

FUL SERIES

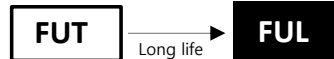
105°C, Long life, PCB terminal type

■ Features

- 105°C, Long life, Snap-in terminal
- PCB Mounting
- No derating at high temperature
- High and stable quality
- Load life of 5,000 hours at 105°C

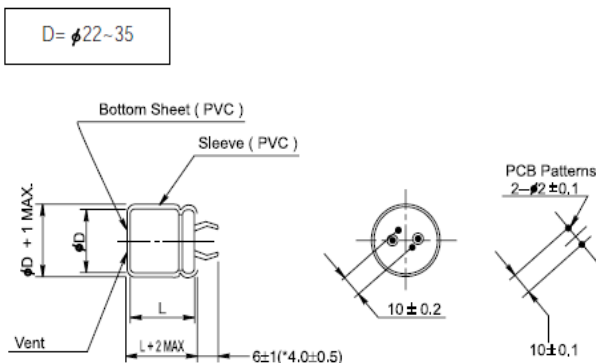


■ Specifications



Item	Performance Characteristics		
Operating temperature range	-40°C ~ +105°C		-25°C ~ +105°C
Rated working voltage range	160V ~ 250V		350V ~ 500V
Nominal capacitance range	47 μF ~ 1,200 μF , ±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 (5min), 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	160~250	350~500
	Tan δ	0.10	0.20
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	160~250	350~500
	Z-25°C/Z+20°C	3	8
	Z-40°C/Z+20°C	6	-
Load life	After applying rated working voltage for 5,000 hours at +105°C and then listed being stabilized at +20°C, capacitors shall meet following limits.		
	Capacitance change	Within ± 25% of the initial measured value	
	Tan δ	≤ 300% of the initial specified value	
	Leakage current	≤ The initial specified value	
Shelf life	After storage for 1,000hours at + 105°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	≤ 200% of the initial specified value	
	Leakage current	≤ The initial specified value	

■ Dimensions



* Shorter terminal is available upon request

■ Ripple current coefficient

• Frequency

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

FUL SERIES

■ Dimensions & Maximum permissible ripple current

μF \ V	160				200				250			
	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35	Φ22	Φ25	Φ30	Φ35
120					22 x 25 0.75				22 x 30 0.80	25 x 25 0.80		
150					22 x 30 0.80	25 x 25 0.80			22 x 35 0.90	25 x 30 0.90	30 x 25 0.90	
180	22 x 25 0.80				22 x 30 0.90	25 x 25 0.90			22 x 40 1.00	25 x 30 1.00	30 x 25 1.00	
220	22 x 30 1.00	25 x 25 1.00			22 x 35 1.00	25 x 30 1.00	30 x 25 1.00		22 x 45 1.10	25 x 35 1.10	30 x 30 1.10	
270	22 x 35 1.10	25 x 30 1.05	30 x 25 1.10		22 x 40 1.15	25 x 35 1.15	30 x 25 1.10		22 x 50 1.22	25 x 40 1.20	30 x 30 1.20	
330	22 x 40 1.20	25 x 30 1.15	30 x 25 1.20		22 x 50 1.30	25 x 40 1.25	30 x 30 1.25			25 x 45 1.37	30 x 35 1.35	35 x 30 1.35
390	22 x 45 1.33	25 x 35 1.30	30 x 30 1.30			25 x 45 1.40	30 x 35 1.40	35 x 25 1.40		25 x 50 1.53	30 x 40 1.50	35 x 30 1.50
470	22 x 50 1.47	25 x 35 1.45	30 x 30 1.40			25 x 50 1.62	30 x 40 1.60	35 x 30 1.60			30 x 45 1.70	35 x 35 1.70
560		25 x 40 1.60	30 x 35 1.60	35 x 30 1.60			30 x 45 1.80	35 x 35 1.80			30 x 50 2.10	35 x 40 2.10
680		25 x 45 1.80	30 x 40 1.80	35 x 30 1.78			30 x 50 2.10	35 x 40 2.10				35 x 45 2.40
820			30 x 45 2.15	35 x 35 2.15				35 x 45 2.40				35 x 50 2.60
1,000			30 x 50 2.55	35 x 40 2.55				35 x 50 2.80				
1,200				35 x 45 2.90								

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 0.30				22 x 35 0.32			
56					22 x 25 0.32				22 x 30 0.36				22 x 35 0.34	25 x 30 0.32	30 x 30 0.35	
68	22 x 25 0.37				22 x 30 0.42	25 x 25 0.40			22 x 35 0.44	25 x 30 0.45			22 x 40 0.41	25 x 35 0.43	30 x 30 0.40	
82	22 x 30 0.49				22 x 35 0.45	25 x 30 0.45			22 x 35 0.50	25 x 30 0.50			22 x 45 0.50	25 x 35 0.50	30 x 35 0.48	
100	22 x 35 0.52	25 x 25 0.51			22 x 40 0.48	25 x 30 0.52	30 x 25 0.52		22 x 40 0.53	25 x 35 0.52	30 x 30 0.53			25 x 40 0.53	30 x 35 0.54	
120	22 x 40 0.56	25 x 30 0.55	30 x 25 0.56		22 x 40 0.55	25 x 35 0.56	30 x 30 0.56	35 x 25 0.59	22 x 45 0.55	25 x 35 0.56	30 x 30 0.58	35 x 30 0.59		25 x 45 0.58	30 x 40 0.58	35 x 30 0.59
150	22 x 45 0.62	25 x 35 0.60	30 x 30 0.60	35 x 25 0.65	22 x 50 0.60	25 x 40 0.62	30 x 30 0.65	35 x 30 0.65	22 x 50 0.63	25 x 40 0.63	30 x 35 0.67	35 x 30 0.68			30 x 45 0.64	35 x 30 0.68
180	22 x 50 0.71	25 x 40 0.70	30 x 30 0.70	35 x 30 0.70		25 x 45 0.75	30 x 35 0.74	35 x 30 0.76		25 x 45 0.72	30 x 35 0.76	35 x 35 0.77			30 x 50 0.80	35 x 35 0.81
220		25 x 50 0.91	30 x 35 0.80	35 x 30 0.81		25 x 50 0.82	30 x 40 0.80	35 x 35 0.86		25 x 50 0.80	30 x 40 0.84	35 x 35 0.86			30 x 60 0.90	35 x 40 0.86
270			30 x 40 0.92	35 x 35 0.98			30 x 50 1.00	35 x 40 1.09			30 x 45 1.10	35 x 40 1.11				35 x 50 1.30
330			30 x 50 1.07	35 x 40 1.07				35 x 45 1.12			30 x 50 1.16	35 x 45 1.17				35 x 60 1.45
390				35 x 45 1.14				35 x 50 1.20				35 x 50 1.30				
470				35 x 50 1.38	Case size : ΦD x L(mm) Maximum permissible ripple current[A(rms) at 105°C, 120Hz]											