 40 3.00
3,900	22 x 40 1.80	25 x 35 1.82	30 x 25 1.79			25 x 45 2.24	30 x 35 2.26	35 x 30 2.26			30 x 45 2.68	35 x 35 2.68				35 x 45 3.16
4,700	22 x 45 2.00	25 x 35 1.98	30 x 30 1.96	35 x 25 2.05		25 x 50 2.52	30 x 40 2.52	35 x 30 2.50			30 x 50 3.06	35 x 40 3.06				35 x 50 3.34
5,600	22 x 50 2.25	25 x 40 2.20	30 x 35 2.26	35 x 25 2.20			30 x 45 2.84	35 x 35 2.83				35 x 45 3.45				
6,800		25 x 50 2.75	30 x 40 2.75	35 x 30 2.71			30 x 50 3.28	35 x 40 3.26				35 x 50 3.76				
8,200			30 x 45 3.00	35 x 35 2.98				35 x 45 3.48								
10,000			30 x 50 3.52	35 x 40 3.51				35 x 50 3.96								
12,000				35 x 45 3.84	Case size : ΦD x L(mm) Maximum permissible ripple current[A(rms) at 105℃, 120㎐]											

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▣ Dimensions & Maximum permissible ripple current

μF \ V	160				180				200				250			
	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35
150									22 x 20 0.50				22 x 25 0.60	25 x 20 0.59		
180									22 x 20 0.58	25 x 20 0.60			22 x 30 0.70	25 x 20 0.68		
220		25 x 20 0.60			22 x 20 0.80				22 x 25 0.64	25 x 20 0.64			22 x 30 0.84	25 x 25 0.83	30 x 20 0.81	
270	22 x 25 0.90	25 x 20 0.70			22 x 25 0.93	25 x 20 0.95			22 x 25 0.81	25 x 20 0.79			22 x 30 1.01	25 x 25 1.00	30 x 20 1.00	
330	22 x 25 1.10	25 x 20 1.00			22 x 30 1.05	25 x 25 1.05			22 x 30 1.10	25 x 25 1.11	30 x 20 1.10		22 x 35 1.10	25 x 30 1.10	30 x 25 1.16	35 x 20 1.07
390	22 x 30 1.20	25 x 25 1.15			22 x 30 1.20	25 x 30 1.23	30 x 20 1.22		22 x 30 1.18	25 x 25 1.18	30 x 25 1.17		22 x 40 1.33	25 x 35 1.35	30 x 25 1.32	35 x 25 1.35
470	22 x 30 1.26	25 x 25 1.23	30 x 20 1.09	35 x 20 1.25	22 x 35 1.33	25 x 35 1.33	30 x 25 1.35		22 x 35 1.29	25 x 30 1.29	30 x 25 1.30	35 x 20 1.20	22 x 45 1.37	25 x 35 1.35	30 x 30 1.40	35 x 25 1.40
560	22 x 35 1.36	25 x 30 1.41	30 x 20 1.21	35 x 20 1.27	22 x 40 1.43	25 x 35 1.43	30 x 25 1.45		22 x 45 1.44	25 x 35 1.41	30 x 30 1.45	35 x 25 1.38	22 x 50 1.61	25 x 40 1.59	30 x 30 1.58	35 x 25 1.57
680	22 x 40 1.46	25 x 30 1.57	30 x 25 1.42	35 x 20 1.53	22 x 45 1.60	25 x 40 1.62	30 x 30 1.60		22 x 45 1.57	25 x 35 1.45	30 x 30 1.58	35 x 25 1.58		25 x 50 1.64	30 x 35 1.72	35 x 30 1.75
820	22 x 45 1.73	25 x 30 1.83	30 x 25 1.54	35 x 25 1.71	22 x 50 1.82	25 x 45 1.82	30 x 30 1.80	35 x 30 1.85		25 x 45 1.73	30 x 35 1.74	35 x 30 1.76		25 x 60 2.00	30 x 40 1.90	35 x 35 1.78
1,000	22 x 50 1.88	25 x 40 2.02	30 x 30 1.85	35 x 25 2.00		25 x 50 2.10	30 x 35 2.12	35 x 35 2.10		25 x 50 2.01	30 x 40 2.13	35 x 35 2.15			30 x 50 2.03	35 x 40 2.04
1,200		25 x 45 2.15	30 x 35 2.01	35 x 30 2.21			30 x 40 2.35	35 x 40 2.35		25 x 60 2.25	30 x 45 2.23	35 x 35 2.25			30 x 60 2.20	35 x 45 2.15
1,500		25 x 50 2.63	30 x 40 2.50	35 x 35 2.53				35 x 45 2.70			30 x 50 2.81	35 x 40 2.80				35 x 50 2.45
1,800			30 x 45 2.86	35 x 35 2.93				35 x 50 3.15			30 x 60 3.03	35 x 45 3.00				
2,200			30 x 60 3.34	35 x 45 3.28								35 x 60 3.20				

μF \ V	350				400				450				500			
	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35
47									22 x 25 0.35							
56									22 x 25 0.40	25 x 25 0.40			22 x 35 0.44	25 x 30 0.44	30 x 25 0.46	
68					22 x 25 0.47	25 x 20 0.42			22 x 30 0.46	25 x 25 0.46			22 x 35 0.43	25 x 35 0.47	30 x 25 0.49	
82	22 x 25 0.50				22 x 30 0.50	25 x 20 0.49			22 x 30 0.50	25 x 25 0.50	30 x 25 0.50		22 x 35 0.50	25 x 35 0.52	30 x 25 0.52	
100	22 x 30 0.60	25 x 25 0.60			22 x 35 0.61	25 x 25 0.61	30 x 20 0.56		22 x 35 0.58	25 x 30 0.58	30 x 25 0.60		22 x 40 0.55	25 x 40 0.60	30 x 25 0.61	
120	22 x 30 0.70	25 x 25 0.70			22 x 40 0.70	25 x 30 0.70	30 x 25 0.70	35 x 20 0.65	22 x 40 0.64	25 x 35 0.65	30 x 30 0.66	35 x 25 0.67	22 x 40 0.63	25 x 40 0.65	30 x 25 0.66	35 x 30 0.68
150	22 x 35 0.74	25 x 30 0.74	30 x 25 0.74		22 x 45 0.74	25 x 30 0.72	30 x 25 0.74	35 x 20 0.72	22 x 45 0.70	25 x 40 0.68	30 x 30 0.69	35 x 25 0.68		25 x 40 0.72	30 x 35 0.70	35 x 35 0.71
180	22 x 40 0.79	25 x 30 0.79	30 x 25 0.81		22 x 50 0.80	25 x 35 0.80	30 x 30 0.81	35 x 25 0.82		25 x 45 0.76	30 x 35 0.79	35 x 30 0.80		25 x 45 0.90	30 x 40 0.80	35 x 40 0.83
220	22 x 45 0.83	25 x 35 0.83	30 x 30 0.83	35 x 25 0.80	22 x 45 0.91	25 x 40 0.89	30 x 30 0.88	35 x 25 0.92		25 x 50 0.90	30 x 40 0.90	35 x 30 0.92		25 x 50 1.10	30 x 45 1.00	35 x 45 1.01
270	22 x 50 1.00	25 x 40 0.98	30 x 30 0.96	35 x 25 1.00		25 x 45 1.00	30 x 35 1.00	35 x 30 1.04		25 x 60 1.01	30 x 45 1.00	35 x 35 1.01				35 x 50 1.16
330		25 x 45 1.12	30 x 40 1.12	35 x 30 1.15		25 x 50 1.13	30 x 40 1.14	35 x 35 1.21			30 x 50 1.14	35 x 40 1.14				35 x 60 1.30
390		25 x 60 1.23	30 x 40 1.18	35 x 35 1.23		25 x 60 1.31	30 x 45 1.29	35 x 35 1.27			30 x 60 1.40	35 x 45 1.36				
470		25 x 60 1.50	30 x 45 1.47	35 x 40 1.45			30 x 50 1.43	35 x 40 1.42				35 x 50 1.52				
560			35 x 50 1.63	35 x 50 1.62			30 x 60 1.62	35 x 50 1.62				35 x 60 1.76				
680			35 x 60 1.98	35 x 60 1.98				35 x 60 1.99	Case size : ΦD x L(mm) Maximum permissible ripple current[A(rms) at 105℃, 120㎐]							