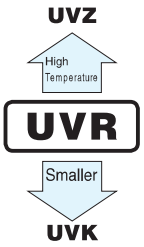
ALUMINUM ELECTROLYTIC CAPACITORS

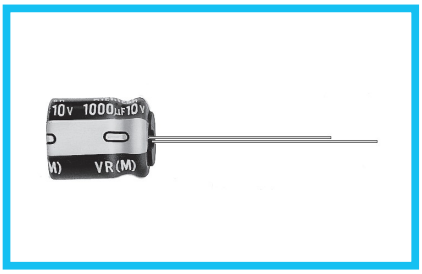
nichicon

UVR

Miniature Sized

- Standard series for entertainment electronics.
- 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 to +85˚C (450V)
Rated Voltage Range	6.3 to 450V
Rated Capacitance Range	1 to 22000μF
Capacitance Tolerance	±20% at 120Hz, 20˚C
Leakage Current ※	Rated voltage (V) — 6.3 to 100V: 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 450V: 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
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 315	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	50	63	100	160 to 200	250 to 350	400	450
Impedance ratio (max.)	Z(−25˚C) / Z(+20˚C)	5	4	3	2	2	2	2	2	3	4	6	15
	Z(−40˚C) / Z(+20˚C)	12	10	8	5	4	3	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 at 85°C.

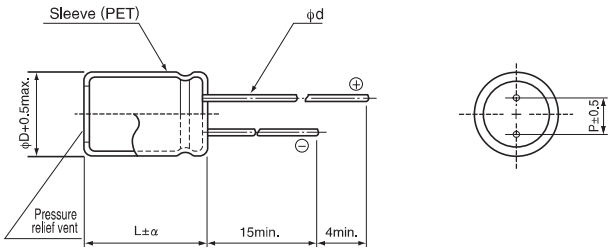
Capacitance change	Within ±20% of the initial capacitance value
tan δ	200% or less than the initial specified value
Leakage current	Less than or equal to the initial specified value

Shelf Life — After storing the capacitors under no load at 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.

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	12
U	V	R	1	A	3	3	2	M	H	D	

Size code
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	Frequency / Cap.(μF)	50Hz	120Hz	300Hz	1 kHz	10kHz or more
6.3 to 100	33 to 47	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	1 to 220	0.80	1.00	1.25	1.40	1.60
	330	0.90	1.00	1.10	1.13	1.15

● Dimension table in next page.

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■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (85℃/120Hz)	Part Number
				at 20℃ after 1 minute	at 20℃ after 2 minutes		
6.3 (0J)	1000	8×11.5	0.28	189	63	540	UVR0J102MPD
	2200	10×20	0.30	415.8	138.6	1000	UVR0J222MPD
	3300	10×20	0.32	623.7	207.9	1190	UVR0J332MPD
	4700	12.5×20	0.34	888.3	296.1	1550	UVR0J472MHD
	6800	12.5×25	0.38	1285.2	428.4	1920	UVR0J682MHD
	10000	16×25	0.46	1890	630	2350	UVR0J103MHD
	15000	16×35.5	0.56	2835	945	2850	UVR0J153MHD
	22000	18×40	0.70	4158	1386	3350	UVR0J223MHD
10 (1A)	1000	10×12.5	0.24	300	100	650	UVR1A102MPD
	2200	10×20	0.26	660	220	1100	UVR1A222MPD
	3300	12.5×20	0.28	990	330	1450	UVR1A332MHD
	4700	12.5×25	0.30	1410	470	1800	UVR1A472MHD
	6800	16×25	0.34	2040	680	2250	UVR1A682MHD
	10000	16×35.5	0.42	3000	1000	2700	UVR1A103MHD
	15000	18×35.5	0.52	4500	1500	3100	UVR1A153MHD
16 (1C)	330	8×11.5	0.20	158.4	52.8	370	UVR1C331MPD
	470	8×11.5	0.20	225.6	75.2	440	UVR1C471MPD
	1000	10×16	0.20	480	160	790	UVR1C102MPD
	2200	12.5×20	0.22	1056	352	1300	UVR1C222MHD
	3300	12.5×25	0.24	1584	528	1700	UVR1C332MHD
	4700	16×25	0.26	2256	752	2100	UVR1C472MHD
	6800	16×35.5	0.30	3264	1088	2650	UVR1C682MHD
	10000	18×35.5	0.38	4800	1600	2950	UVR1C103MHD
25 (1E)	220	8×11.5	0.16	165	55	330	UVR1E221MPD
	330	10×12.5	0.16	247.5	82.5	440	UVR1E331MPD
	470	10×12.5	0.16	352.5	117.5	550	UVR1E471MPD
	1000	10×20	0.16	750	250	960	UVR1E102MPD
	2200	12.5×25	0.18	1650	550	1550	UVR1E222MHD
	3300	16×25	0.20	2475	825	1980	UVR1E332MHD
	4700	16×30.5	0.22	3525	1175	2450	UVR1E472MHD
	6800	18×35.5	0.26	5100	1700	2900	UVR1E682MHD
35 (1V)	220	10×12.5	0.14	231	77	385	UVR1V221MPD
	330	10×12.5	0.14	346.5	115.5	490	UVR1V331MPD
	470	10×16	0.14	493.5	164.5	650	UVR1V471MPD
	1000	12.5×20	0.14	1050	350	1150	UVR1V102MHD
	2200	16×25	0.16	2310	770	1800	UVR1V222MHD
	3300	16×35.5	0.18	3465	1155	2280	UVR1V332MHD
	4700	18×35.5	0.20	4935	1645	2700	UVR1V472MHD

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.

UVR

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (85℃/120Hz)	Part Number
				at 20℃ after 1 minute	at 20℃ after 2 minutes		
50 (1H)	100	8×11.5	0.12	150	50	260	UVR1H101MPD
	220	10×12.5	0.12	330	110	430	UVR1H221MPD
	330	10×16	0.12	495	165	590	UVR1H331MPD
	470	12.5×20	0.12	705	235	760	UVR1H471MHD
	1000	12.5×25	0.12	1500	500	1350	UVR1H102MHD
	2200	16×35.5	0.14	3300	1100	2100	UVR1H222MHD
	3300	18×35.5	0.16	4950	1650	2500	UVR1H332MHD
63 (1J)	100	10×12.5	0.10	189	63	300	UVR1J101MPD
	220	10×16	0.10	415.8	138.6	490	UVR1J221MPD
	330	10×20	0.10	623.7	207.9	710	UVR1J331MPD
	470	12.5×20	0.10	888.3	296.1	900	UVR1J471MHD
	1000	16×25	0.10	1890	630	1300	UVR1J102MHD
	2200	18×35.5	0.12	4158	1386	2300	UVR1J222MHD
100 (2A)	33	8×11.5	0.08	99	33	180	UVR2A330MPD
	47	10×12.5	0.08	141	47	230	UVR2A470MPD
	100	10×20	0.08	300	100	370	UVR2A101MPD
	220	12.5×25	0.08	660	220	620	UVR2A221MHD
	330	12.5×25	0.08	990	330	760	UVR2A331MHD
	470	16×25	0.08	1410	470	1000	UVR2A471MHD
	1000	18×40	0.08	3000	1000	1380	UVR2A102MHD
160 (2C)	10	8×11.5	0.20	164	—	80	UVR2C100MPD
	22	10×16	0.20	240.8	—	155	UVR2C220MPD
	33	10×20	0.20	311.2	—	205	UVR2C330MPD
	47	12.5×20	0.20	400.8	—	270	UVR2C470MHD
	100	12.5×25	0.20	740	—	430	UVR2C101MHD
	220	16×35.5	0.20	1508	—	800	UVR2C221MHD
	330	18×40	0.20	2212	—	940	UVR2C331MHD
200 (2D)	4.7	8×11.5	0.20	134	—	55	UVR2D4R7MPD
	10	10×12.5	0.20	180	—	95	UVR2D100MPD
	22	10×20	0.20	276	—	170	UVR2D220MPD
	33	12.5×20	0.20	364	—	230	UVR2D330MHD
	47	12.5×20	0.20	476	—	270	UVR2D470MHD
	100	16×30.5	0.20	900	—	530	UVR2D101MHD
	220	18×35.5	0.20	1860	—	810	UVR2D221MHD
250 (2E)	3.3	8×11.5	0.20	122.5	—	46	UVR2E3R3MPD
	4.7	8×11.5	0.20	147	—	55	UVR2E4R7MPD
	10	10×16	0.20	200	—	105	UVR2E100MPD
	22	12.5×20	0.20	320	—	190	UVR2E220MHD
	33	12.5×20	0.20	430	—	230	UVR2E330MHD
	47	12.5×25	0.20	570	—	300	UVR2E470MHD
	100	16×30.5	0.20	1100	—	520	UVR2E101MHD

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UVR

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA)		Rated Ripple (mArms) (85℃/120Hz)	Part Number
				at 20℃ after 1 minute	at 20℃ after 2 minutes		
315 (2F)	2.2	8×11.5	0.20	109.3	—	33	UVR2F2R2MPD
	3.3	10×12.5	0.20	141.58	—	55	UVR2F3R3MPD
	4.7	10×12.5	0.20	159.22	—	65	UVR2F4R7MPD
	10	10×20	0.20	226	—	115	UVR2F100MPD
	22	12.5×20	0.20	377.2	—	190	UVR2F220MHD
	33	16×25	0.20	515.8	—	275	UVR2F330MHD
	47	16×25	0.20	692.2	—	340	UVR2F470MHD
	100	18×35.5	0.20	1360	—	560	UVR2F101MHD
350 (2V)	2.2	8×11.5	0.25	117	—	38	UVR2V2R2MPD
	3.3	10×12.5	0.25	146.2	—	55	UVR2V3R3MPD
	4.7	10×12.5	0.25	165.8	—	65	UVR2V4R7MPD
	10	10×20	0.25	240	—	115	UVR2V100MPD
	22	12.5×25	0.25	408	—	200	UVR2V220MHD
	33	16×25	0.25	562	—	275	UVR2V330MHD
	47	16×35.5	0.25	758	—	380	UVR2V470MHD
	100	18×40	0.25	1500	—	590	UVR2V101MHD
400 (2G)	1	8×11.5	0.25	80	—	25	UVR2G010MPD
	2.2	10×12.5	0.25	128	—	45	UVR2G2R2MPD
	3.3	10×12.5	0.25	152.8	—	55	UVR2G3R3MPD
	4.7	10×16	0.25	175.2	—	70	UVR2G4R7MPD
	10	12.5×20	0.25	260	—	130	UVR2G100MHD
	22	16×25	0.25	452	—	240	UVR2G220MHD
	33	16×30.5	0.25	628	—	300	UVR2G330MHD
	47	16×35.5	0.25	852	—	370	UVR2G470MHD
450 (2W)	1	8×11.5	0.25	85	—	23	UVR2W010MPD
	2.2	10×12.5	0.25	139	—	35	UVR2W2R2MPD
	3.3	10×16	0.25	159.4	—	45	UVR2W3R3MPD
	4.7	10×20	0.25	184.6	—	55	UVR2W4R7MPD
	10	12.5×20	0.25	280	—	90	UVR2W100MHD
	22	16×25	0.25	496	—	165	UVR2W220MHD
	33	16×35.5	0.25	694	—	230	UVR2W330MHD
	47	18×40	0.25	946	—	300	UVR2W470MHD

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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.