

UVR2A331MHD1T0 Datasheet



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DiGi Electronics Part Number	UVR2A331MHD1TO-DG
Manufacturer	Nichicon
Manufacturer Product Number	UVR2A331MHD1TO
Description	CAP ALUM 330UF 20% 100V RADIAL
Detailed Description	330 μ F 100 V Aluminum Electrolytic Capacitors Radial, Can 2000 Hrs @ 85°C

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Purchase and inquiry

Manufacturer Product Number:

UVR2A331MHD1TO

Series:

UVR

Capacitance:

330 μ F

Voltage - Rated:

100 V

Lifetime @ Temp.:

2000 Hrs @ 85°C

Polarization:

Polar

Applications:

General Purpose

Ripple Current @ High Frequency:

1.14 A @ 10 kHz

Size / Dimension:

0.492" Dia (12.50mm)

Surface Mount Land Size:

-

Package / Case:

Radial, Can

Manufacturer:

Nichicon

Product Status:

Not For New Designs

Tolerance:

\pm 20%

ESR (Equivalent Series Resistance):

-

Operating Temperature:

-40°C ~ 85°C

Ratings:

-

Ripple Current @ Low Frequency:

760 mA @ 120 Hz

Lead Spacing:

0.197" (5.00mm)

Height - Seated (Max):

1.063" (27.00mm)

Mounting Type:

Through Hole

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8532.22.0020

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

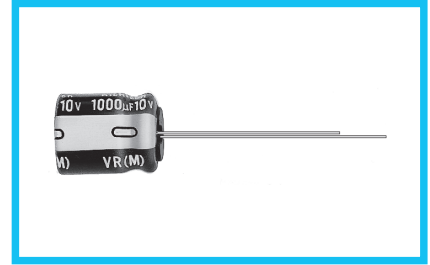
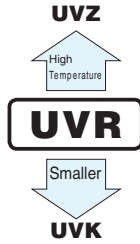
EAR99

ALUMINUM ELECTROLYTIC CAPACITORS

UVR

Miniature Sized

- Standard series for entertainment electronics.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

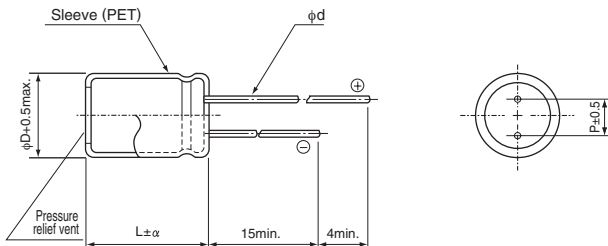


Specifications

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 ※	<table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3 to 100V</th> <th>160 to 450V</th> </tr> <tr> <td>_____</td> <td>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).</td> <td>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</td> </tr> </table>	Rated voltage (V)	6.3 to 100V	160 to 450V	_____	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																																				
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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 <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160 to 315</th> <th>350 to 450</th> </tr> <tr> <td>tan δ (max.)</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.20</td> <td>0.25</td> </tr> </table>	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																				
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Stability at Low Temperature	<table border="1"> <tr> <th colspan="2">Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160 to 200</th> <th>250 to 350</th> <th>400</th> <th>450</th> </tr> <tr> <td rowspan="2">Impedance ratio (max.)</td> <td>Z(-25°C) / Z(+20°C)</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>4</td> <td>6</td> <td>15</td> </tr> <tr> <td>Z(-40°C) / Z(+20°C)</td> <td>12</td> <td>10</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>8</td> <td>10</td> <td>—</td> </tr> </table>	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	—	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.	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table>	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																																			
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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

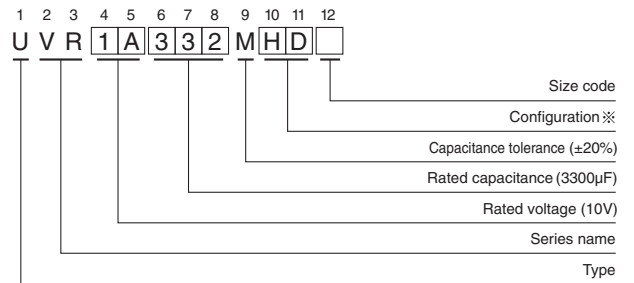
α	(L < 20) 1.5
	(L ≥ 20) 2.0

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

Frequency coefficient of rated ripple current

V	Cap.(μF)	Frequency				
		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

Type numbering system (Example : 10V 3300μF)



※ Configuration

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

● Dimension table in next page.

ALUMINUM ELECTROLYTIC CAPACITORS

UVR

■ Dimensions

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

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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.

ALUMINUM ELECTROLYTIC CAPACITORS

UVR

■ Dimensions

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

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ALUMINUM ELECTROLYTIC CAPACITORS

UVR

■ Dimensions

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

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

OUR CERTIFICATE

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