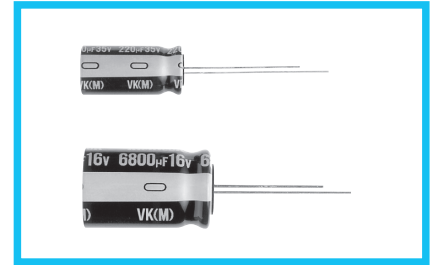
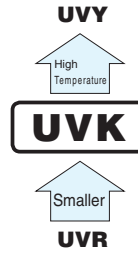


# UVK

Miniature Sized



- One rank smaller case sizes than UVR.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

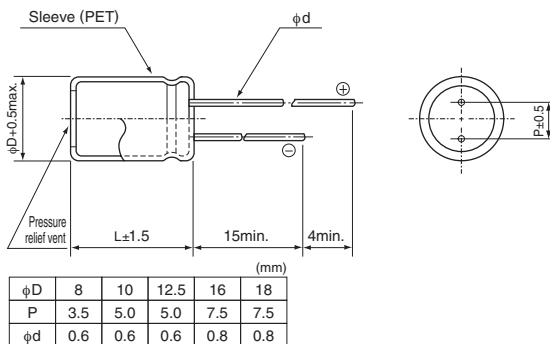


## Specifications

Item	Performance Characteristics	
Category Temperature Range	-40 to +85°C (6.3V to 400V), -25°C to +85°C (450V)	
Rated Voltage Range	6.3 to 450V	
Rated Capacitance Range	22 to 22000µF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Leakage Current ※	Rated voltage (V)	6.3 to 100V
		160 to 450V
Tangent of loss angle (tan δ)	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV(µA). After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV(µA).	
	After 1 minute's application of rated voltage at 20°C, CV ≤ 1000 : I = 0.1CV+40µA or less CV>1000 : I = 0.04CV+100 (µA) or less	
Stability at Low Temperature	For capacitance of more than 1000µF, add 0.02 for every increase of 1000µF. Measurement frequency : 120Hz at 20°C	
	Rated voltage (V)	6.3 10 16 25 35 50 63 100 160 to 250 350 to 450
Endurance	tan δ (max.)	0.28 0.24 0.20 0.16 0.14 0.12 0.10 0.08 0.20 0.25
	Impedance ratio (max.)	Z(-25°C) / Z(+20°C) 5 4 3 2 2 2 3 4 6 15 Z(-40°C) / Z(+20°C) 12 10 8 5 4 3 4 8 10 —
Shelf Life	Capacitance change	Within ±20% of the initial capacitance value
	tan δ	200% or less than the initial specified value
Marking	Leakage current	Less than or equal to the initial specified value
	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.	
After storing the capacitors under no load at 85°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 above.		
Printed with white color letter on black sleeve.		

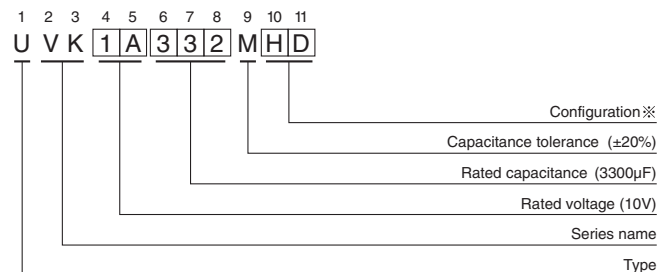
※ I : Leakage Current (µA), C : Rated Capacitance (µF), V : Rated Voltage (V)

## Radial Lead Type



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

## Type numbering system (Example : 10V 3300µF)



※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
8 · 10	PD
12.5 to 18	HD

## Frequency coefficient of rated ripple current

V	Cap.(µF)	Frequency				
		50Hz	120Hz	300Hz	1 kHz	10kHz or more
6.3 to 100	33 to 68	0.75	1.00	1.35	1.57	2.00
	100 to 470	0.80	1.00	1.23	1.34	1.50
	1000 to 22000	0.85	1.00	1.10	1.13	1.15
160 to 450	2.2 to 220	0.80	1.00	1.25	1.40	1.60
	330 to 470	0.90	1.00	1.10	1.13	1.15

● Dimension table in next page.

UVK

## ■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance ( $\mu$ F)	Case Size $\phi$ D $\times$ L (mm)	tan $\delta$	Leakage Current ( $\mu$ A)		Rated Ripple (mArms) (85°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
6.3 (0J)	1000	8 $\times$ 11.5	0.28	189	63	540	UVK0J102MPD
	2200	10 $\times$ 16	0.30	415.8	138.6	890	UVK0J222MPD
	3300	10 $\times$ 20	0.32	623.7	207.9	1190	UVK0J332MPD
	4700	12.5 $\times$ 20	0.34	888.3	296.1	1550	UVK0J472MHD
	6800	12.5 $\times$ 25	0.38	1285.2	428.4	1920	UVK0J682MHD
	10000	16 $\times$ 25	0.46	1890	630	2350	UVK0J103MHD
	15000	16 $\times$ 30.5	0.56	2835	945	2550	UVK0J153MHD
	22000	18 $\times$ 35.5	0.70	4158	1386	3200	UVK0J223MHD
10 (1A)	1000	10 $\times$ 12.5	0.24	300	100	650	UVK1A102MPD
	2200	10 $\times$ 16	0.26	660	220	990	UVK1A222MPD
	3300	12.5 $\times$ 20	0.28	990	330	1450	UVK1A332MHD
	4700	12.5 $\times$ 25	0.30	1410	470	1800	UVK1A472MHD
	6800	16 $\times$ 25	0.34	2040	680	2250	UVK1A682MHD
	10000	16 $\times$ 30.5	0.42	3000	1000	2550	UVK1A103MHD
	15000	16 $\times$ 35.5	0.52	4500	1500	2880	UVK1A153MHD
	22000	18 $\times$ 40	0.66	6600	2200	3400	UVK1A223MHD
16 (1C)	470	8 $\times$ 11.5	0.20	225.6	75.2	440	UVK1C471MPD
	1000	10 $\times$ 12.5	0.20	480	160	700	UVK1C102MPD
	2200	10 $\times$ 20	0.22	1056	352	1000	UVK1C222MPD
	3300	12.5 $\times$ 25	0.24	1584	528	1700	UVK1C332MHD
	4700	16 $\times$ 25	0.26	2256	752	2100	UVK1C472MHD
	6800	16 $\times$ 25	0.30	3264	1088	2250	UVK1C682MHD
	10000	16 $\times$ 35.5	0.38	4800	1600	2710	UVK1C103MHD
	15000	18 $\times$ 40	0.48	7200	2400	3100	UVK1C153MHD
25 (1E)	330	8 $\times$ 11.5	0.16	247.5	82.5	390	UVK1E331MPD
	470	10 $\times$ 12.5	0.16	352.5	117.5	550	UVK1E471MPD
	1000	10 $\times$ 16	0.16	750	250	860	UVK1E102MPD
	2200	12.5 $\times$ 25	0.18	1650	550	1550	UVK1E222MHD
	3300	16 $\times$ 25	0.20	2475	825	1980	UVK1E332MHD
	4700	16 $\times$ 25	0.22	3525	1175	2200	UVK1E472MHD
	6800	16 $\times$ 35.5	0.26	5100	1700	2600	UVK1E682MHD
	10000	18 $\times$ 40	0.34	7500	2500	2800	UVK1E103MHD
35 (1V)	220	8 $\times$ 11.5	0.14	231	77	350	UVK1V221MPD
	330	10 $\times$ 12.5	0.14	346.5	115.5	490	UVK1V331MPD
	470	10 $\times$ 16	0.14	493.5	164.5	650	UVK1V471MPD
	1000	12.5 $\times$ 20	0.14	1050	350	1150	UVK1V102MHD
	2200	16 $\times$ 25	0.16	2310	770	1800	UVK1V222MHD
	3300	16 $\times$ 30.5	0.18	3465	1155	2100	UVK1V332MHD
	4700	16 $\times$ 35.5	0.20	4935	1645	2500	UVK1V472MHD
	6800	18 $\times$ 40	0.24	7140	2380	2800	UVK1V682MHD
50 (1H)	100	8 $\times$ 11.5	0.12	150	50	260	UVK1H101MPD
	220	10 $\times$ 12.5	0.12	330	110	430	UVK1H221MPD
	330	10 $\times$ 16	0.12	495	165	590	UVK1H331MPD
	470	10 $\times$ 20	0.12	705	235	760	UVK1H471MPD
	1000	12.5 $\times$ 25	0.12	1500	500	1350	UVK1H102MHD
	2200	16 $\times$ 30.5	0.14	3300	1100	1980	UVK1H222MHD
	3300	18 $\times$ 35.5	0.16	4950	1650	2500	UVK1H332MHD

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.

UVK

## ■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance ( $\mu$ F)	Case Size $\phi$ D $\times$ L (mm)	tan $\delta$	Leakage Current ( $\mu$ A)		Rated Ripple (mA <sub>rms</sub> ) (85°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
63 (1J)	68	8 $\times$ 11.5	0.10	128.52	42.84	220	UVK1J680MPD
	100	8 $\times$ 11.5	0.10	189	63	280	UVK1J101MPD
	220	10 $\times$ 16	0.10	415.8	138.6	490	UVK1J221MPD
	330	10 $\times$ 20	0.10	623.7	207.9	710	UVK1J331MPD
	470	12.5 $\times$ 20	0.10	888.3	296.1	900	UVK1J471MHD
	1000	16 $\times$ 25	0.10	1890	630	1300	UVK1J102MHD
	2200	18 $\times$ 35.5	0.12	4158	1386	2300	UVK1J222MHD
100 (2A)	33	8 $\times$ 11.5	0.08	99	33	180	UVK2A330MPD
	47	8 $\times$ 11.5	0.08	141	47	200	UVK2A470MPD
	68	10 $\times$ 12.5	0.08	204	68	270	UVK2A680MPD
	100	10 $\times$ 16	0.08	300	100	340	UVK2A101MPD
	220	12.5 $\times$ 20	0.08	660	220	550	UVK2A221MHD
	330	12.5 $\times$ 25	0.08	990	330	760	UVK2A331MHD
	470	16 $\times$ 25	0.08	1410	470	1000	UVK2A471MHD
	1000	18 $\times$ 35.5	0.08	3000	1000	1350	UVK2A102MHD
160 (2C)	10	8 $\times$ 11.5	0.20	164	—	80	UVK2C100MPD
	22	10 $\times$ 12.5	0.20	240.8	—	130	UVK2C220MPD
	33	10 $\times$ 16	0.20	311.2	—	180	UVK2C330MPD
	47	10 $\times$ 20	0.20	400.8	—	210	UVK2C470MPD
	68	12.5 $\times$ 20	0.20	535.2	—	350	UVK2C680MHD
	100	12.5 $\times$ 25	0.20	740	—	430	UVK2C101MHD
	220	16 $\times$ 30.5	0.20	1508	—	580	UVK2C221MHD
	330	18 $\times$ 35.5	0.20	2212	—	800	UVK2C331MHD
	470	18 $\times$ 40	0.20	3108	—	1200	UVK2C471MHD
200 (2D)	10	8 $\times$ 11.5	0.20	180	—	80	UVK2D100MPD
	22	10 $\times$ 16	0.20	276	—	150	UVK2D220MPD
	33	10 $\times$ 20	0.20	364	—	200	UVK2D330MPD
	47	12.5 $\times$ 20	0.20	476	—	270	UVK2D470MHD
	68	12.5 $\times$ 25	0.20	644	—	350	UVK2D680MHD
	100	16 $\times$ 25	0.20	900	—	450	UVK2D101MHD
	220	16 $\times$ 35.5	0.20	1860	—	700	UVK2D221MHD
	330	18 $\times$ 40	0.20	2740	—	950	UVK2D331MHD
250 (2E)	10	10 $\times$ 12.5	0.20	200	—	100	UVK2E100MPD
	22	10 $\times$ 20	0.20	320	—	150	UVK2E220MPD
	33	10 $\times$ 20	0.20	430	—	200	UVK2E330MPD
	47	12.5 $\times$ 20	0.20	570	—	270	UVK2E470MHD
	68	16 $\times$ 25	0.20	780	—	380	UVK2E680MHD
	100	16 $\times$ 25	0.20	1100	—	440	UVK2E101MHD
	220	18 $\times$ 35.5	0.20	2300	—	680	UVK2E221MHD

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UVK

## ■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance ( $\mu$ F)	Case Size $\phi$ D $\times$ L (mm)	tan $\delta$	Leakage Current ( $\mu$ A)		Rated Ripple (mArms) (85°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
350 (2V)	3.3	8 $\times$ 11.5	0.25	146.2	—	43	UVK2V3R3MPD
	4.7	8 $\times$ 11.5	0.25	165.8	—	55	UVK2V4R7MPD
	10	10 $\times$ 12.5	0.25	240	—	90	UVK2V100MPD
	22	12.5 $\times$ 20	0.25	408	—	150	UVK2V220MHD
	33	12.5 $\times$ 25	0.25	562	—	240	UVK2V330MHD
	47	16 $\times$ 25	0.25	758	—	300	UVK2V470MHD
	68	16 $\times$ 25	0.25	1052	—	400	UVK2V680MHD
	100	18 $\times$ 35.5	0.25	1500	—	520	UVK2V101MHD
400 (2G)	2.2	8 $\times$ 11.5	0.25	128	—	38	UVK2G2R2MPD
	3.3	8 $\times$ 11.5	0.25	152.8	—	48	UVK2G3R3MPD
	4.7	10 $\times$ 12.5	0.25	175.2	—	60	UVK2G4R7MPD
	10	10 $\times$ 16	0.25	260	—	90	UVK2G100MPD
	22	12.5 $\times$ 25	0.25	452	—	200	UVK2G220MHD
	33	16 $\times$ 25	0.25	628	—	240	UVK2G330MHD
	47	16 $\times$ 25	0.25	852	—	280	UVK2G470MHD
	68	16 $\times$ 30.5	0.25	1188	—	340	UVK2G680MHD
450 (2W)	100	18 $\times$ 35.5	0.25	1700	—	440	UVK2G101MHD
	2.2	8 $\times$ 11.5	0.25	139	—	28	UVK2W2R2MPD
	3.3	10 $\times$ 12.5	0.25	159.4	—	40	UVK2W3R3MPD
	4.7	10 $\times$ 12.5	0.25	184.6	—	46	UVK2W4R7MPD
	10	10 $\times$ 20	0.25	280	—	80	UVK2W100MPD
	22	12.5 $\times$ 25	0.25	496	—	140	UVK2W220MHD
	33	16 $\times$ 25	0.25	694	—	180	UVK2W330MHD
	47	16 $\times$ 30.5	0.25	946	—	220	UVK2W470MHD
	68	18 $\times$ 35.5	0.25	1324	—	260	UVK2W680MHD
100	18 $\times$ 40	0.25	1900	—	280	UVK2W101MHD	

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.