ALUMINUM ELECTROLYTIC CAPACITORS

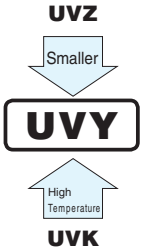
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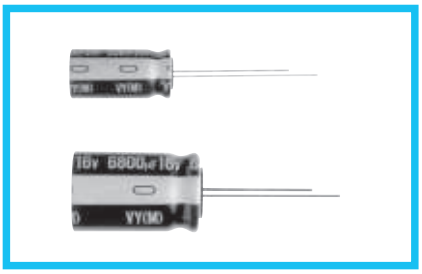
UVY

Wide Temperature Range

Smaller

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





■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105˚C (6.3 to 100V), −40 to +105˚C (160 to 400V), −25 to +105˚C (450V)
Rated Voltage Range	6.3 to 450V
Rated Capacitance Range	2.2 to 22000μF
Capacitance Tolerance	±20% at 120Hz, 20˚C
Leakage Current ※	Rated voltage (V) | 6.3 to 100: 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). | 160 to 450: After 1 minute's application of rated voltage at 20°C, CV ≦ 1000 : I =0.1CV+40 (μA) or less; CV > 1000 : I =0.04CV+100 (μA) or less
Tangent of loss angle (tan δ)	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
tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.25

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35 to 50	63 to 100	160 to 200	250 to 350	400	450
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)	10	8	6	4	3	3	4	8	10	—

Endurance — 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 (1000 hours for φ8) at 105°C.

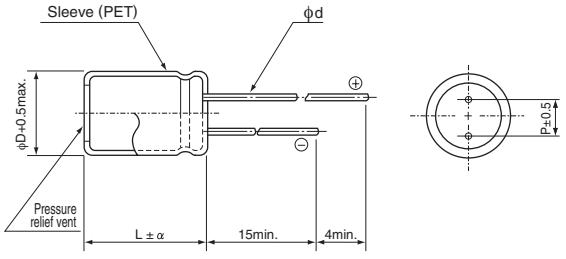
Capacitance change	Within ±20% of the initial capacitance value
tan δ	200% or less than the initial specified value
Leakage current	Less than or equal to the initial specified value

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 above.

Marking — Printed with white color letter on black sleeve.

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

■Radial Lead Type



(mm)

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

α	
	(L < 20) 1.5
	(L ≧ 20) 2.0

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

Type numbering system (Example : 10V 3300μF)

1	2	3	4	5	6	7	8	9	10	11
U	V	Y	1	A	3	3	2	M	H	D

Configuration ※
Capacitance tolerance (±20%)
Rated capacitance (3300μF)
Rated voltage (10V)
Series name
Type

※ 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	10 kHz 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.

UVY

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (105℃/120Hz)	Part Number
				at 20℃ after 1 minute	at 20℃ after 2 minutes		
6.3 (0J)	1000	8×11.5	0.28	189	63	390	UVY0J102MPD
	2200	10×16	0.30	415.8	138.6	635	UVY0J222MPD
	3300	10×20	0.32	623.7	207.9	840	UVY0J332MPD
	4700	12.5×20	0.34	888.3	296.1	1090	UVY0J472MHD
	6800	12.5×25	0.38	1285.2	428.4	1350	UVY0J682MHD
	10000	16×25	0.46	1890	630	1650	UVY0J103MHD
	15000	16×30.5	0.56	2835	945	1820	UVY0J153MHD
	22000	18×35.5	0.70	4158	1386	2280	UVY0J223MHD
10 (1A)	1000	10×12.5	0.24	300	100	460	UVY1A102MPD
	2200	10×16	0.26	660	220	705	UVY1A222MPD
	3300	12.5×20	0.28	990	330	1000	UVY1A332MHD
	4700	12.5×25	0.30	1410	470	1260	UVY1A472MHD
	6800	16×25	0.34	2040	680	1570	UVY1A682MHD
	10000	16×30.5	0.42	3000	1000	1820	UVY1A103MHD
	15000	16×35.5	0.52	4500	1500	2050	UVY1A153MHD
	22000	18×40	0.66	6600	2200	2420	UVY1A223MHD
16 (1C)	470	8×11.5	0.20	225.6	75.2	315	UVY1C471MPD
	1000	10×12.5	0.20	480	160	500	UVY1C102MPD
	2200	10×20	0.22	1056	352	710	UVY1C222MPD
	3300	12.5×25	0.24	1584	528	1170	UVY1C332MHD
	4700	16×25	0.26	2256	752	1500	UVY1C472MHD
	6800	16×25	0.30	3264	1088	1600	UVY1C682MHD
	10000	16×35.5	0.38	4800	1600	1930	UVY1C103MHD
	15000	18×40	0.48	7200	2400	2210	UVY1C153MHD
25 (1E)	330	8×11.5	0.16	247.5	82.5	275	UVY1E331MPD
	470	10×12.5	0.16	352.5	117.5	380	UVY1E471MPD
	1000	10×16	0.16	750	250	610	UVY1E102MPD
	2200	12.5×25	0.18	1650	550	1090	UVY1E222MHD
	3300	16×25	0.20	2475	825	1400	UVY1E332MHD
	4700	16×25	0.22	3525	1175	1570	UVY1E472MHD
	6800	16×35.5	0.26	5100	1700	1850	UVY1E682MHD
	10000	18×40	0.34	7500	2500	2000	UVY1E103MHD
35 (1V)	220	8×11.5	0.14	231	77	250	UVY1V221MPD
	330	10×12.5	0.14	346.5	115.5	350	UVY1V331MPD
	470	10×16	0.14	493.5	164.5	460	UVY1V471MPD
	1000	12.5×20	0.14	1050	350	810	UVY1V102MHD
	2200	16×25	0.16	2310	770	1260	UVY1V222MHD
	3300	16×30.5	0.18	3465	1155	1500	UVY1V332MHD
	4700	16×35.5	0.20	4935	1645	1780	UVY1V472MHD
	6800	18×40	0.24	7140	2380	2000	UVY1V682MHD

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.

UVY

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (105℃/120Hz)	Part Number
				at 20℃ after 1 minute	at 20℃ after 2 minutes		
50 (1H)	100	8×11.5	0.12	150	50	190	UVY1H101MPD
	220	10×12.5	0.12	330	110	300	UVY1H221MPD
	330	10×16	0.12	495	165	410	UVY1H331MPD
	470	10×20	0.12	705	235	540	UVY1H471MPD
	1000	12.5×25	0.12	1500	500	950	UVY1H102MHD
	2200	16×30.5	0.14	3300	1100	1410	UVY1H222MHD
	3300	18×35.5	0.16	4950	1650	1770	UVY1H332MHD
63 (1J)	68	8×11.5	0.10	128.52	42.84	155	UVY1J680MPD
	100	8×11.5	0.10	189	63	200	UVY1J101MPD
	220	10×16	0.10	415.8	138.6	335	UVY1J221MPD
	330	10×20	0.10	623.7	207.9	510	UVY1J331MPD
	470	12.5×20	0.10	888.3	296.1	640	UVY1J471MHD
	1000	16×25	0.10	1890	630	930	UVY1J102MHD
	2200	18×35.5	0.12	4158	1386	1650	UVY1J222MHD
100 (2A)	33	8×11.5	0.08	99	33	130	UVY2A330MPD
	47	8×11.5	0.08	141	47	140	UVY2A470MPD
	68	10×12.5	0.08	204	68	190	UVY2A680MPD
	100	10×16	0.08	300	100	240	UVY2A101MPD
	220	12.5×20	0.08	660	220	390	UVY2A221MHD
	330	12.5×25	0.08	990	330	540	UVY2A331MHD
	470	16×25	0.08	1410	470	715	UVY2A471MHD
	1000	18×35.5	0.08	3000	1000	960	UVY2A102MHD
160 (2C)	10	8×11.5	0.20	164	—	41	UVY2C100MPD
	22	10×12.5	0.20	240.8	—	92	UVY2C220MPD
	33	10×16	0.20	311.2	—	125	UVY2C330MPD
	47	10×20	0.20	400.8	—	150	UVY2C470MPD
	68	12.5×20	0.20	535.2	—	250	UVY2C680MHD
	100	12.5×25	0.20	740	—	310	UVY2C101MHD
	220	16×30.5	0.20	1508	—	410	UVY2C221MHD
	330	18×35.5	0.20	2212	—	570	UVY2C331MHD
	470	18×40	0.20	3108	—	855	UVY2C471MHD
200 (2D)	10	8×11.5	0.20	180	—	57	UVY2D100MPD
	22	10×16	0.20	276	—	105	UVY2D220MPD
	33	10×20	0.20	364	—	140	UVY2D330MPD
	47	12.5×20	0.20	476	—	195	UVY2D470MHD
	68	12.5×25	0.20	644	—	250	UVY2D680MHD
	100	16×25	0.20	900	—	320	UVY2D101MHD
	220	16×35.5	0.20	1860	—	500	UVY2D221MHD
	330	18×40	0.20	2740	—	675	UVY2D331MHD

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UVY

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (105℃/120Hz)	Part Number
				at 20℃ after 1 minute	at 20℃ after 2 minutes		
250 (2E)	10	10×12.5	0.20	200	—	71	UVY2E100MPD
	22	10×20	0.20	320	—	105	UVY2E220MPD
	33	10×20	0.20	430	—	140	UVY2E330MPD
	47	12.5×20	0.20	570	—	190	UVY2E470MHD
	68	16×25	0.20	780	—	270	UVY2E680MHD
	100	16×25	0.20	1100	—	310	UVY2E101MHD
	220	18×35.5	0.20	2300	—	485	UVY2E221MHD
350 (2V)	3.3	8×11.5	0.25	146.2	—	30	UVY2V3R3MPD
	4.7	8×11.5	0.25	165.8	—	39	UVY2V4R7MPD
	10	10×12.5	0.25	240	—	64	UVY2V100MPD
	22	12.5×20	0.25	408	—	105	UVY2V220MHD
	33	12.5×25	0.25	562	—	170	UVY2V330MHD
	47	16×25	0.25	758	—	210	UVY2V470MHD
	68	16×25	0.25	1052	—	285	UVY2V680MHD
	100	18×35.5	0.25	1500	—	370	UVY2V101MHD
400 (2G)	2.2	8×11.5	0.25	128	—	27	UVY2G2R2MPD
	3.3	8×11.5	0.25	152.8	—	34	UVY2G3R3MPD
	4.7	10×12.5	0.25	175.2	—	42	UVY2G4R7MPD
	10	10×16	0.25	260	—	64	UVY2G100MPD
	22	12.5×25	0.25	452	—	140	UVY2G220MHD
	33	16×25	0.25	628	—	170	UVY2G330MHD
	47	16×25	0.25	852	—	200	UVY2G470MHD
	68	16×30.5	0.25	1188	—	240	UVY2G680MHD
	100	18×35.5	0.25	1700	—	310	UVY2G101MHD
450 (2W)	2.2	8×11.5	0.25	139	—	20	UVY2W2R2MPD
	3.3	10×12.5	0.25	159.4	—	28	UVY2W3R3MPD
	4.7	10×12.5	0.25	184.6	—	32	UVY2W4R7MPD
	10	10×20	0.25	280	—	56	UVY2W100MPD
	22	12.5×25	0.25	496	—	100	UVY2W220MHD
	33	16×25	0.25	694	—	125	UVY2W330MHD
	47	16×30.5	0.25	946	—	155	UVY2W470MHD
	68	18×35.5	0.25	1324	—	185	UVY2W680MHD
	100	18×40	0.25	1900	—	200	UVY2W101MHD

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