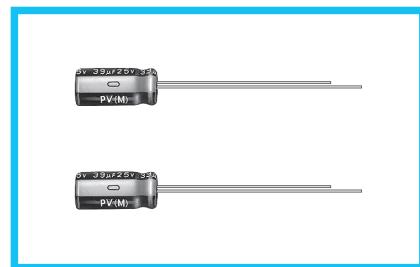
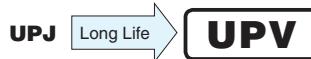




Miniature Sized, Low Impedance,
High Reliability



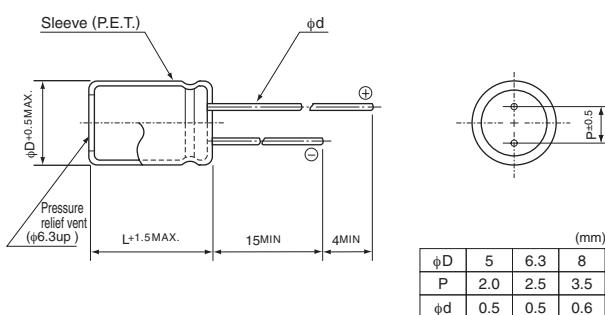
- Miniature sized low impedance series withstands 5000 hours load life at +105°C.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).



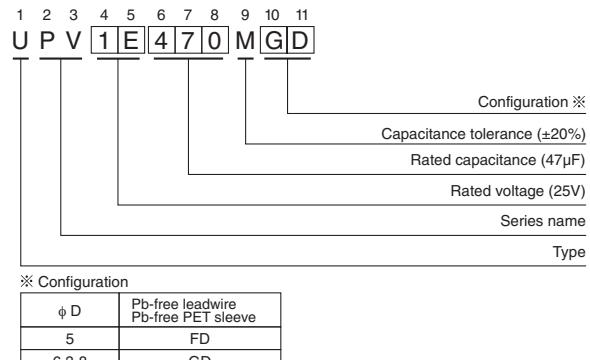
■ Specifications

Item	Performance Characteristics							
Category Temperature Range	-55 to +105°C							
Rated Voltage Range	6.3 to 50V							
Rated Capacitance Range	1.5 to 390μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.							
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C							
	Rated voltage (V)	6.3	10	16	25	35	50	
	tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12	0.10	
Stability at Low Temperature	Measurement frequency : 120Hz							
	Rated voltage (V)	6.3	10	16	25	35	50	
	Impedance ratio (MAX.)	Z-55°C / Z+20°C	5	5	4	3	3	2
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours at 105°C.				Capacitance change	Within ±30% of the initial capacitance value		
					tan δ	300% or less than the initial specified value		
					Leakage current	Less than or equal to the initial specified value		
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed at right.				Capacitance change	Within ±20% of the initial capacitance value		
					tan δ	150% or less than the initial specified value		
					Leakage current	Less than or equal to the initial specified value		
Marking	Printed with white color letter on dark brown sleeve.							

■ Radial Lead Type

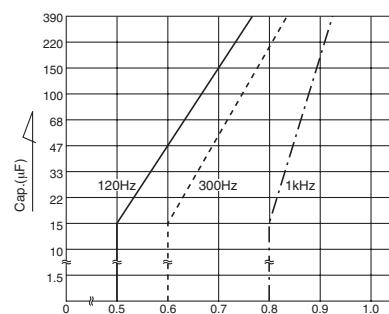


Type numbering system (Example : 25V 47μF)



- Please refer to page 20 about the end seal configuration.

- Frequency coefficient of rated ripple current (10kHz to 200kHz=1)



Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

- Dimension table in next page.

UPV

■ Dimensions

Cap.(μ F)	Code	V(Code)	6.3 (0J)			10 (1A)			16 (1C)			25 (1E)			
			Item	Case size $\phi D \times L$ (mm)	Impedance (Ω) MAX. 20°C/100kHz	Rated ripple (mA rms) 105°C/100kHz	Case size $\phi D \times L$ (mm)	Impedance (Ω) MAX. 20°C/100kHz	Rated ripple (mA rms) 105°C/100kHz	Case size $\phi D \times L$ (mm)	Impedance (Ω) MAX. 20°C/100kHz	Rated ripple (mA rms) 105°C/100kHz	Case size $\phi D \times L$ (mm)	Impedance (Ω) MAX. 20°C/100kHz	Rated ripple (mA rms) 105°C/100kHz
33	330												5 × 11	1.40	155
39	390												5 × 11	1.10	175
47	470								5 × 11	1.40	155	6.3 × 11	0.94	210	
56	560								5 × 11	1.10	175	6.3 × 11	0.75	235	
68	680				5 × 11	1.40	155	6.3 × 11	0.85	220	6.3 × 11	0.61	260		
82	820				5 × 11	1.10	175	6.3 × 11	0.71	240	6.3 × 11	0.51	285		
100	101	5 × 11	1.50	150	6.3 × 11	0.94	210	6.3 × 11	0.60	265	8 × 11.5	0.41	370		
120	121	5 × 11	1.10	175	6.3 × 11	0.75	235	6.3 × 11	0.49	290	8 × 11.5	0.34	405		
150	151	6.3 × 11	0.83	225	6.3 × 11	0.60	265	8 × 11.5	0.39	375	8 × 11.5	0.27	460		
180	181	6.3 × 11	0.66	250	6.3 × 11	0.49	290	8 × 11.5	0.34	405					
220	221	6.3 × 11	0.51	285	8 × 11.5	0.41	370	8 × 11.5	0.27	460					
270	271	8 × 11.5	0.41	370	8 × 11.5	0.34	405								
330	331	8 × 11.5	0.34	405	8 × 11.5	0.27	460								
390	391	8 × 11.5	0.29	445											

Cap.(μ F)	Code	V(Code)	35 (1V)			50 (1H)			
			Item	Case size $\phi D \times L$ (mm)	Impedance (Ω) MAX. 20°C/100kHz	Rated ripple (mA rms) 105°C/100kHz	Case size $\phi D \times L$ (mm)	Impedance (Ω) MAX. 20°C/100kHz	Rated ripple (mA rms) 105°C/100kHz
1.5	1R5						5 × 11	11.0	45
2.2	2R2						5 × 11	7.00	54
3.3	3R3						5 × 11	4.60	66
4.7	4R7						5 × 11	3.10	81
6.8	6R8						5 × 11	2.50	91
10	100						5 × 11	2.00	115
12	120						5 × 11	1.70	125
15	150						5 × 11	1.30	145
18	180						5 × 11	1.10	155
22	220	5 × 11	1.30	160	6.3 × 11	0.91			
27	270	5 × 11	1.00	180	6.3 × 11	0.74			
33	330	6.3 × 11	0.83	225	6.3 × 11	0.60			
39	390	6.3 × 11	0.70	245	6.3 × 11	0.50			
47	470	6.3 × 11	0.58	270	8 × 11.5	0.42			
56	560	6.3 × 11	0.48	295	8 × 11.5	0.35			
68	680	8 × 11.5	0.41	370	8 × 11.5	0.28			
82	820	8 × 11.5	0.32	415					
100	101	8 × 11.5	0.27	460					