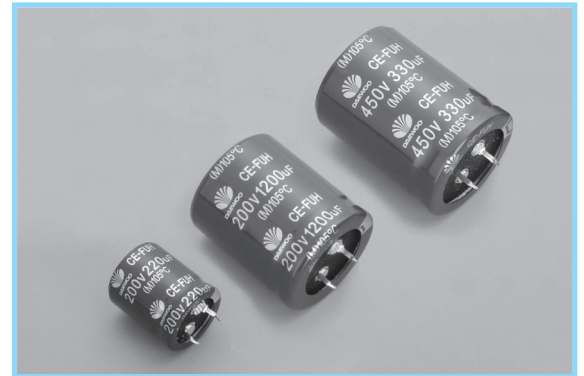


FUH SERIES

105°C, Standard, PCB mounting

Features

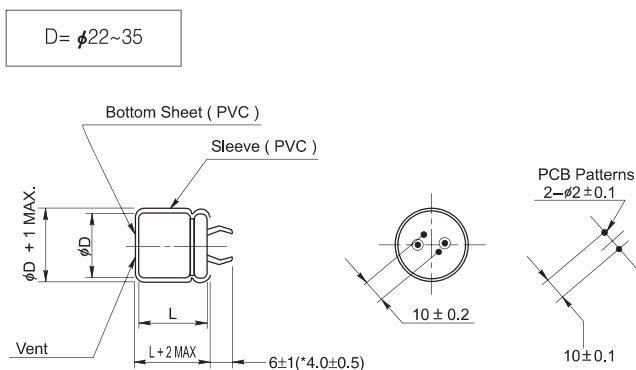
- 105°C Standard, snap-in terminal
- PCB Mounting
- High CV density
- Load life of 2000 hours at 105°C



Specifications

Item	Performance Characteristics					
Operating temperature range	-40°C ~ +105°C			-25°C ~ +105°C		
Rated working voltage range	10V ~ 250V			315V ~ 500V		
Nominal capacitance range	47µF ~ 47000µF, ±20% (at 20°C, 120Hz)					
D.C Leakage current (at 20°C)	The following specifications shall be satisfied when the rated voltage is applied for the required time. $I \leq 0.02CV$ or 2mA (5 min), whichever is less. Where I=Leakage current(µA) C=Nominal capacitance(µF) V=Rated voltage(V)					
Tan δ (max., at 20°C, 120Hz)	W.V(V)	10~25	35~50	63~100	160~250	315~500
	47~2200µF	-	0.20	0.15	0.1	0.20
	2700~6800µF	0.30	0.25	0.20	-	-
	8200µF	0.35	0.30	0.25	-	-
	10000~33000µF	0.60	0.45	0.30	-	-
	39000~47000µF	0.80	-	-	-	-
Characteristics at low temperature (max.) (impedance ratio at 120Hz)	W.V(V)	10~16	25~100	160~250	350~500	
	Z -25°C/Z20°C	4	3	3	8	
	Z -40°C/Z20°C	12	6	6	-	
Load life	After applying rated working voltage for 2000 hours at +85°C and then being stabilized at +20°C, 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 1000 hours at +85°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits.					
	Capacitance change	Within ±20% of the initial measured value				
	Tan δ	≤150% of the initial specified value				
	Leakage current	≤The initial specified value				

Dimensions



Ripple current coefficient

Frequency

W.V(V)	Freq(Hz)	50	120	1K	10K	100K
10 ~ 100		0.9	1.0	1.10	1.15	1.25
160 ~ 250		0.8	1.0	1.25	1.40	1.50
315 ~ 450		0.84	1.0	1.15	1.20	1.32

Temperature

Temperature	≤ 45°C	60°C	85°C	105°C
Factor	2.40	2.20	1.65	1.0

* Shorter terminal is available upon request

FUH SERIES

Standard Ratings of FUH Series

φ D x L(mm)

W.V(V) Cap(μF)	10(1A)				16(1C)				25(1E)				35(1V)			
	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35
3300													22x25			
													1.40			
3900													22x30	25x25		
													1.57	1.57		
4700									22x25				22x35	25x25		
									1.50				1.80	1.76		
5600									22x30	25x25			22x40	25x30	30x25	
									1.70	1.70			2.05	2.00	2.00	
6800					22x25				22x35	25x25			22x45	25x35	30x25	
					1.57				2.05	2.05			2.24	2.20	2.20	
8200					22x30	25x25			22x40	25x30	30x25		22x50	25x40	30x30	
					1.85	1.85			2.20	2.15	2.20		2.80	2.75	2.75	
10000	22x25				22x35	25x25			22x45	25x35	30x30			25x45	30x35	35x30
	1.55				1.95	1.95			2.55	2.60	2.60			2.91	2.87	2.87
12000	22x30	25x25			22x35	25x30	30x25		22x50	25x40	30x30			25x50	30x40	35x30
	1.77	1.77			2.30	2.30	2.30		2.70	2.70	2.70			3.20	3.20	3.20
15000	22x35	25x25			22x40	25x35	30x30			25x45	30x35	35x30			30x45	35x35
	1.96	1.90			2.65	2.65	2.65			2.95	2.95	2.95			3.65	3.65
18000	22x35	25x30	30x25		22x45	25x40	30x30			25x50	30x40	35x35			30x50	35x40
	2.21	2.21	2.21		2.75	2.75	2.75			3.20	3.20	3.20			4.30	4.30
22000	22x45	25x35	30x25			25x45	30x35	35x30				30x45	35x35			35x50
	2.35	2.40	2.35			2.82	2.82	2.82				3.64	3.64			4.95
27000		25x40	30x30			25x50	30x40	35x30					35x45			
		2.75	2.75			3.10	3.10	3.10					4.20			
33000		25x50	30x35	35x30			30x45	35x35					35x50			
		2.90	2.90	2.90			3.80	3.80					4.75			
39000			30x40	35x30			30x50	35x40								
			3.10	3.10			3.95	3.95								
47000			30x45	35x35				35x45								
			3.50	3.50				4.10								

W.V(V) Cap(μF)	50(1H)				63(1J)				80(1K)				100(2A)			
	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35
560													22x25			
													1.05			
680													22x30	25x25		
													1.15	1.15		
820									22x25				22x30	25x25		
									1.05				1.35	1.35		
1000									22x30	25x25			22x35	25x30	30x25	
									1.15	1.15			1.50	1.50	1.50	
1200					22x25				22x30	25x25			22x40	25x35	30x25	
					1.10				1.32	1.32			1.70	1.70	1.70	
1500					22x30	25x25			22x35	25x30	30x25		22x45	25x40	30x30	
					1.20	1.20			1.55	1.55	1.55		2.05	2.05	2.05	
1800	22x25				22x30	25x25			22x40	25x30	30x25			25x45	30x35	35x30
	1.20				1.45	1.45			1.80	1.80	1.80			2.50	2.50	2.50
2200	22x30	25x25			22x35	25x30	30x25		22x45	25x35	30x30			25x50	30x40	35x30
	1.35	1.35			1.65	1.65	1.65		2.03	2.03	2.03			2.70	2.70	2.70
2700	22x30	25x25			22x40	25x35	30x25			25x45	30x35	35x30			30x45	35x35
	1.60	1.60			1.83	1.83	1.83			2.25	2.25	2.25			2.85	2.85
3300	22x35	25x30	30x25		22x45	25x40	30x30			25x50	30x40	35x30			30x50	35x40
	1.85	1.85	1.85		2.07	2.10	2.10			2.40	2.40	2.40			3.00	3.00
3900	22x40	25x35	30x25			25x45	30x35	35x30				30x45	35x35			35x45
	1.95	1.95	1.95			2.50	2.50	2.50				2.70	2.70			3.20
4700	22x45	25x40	30x30			25x50	30x40	35x30				30x50	35x40			35x50
	2.25	2.30	2.30			2.79	2.79	2.79				3.10	3.10			3.40
5600	22x50	25x45	30x35	35x30			30x45	35x35					35x45			
	2.65	2.65	2.65	2.65			3.15	3.15					3.50			
6800		25x50	30x40	35x30			30x50	35x40					35x50			
		2.80	2.80	2.80			3.50	3.50					3.80			
8200			30x45	35x35				35x45								
			3.50	3.50				3.90								
10000			30x50	35x40				35x50								
			3.80	3.80				4.40								
12000			35x45													
			4.05													

Max. permissible ripple current [A(rms) at 105 C, 120Hz]

Case size [φ DxL(mm)]

FUH SERIES

Standard Ratings of FUH Series

φ D x L(mm)

W.V(V) Cap(μF)	160(2C)				180(2S)				200(2D)				250(2E)			
	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35
150													22x25			
													0.90			
180													22x30	25x25		
													1.00	1.00		
220					22x25				22x25				22x35	25x25		
					0.80				0.80				1.10	1.10		
270	22x25				22x30	25x25			22x30	25x25			22x35	25x30	30x25	
	0.90				0.95	0.95			1.00	1.00			1.20	1.20	1.20	
330	22x30	25x25			22x30	25x25			22x35	25x30	30x25		22x45	25x35	30x25	
	1.05	1.05			1.07	1.07			1.20	1.20	1.20		1.25	1.25	1.25	
390	22x35	25x25			22x35	25x30	30x25		22x40	25x30	30x25		22x50	25x40	30x30	
	1.22	1.20			1.22	1.25	1.22		1.32	1.30	1.30		1.50	1.50	1.50	
470	22x40	25x30	30x25		22x40	25x35	30x25		22x45	25x35	30x30		25x45	30x35	35x30	
	1.30	1.35	1.30		1.35	1.35	1.35		1.45	1.45	1.45		1.75	1.75	1.75	
560	22x45	25x35	30x25		22x45	25x35	30x30		22x50	25x40	30x30		25x50	30x40	35x30	
	1.45	1.45	1.45		1.45	1.45	1.45		1.55	1.55	1.55		2.00	2.00	2.00	
680	22x50	25x40	30x30		22x50	25x40	30x30		25x50	30x35	35x30			30x45	35x35	
	1.65	1.65	1.65		1.60	1.62	1.62		1.75	1.75	1.75		2.10	2.10		
820		25x45	30x35	35x30		25x50	30x35	35x30		30x40	35x35			30x50	35x40	
		1.95	1.95	2.00		1.80	1.80	1.85		2.10	2.10		2.25	2.25		
1000		25x50	30x40	35x30			30x40	35x35		30x45	35x35				35x45	
		2.10	2.15	2.20			2.10	2.10		2.25	2.25				2.40	
1200			30x45	35x35			30x45	35x40		30x50	35x40					
			2.35	2.30			2.35	2.35		2.65	2.65					
1500			30x50	35x40				35x45			35x50					
			2.70	2.65				2.70			3.10					
1800			35x45					35x50								
			3.10					3.15								

W.V(V) Cap(μF)	350(2V)				400(2G)				450(2W)				500(2H)			
	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35	φ22	φ25	φ30	φ35
47									22x25							
									0.37							
56									22x30	25x25						
									0.4	0.4						
68					22x25				22x35	25x30						
					0.52				0.52	0.52						
82	22x25				22x30	25x25			22x40	25x35	30x25					
	0.54				0.58	0.58			0.6	0.6	0.6					
100	22x30	25x25			22x35	25x30			22x45	25x35	30x30					
	0.63	0.63			0.65	0.65			0.65	0.65	0.65					
120	22x35	25x25			22x40	25x35	30x25		22x50	25x40	30x30		22x40	25x35	30x25	
	0.72	0.72			0.74	0.75	0.74		0.74	0.74	0.74		0.51	0.51	0.51	
150	22x40	25x30	30x25		22x50	25x40	30x30		25x45	30x35	35x30		25x40	30x35	35x30	
	0.79	0.79	0.8		0.82	0.82	0.82		0.82	0.82	0.82		1.35	1.35	1.35	
180	22x45	25x35	30x30		25x45	30x35	35x30		25x50	30x40	35x30		25x45	30x40	35x30	
	0.88	0.88	0.9		0.95	0.95	0.95		0.97	0.97	0.95		1.20	1.20	1.15	
220	22x50	25x40	30x30		25x50	30x40	35x35			30x45	35x35		25x50	30x45	35x40	
	0.97	0.97	0.95		1.05	1.05	1.05			1.08	1.08		1.30	1.30	1.30	
270		25x50	30x35	35x30			30x45	35x35		30x50	35x40				35x50	
		1.15	1.12	1.15			1.22	1.22		1.25	1.25				1.55	
330			30x45	35x35			30x50	35x40			35x45				35x60	
			1.23	1.23			1.4	1.4			1.42				1.80	
390			30x50	35x35				35x45			35x50					
			1.32	1.30				1.55			1.55					
470			35x40					35x50								
			1.40					1.63								
560			35x50													
			1.52													

Max. permissible ripple current [A(rms) at 105°C, 120Hz]

Case size

High Power

FUH SERIES

PERFORMANCE CURVES

- FUH 16V 33000 μ F
- - - FUH 100V 1200 μ F
- - - FUH 200V 1500 μ F

