

# UPG Series

+105°C, High Voltage, Low ESR

## Features

- High Voltage, Low ESR
- Wide Temperature Range
- RoHS Compliant

## Applications

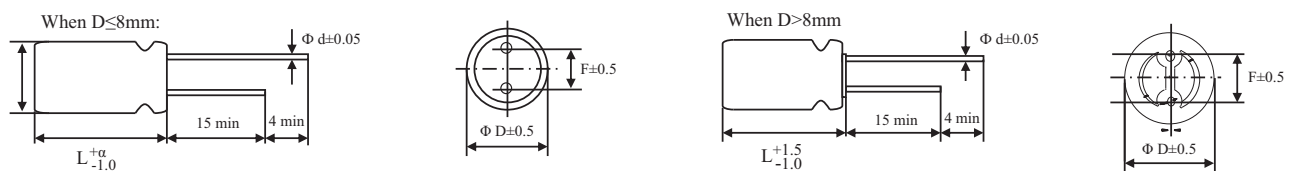
- Suitable for DC-DC Converters, Voltage Regulators, Decoupling Applications for Computer Motherboards, etc.

## Specifications



Item	Performance Characteristics				
Operating Temperature Range	-55 to +105°C				
Rated Working Voltage Range	50VDC to 200VDC				
Surge Voltage, SV	SV=WVx1.15VDC (Normal temperature)				
Nominal Capacitance Range	1 to 120μF (120Hz, +20°C)				
Capacitance Tolerance	±20% (120Hz, +20°C)				
tan δ	0.12 (120Hz, +20°C)				
Leakage Current, Lc	I≤0.2CV or 280 (μA) whichever is greater measured, after 2 minutes application of rated working voltage at +20°C				
Temperature Characteristics, Impedance Ratio	At -55°C 100kHz (Low temperature)			Z/Z20°C≤1.25	
	At +105°C 100kHz (High temperature)			Z/Z20°C≤1.25	
Frequency Coefficient for Allowable Ripple Current	Frequency	120Hz≤f<1kHz	1kHz≤f<10kHz	10kHz≤f<100kHz	100kHz≤f<500kHz
	Coefficient	0.05	0.30	0.70	1.00
Endurance	Test conditions +105°C, 2,000 hours Rated voltage applied	ΔC/C	Within ±20% of the initial measured value		
		tan δ	≤150% of the initial specified value		
		ESR	≤150% of the initial specified value		
		Lc	≤The initial specified value		
Damp Heat Test (Steady State)	Test conditions +60°C, 90% to 95% RH 1,000 hours No applied voltage	ΔC/C	Within ±20% of the initial measured value		
		tan δ	≤150% of the initial specified value		
		ESR	≤150% of the initial specified value		
		Lc	≤The initial specified value		
Surge Voltage Test	At normal temperature, charge at surge voltage for 30 sec. and discharge via a 1kΩ protective resistor for 330 sec. Repeat for 1,000 cycles.	ΔC/C	Within ±20% of the initial measured value		
		tan δ	≤150% of the initial specified value		
		ESR	≤150% of the initial specified value		
		Lc	≤The initial specified value		
Others	JIS-C-5101-4				

## Dimensions



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## Size List

RV: Rated Voltage						(Unit: mm)				
RV	Code	50 (1H)	63 (1J)	100 (2A)	200 (2D)	Size Code	E08	F08	F1A	G1B
1	105				E08	ΦDxL	6.3 x 8	8 x 8	8 x 11.5	10 x 12.5
3.3	335				F08	F±0.5	2.5	3.5	3.5	5.0
4.7	475				F1A	Φd	0.6	0.6	0.6	0.6
6.8	685			F1A	G1B	α	1.0		1.5	
8.2	825				G1B					
10	106			F1A						
18	186			G1B						
22	226	F08	F08							
33	336	F08	F08							
47	476	F1A	G1B							
56	566	G1B	G1B							
68	686	G1B								
100	107	G1B								
120	127	G1B								

## Characteristics List

Rated Vol. (V)	Rated Cap. (μF)	Case Size ΦD x L (mm)	Size Code	Part Number	ESR (mΩ, max/ 20°C, 100kHz)	Rated Ripple (mArms/ 105°C, 100kHz)	DF (%max)	Leakage Current (μA/2 mins)
50	22	8 x 8	F08	UPG226M1HF08	45	1300	12	280
50	33	8 x 8	F08	UPG336M1HF08	45	1300	12	330
50	47	8 x 11.5	F1A	UPG476M1HF1A	42	1500	12	470
50	56	10 x 12.5	G1B	UPG566M1HG1B	38	2000	12	560
50	68	10 x 12.5	G1B	UPG686M1HG1B	35	2100	12	680
50	100	10 x 12.5	G1B	UPG107M1HG1B	35	2100	12	1000
50	120	10 x 12.5	G1B	UPG127M1HG1B	35	2100	12	1200
63	22	8 x 8	F08	UPG226M1JF08	65	1100	12	280
63	33	8 x 8	F08	UPG336M1JF08	65	1100	12	416
63	47	10 x 12.5	G1B	UPG476M1JG1B	60	1300	12	592
63	56	10 x 12.5	G1B	UPG566M1JG1B	55	1500	12	706
100	6.8	8 x 11.5	F1A	UPG685M2AF1A	45	1600	12	280
100	10	8 x 11.5	F1A	UPG106M2AF1A	42	1800	12	280
100	18	10 x 12.5	G1B	UPG186M2AG1B	38	2200	12	300
200	1	6.3 x 8	E08	UPG105M2DE08	2000	150	12	280
200	3.3	8 x 8	F08	UPG335M2DF08	500	300	12	280
200	4.7	8 x 11.5	F1A	UPG475M2DF1A	400	350	12	280
200	6.8	10 x 12.5	G1B	UPG685M2DG1B	300	500	12	280
200	8.2	10 x 12.5	G1B	UPG825M2DG1B	300	595	12	328

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.