

UPV

Miniature Sized, Low Impedance,
High Reliability



Low Impedance



Long Life



Anti-Solvent
Feature

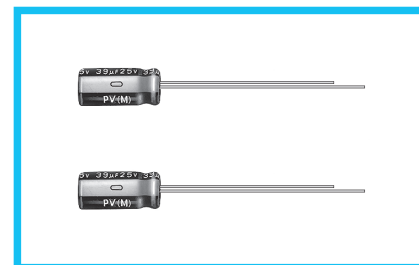
- Miniature sized low impedance series withstanding 5000 hours load life at +105°C.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).

Valued marked with an ※ in the dimension table are scheduled to be discontinued and are not recommended for new designs.

UPJ

Long Life

UPV

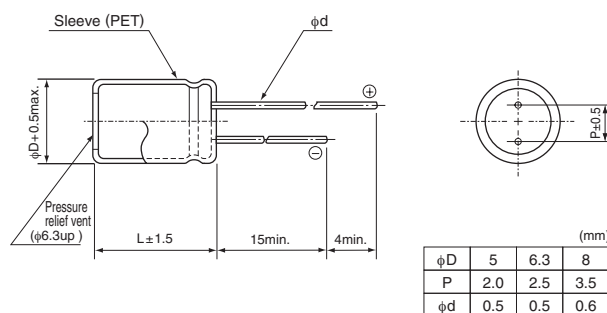


Specifications

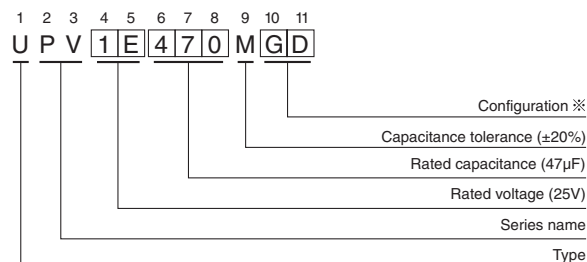
Item	Performance Characteristics							
Category Temperature Range	-55 to +105°C							
Rated Voltage Range	6.3 to 50V							
Rated Capacitance Range	1.5 to 390μF							
Capacitance Tolerance	± 20% at 120Hz, 20°C							
Leakage Current ※	After 1 minute's application of rated voltage at 20°C, leakage 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.							

※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

Radial Lead Type



Type numbering system (Example : 25V 47μF)

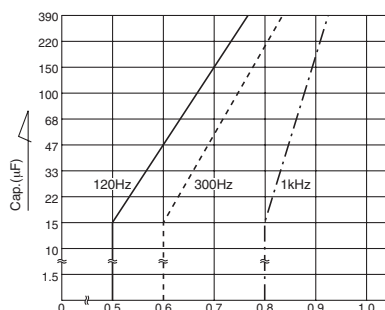


※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
5	FD
6.3, 8	GD

- Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

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



• Dimension table in next page.

UPV

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D $\times$ L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 1 minute)	Impedance (Ω) max. (20°C/100kHz)	Rated Ripple (mArms) (105°C/100kHz)	Part Number
6.3 (0J)	100	5 $\times$ 11	0.22	18.9	1.50	150	※UPV0J101MFD
	120	5 $\times$ 11	0.22	22.68	1.10	175	※UPV0J121MFD
	150	6.3 $\times$ 11	0.22	28.35	0.83	225	※UPV0J151MGD
	180	6.3 $\times$ 11	0.22	34.02	0.66	250	※UPV0J181MGD
	220	6.3 $\times$ 11	0.22	41.58	0.51	285	※UPV0J221MGD
	270	8 $\times$ 11.5	0.22	51.03	0.41	370	UPV0J271MGD
	330	8 $\times$ 11.5	0.22	62.37	0.34	405	UPV0J331MGD
	390	8 $\times$ 11.5	0.22	73.71	0.29	445	UPV0J391MGD
10 (1A)	68	5 $\times$ 11	0.19	20.4	1.40	155	※UPV1A680MFD
	82	5 $\times$ 11	0.19	24.6	1.10	175	※UPV1A820MFD
	100	6.3 $\times$ 11	0.19	30	0.94	210	※UPV1A101MGD
	120	6.3 $\times$ 11	0.19	36	0.75	235	※UPV1A121MGD
	150	6.3 $\times$ 11	0.19	45	0.60	265	※UPV1A151MGD
	180	6.3 $\times$ 11	0.19	54	0.49	290	※UPV1A181MGD
	220	8 $\times$ 11.5	0.19	66	0.41	370	UPV1A221MGD
	270	8 $\times$ 11.5	0.19	81	0.34	405	UPV1A271MGD
	330	8 $\times$ 11.5	0.19	99	0.27	460	UPV1A331MGD
16 (1C)	47	5 $\times$ 11	0.16	22.56	1.40	155	※UPV1C470MFD
	56	5 $\times$ 11	0.16	26.88	1.10	175	※UPV1C560MFD
	68	6.3 $\times$ 11	0.16	32.64	0.85	220	※UPV1C680MGD
	82	6.3 $\times$ 11	0.16	39.36	0.71	240	※UPV1C820MGD
	100	6.3 $\times$ 11	0.16	48	0.60	265	※UPV1C101MGD
	120	6.3 $\times$ 11	0.16	57.6	0.49	290	※UPV1C121MGD
	150	8 $\times$ 11.5	0.16	72	0.39	375	UPV1C151MGD
	180	8 $\times$ 11.5	0.16	86.4	0.34	405	UPV1C181MGD
	220	8 $\times$ 11.5	0.16	105.6	0.27	460	UPV1C221MGD
25 (1E)	33	5 $\times$ 11	0.14	24.75	1.40	155	※UPV1E330MFD
	39	5 $\times$ 11	0.14	29.25	1.10	175	※UPV1E390MFD
	47	6.3 $\times$ 11	0.14	35.25	0.94	210	※UPV1E470MGD
	56	6.3 $\times$ 11	0.14	42	0.75	235	※UPV1E560MGD
	68	6.3 $\times$ 11	0.14	51	0.61	260	※UPV1E680MGD
	82	6.3 $\times$ 11	0.14	61.5	0.51	285	※UPV1E820MGD
	100	8 $\times$ 11.5	0.14	75	0.41	370	UPV1E101MGD
	120	8 $\times$ 11.5	0.14	90	0.34	405	UPV1E121MGD
	150	8 $\times$ 11.5	0.14	112.5	0.27	460	UPV1E151MGD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.

UPV

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D $\times$ L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 1 minute)	Impedance (Ω) max. (20°C/100kHz)	Rated Ripple (mA _{rms}) (105°C/100kHz)	Part Number
35 (1V)	22	5 $\times$ 11	0.12	23.1	1.30	160	※UPV1V220MFD
	27	5 $\times$ 11	0.12	28.35	1.00	180	※UPV1V270MFD
	33	6.3 $\times$ 11	0.12	34.65	0.83	225	※UPV1V330MGD
	39	6.3 $\times$ 11	0.12	40.95	0.70	245	※UPV1V390MGD
	47	6.3 $\times$ 11	0.12	49.35	0.58	270	※UPV1V470MGD
	56	6.3 $\times$ 11	0.12	58.8	0.48	295	※UPV1V560MGD
	68	8 $\times$ 11.5	0.12	71.4	0.41	370	UPV1V680MGD
	82	8 $\times$ 11.5	0.12	86.1	0.32	415	UPV1V820MGD
	100	8 $\times$ 11.5	0.12	105	0.27	460	UPV1V101MGD
50 (1H)	1.5	5 $\times$ 11	0.10	4	11.00	45	※UPV1H1R5MFD
	2.2	5 $\times$ 11	0.10	4	7.00	54	※UPV1H2R2MFD
	3.3	5 $\times$ 11	0.10	4.95	4.60	66	※UPV1H3R3MFD
	4.7	5 $\times$ 11	0.10	7.05	3.10	81	※UPV1H4R7MFD
	6.8	5 $\times$ 11	0.10	10.2	2.50	91	※UPV1H6R8MFD
	10	5 $\times$ 11	0.10	15	2.00	115	※UPV1H100MFD
	12	5 $\times$ 11	0.10	18	1.70	125	※UPV1H120MFD
	15	5 $\times$ 11	0.10	22.5	1.30	145	※UPV1H150MFD
	18	5 $\times$ 11	0.10	27	1.10	155	※UPV1H180MFD
	22	6.3 $\times$ 11	0.10	33	0.91	195	※UPV1H220MGD
	27	6.3 $\times$ 11	0.10	40.5	0.74	215	※UPV1H270MGD
	33	6.3 $\times$ 11	0.10	49.5	0.60	240	※UPV1H330MGD
	39	6.3 $\times$ 11	0.10	58.5	0.50	260	※UPV1H390MGD
	47	8 $\times$ 11.5	0.10	70.5	0.42	330	UPV1H470MGD
	56	8 $\times$ 11.5	0.10	84	0.35	360	UPV1H560MGD
	68	8 $\times$ 11.5	0.10	102	0.28	410	UPV1H680MGD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.

- For formed lead or taped product specifications and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.