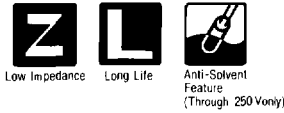
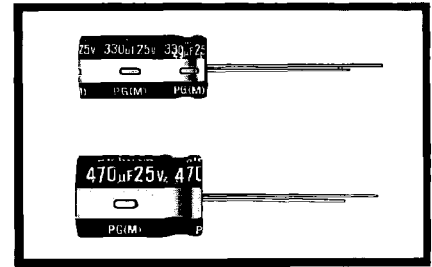
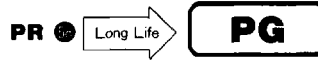


ALUMINUM ELECTROLYTIC CAPACITORS

PG Long Life, High Reliability series



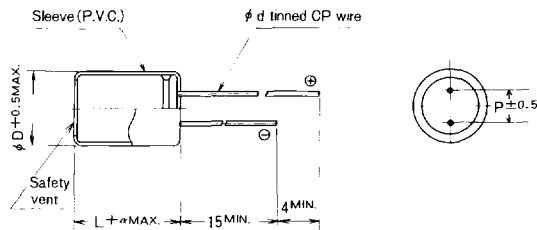
- Extended load life up to 7000 hours at +105°C.



Specifications

Item	Performance Characteristics	
Operating Temperature Range	-55~+105°C (~100V), -40~+105°C (160~400V), -25~+105°C (450V)	
Voltage Range	10~450V	
Capacitance Range	1~4700µF	
Capacitance Tolerance	±20% at 120 Hz, 20°C	
Leakage Current	Rated voltage (V)	10~100
		160~450
	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3(µA), whichever is greater.	
	After 2 minute's application of rated voltage. CV ≤ 1000: I = 0.1CV + 40(µA) or less After 2 minute's application of rated voltage. CV > 1000: I = 0.04CV + 100(µA) or less	
tan δ	For capacitance of more than 1000 µF, add 0.02 for every increase of 1000 µF	
	Measurement frequency: 120 Hz, Temperature: 20°C	
Stability at Low Temperature	Measurement frequency: 120 Hz	
	Rated voltage (V)	10 16 25 35 50 63 100 160~350 400~450
Load Life	After 7000 hours' application of rated voltage at 105°C, capacitors meet the characteristics requirements listed at right. (In case of ϕD ≤ 10, after 5000 hours' application)	
	Leakage current	Initial specified value or less
	Capacitance change	Within ±30% of initial value
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed at right.	
	Leakage current	Initial specified value or less
	Capacitance change	Within ±15% of initial value
Marking	Printed with white color letter on dark brown sleeve according to JIS C-5141.	
Applicable Standards	JIS C-5141 and JIS C-5102.	

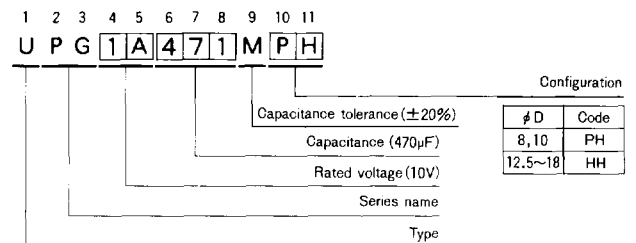
Radial Lead Type



ϕD	8	10	12.5	16	18
P	3.5	5.0	5.0	7.5	7.5
ϕd	0.8	0.6	0.6	0.8	0.8

α	(L < 20) 1.5
	(L ≥ 20) 2.0

Type numbering system (Example: 10V 470µF)



ϕD	Code
8, 10	PH
12.5~18	HH

• Dimension table in next page.

■ Dimensions

Cap. (μF)	Code	Item	10 (1A)			16 (1C)			25 (1E)		
			Case size	Impedance	Allowable ripple	Case size	Impedance	Allowable ripple	Case size	Impedance	Allowable ripple
47	470										
100	101		8×11.5	1.00	170	8×11.5	1.00	170	10×12.5	0.60	250
220	221		10×12.5	0.60	250	10×12.5	0.60	250	10×16	0.40	370
330	331		10×16	0.40	370	10×16	0.40	370	10×20	0.28	500
470	471		10×16	0.40	370	10×20	0.28	500	12.5×20	0.16	750
1000	102		12.5×20	0.16	750	12.5×25	0.14	800	16×25	0.08	1250
2200	222		16×25	0.08	1250	16×25	0.08	1250	16×35.5	0.06	1550
3300	332		16×31.5	0.07	1400	16×35.5	0.06	1550	18×40	0.04	1800
4700	472		16×35.5	0.06	1550	18×35.5	0.05	1700			

Cap. (μF)	Code	Item	35 (1V)			50 (1H)			63 (1J)		
			Case size	Impedance	Allowable ripple	Case size	Impedance	Allowable ripple	Case size	Impedance	Allowable ripple
4.7	4R7					8×11.5	1.00	170	8×11.5	1.00	170
10	100					8×11.5	1.00	170	8×11.5	1.00	170
22	220					8×11.5	1.00	170	8×11.5	1.00	170
33	330		8×11.5	1.00	170	10×12.5	0.60	250	10×12.5	0.60	250
47	470		8×11.5	1.00	170	10×12.5	0.60	250	10×12.5	0.60	250
100	101		10×12.5	0.60	250	10×16	0.40	370	10×20	0.28	500
220	221		10×20	0.28	500	12.5×20	0.16	750	12.5×20	0.16	750
330	331		12.5×20	0.16	750	12.5×20	0.16	750	12.5×20	0.16	750
470	471		12.5×20	0.16	750	16×25	0.08	1250	16×25	0.08	1250
1000	102		16×25	0.08	1250	16×31.5	0.07	1400	18×35.5	0.05	1700
2200	222		18×35.5	0.05	1700						

Cap. (μF)	Code	Item	100 (2A)		
			Case size	Impedance	Allowable ripple
4.7	4R7		8×11.5	1.50	140
10	100		8×11.5	1.50	140
22	220		10×12.5	0.90	200
33	330		10×16	0.60	300
47	470		10×20	0.42	400
100	101		12.5×20	0.24	600
220	221		16×25	0.12	1000
330	331		16×31.5	0.10	1150
470	471		18×35.5	0.07	1400

Case size : DXL (mm)
 Impedance : (Ω) MAX. at 20°C 100kHz
 Allowable ripple : (mA) at 105°C 100kHz
 Ratings of 0.47μF~3.3μF at 50V~100V
 are available upon request.

Cap. (μF)	Code	160		200		250		315		350		400		450	
		2C		2D		2E		2F		2V		2G		2W	
1	010	8×11.5	19	8×11.5	19	8×11.5	19	8×11.5	19	10×12.5	21	10×12.5	17	10×16	17
2.2	2R2	8×11.5	30	8×11.5	30	10×12.5	32	10×12.5	32	10×16	34	10×16	28	10×20	28
3.3	3R3	10×12.5	50	10×12.5	50	10×16	52	10×16	52	10×20	54	10×20	47	12.5×20	48
4.7	4R7	10×12.5	57	10×16	60	10×16	60	10×20	65	10×20	65	12.5×20	55	12.5×25	55
10	100	10×16	90	10×20	95	12.5×20	98	12.5×20	98	12.5×25	100	12.5×25	85	16×25	90
22	220	12.5×20	140	12.5×25	145	16×25	150	16×25	150	16×25	150	16×31.5	130	16×35.5	135
33	330	12.5×25	175	16×25	180	16×25	180	16×31.5	185	16×35.5	190	18×35.5	170	18×40	170
47	470	16×25	220	16×25	220	16×31.5	225	18×35.5	235	18×40	240				
100	101	16×35.5	330	18×40	345	18×40	345								Allowable ripple

Allowable Ripple (mA rms) at 105°C 120Hz

● Frequency coefficient of allowable ripple current

V	Cap. (μF)	Frequency				
		50Hz	120Hz	300Hz	1kHz	10kHz~
10~100	~4.7	—	0.15	0.33	0.55	1
	10~22	0.17	0.30	0.45	0.64	1
	33~47	0.28	0.42	0.55	0.70	1
	100~330	0.43	0.55	0.66	0.80	1
	470~4700	0.59	0.70	0.80	0.90	1
160~450	1~100	0.80	1	1.25	1.40	1.60

● Allowable ripple current vs. Ambient temperature

V	Ambient temp		
	~+65°C	+85°C	+105°C
10~100	2.2	1.7	1
160~450	1.78	1.4	1