

# ALUMINUM ELECTROLYTIC CAPACITORS

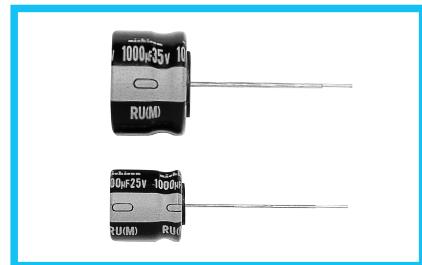
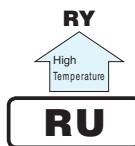
nichicon

**RU** 12.5mmL  
series



- 12.5mmL height.
- Compliant to the RoHS directive (2011/65/EU).

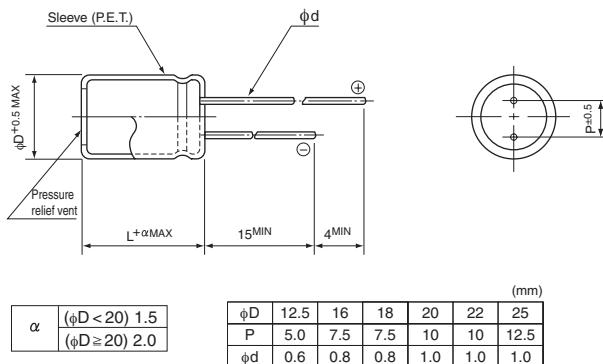
Products which are scheduled to be discontinued.  
Not recommended for new designs



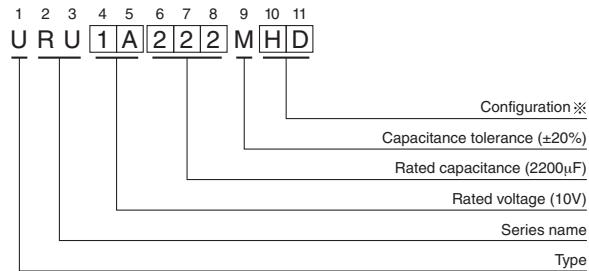
## ■ Specifications

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	6.8 to 6800μF																				
Capacitance Tolerance	±20% at 120Hz, 20°C																				
Leakage Current	Rated voltage (V)	6.3 to 100					160 to 450														
		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.					After 1 minute's application of rated voltage at 20°C, 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 350	400 to 450										
	tan δ (MAX.)	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.12	0.20	0.25										
Stability at Low Temperature	Measurement frequency : 120Hz																				
	Rated voltage (V)	6.3	10	16	25	35	50 to 100	160 to 200	250 to 350	400	450										
	Impedance ratio Z-25°C / Z+20°C	5	4	3	2	2	2	3	4	6	15										
	ZT / Z20 (MAX.)	12	10	8	5	4	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.																				

## ■ Radial Lead Type



## Type numbering system (Example : 10V 2200μF)



### ※ Configuration

$\phi D$	Pb-free leadwire Pb-free PET sleeve
12.5 to 18	HD
20 to 25	RD

- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

● Dimension table in next page.

CAT.8100D

# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

**RU** series

## ■ Dimensions

Cap.( $\mu$ F)	V	6.3	10	16	25	35	50	
	Code	0J	1A	1C	1E	1V	1H	
330	331							12.5 × 12.5   530
470	471							16 × 12.5   600
680	681							20 × 12.5   750
1000	102				12.5 × 12.5   750	18 × 12.5   850	25 × 12.5   930	
2200	222		12.5 × 12.5   870	20 × 12.5   1200	25 × 12.5   1380			
3300	332	16 × 12.5   800	18 × 12.5   1100	25 × 12.5   1410				
4700	472	20 × 12.5   1460	25 × 12.5   1480					
6800	682	25 × 12.5   1600						Case size Φ D × L (mm)   Rated ripple

Cap.( $\mu$ F)	V	63	100	160	200	250	315	
	Code	1J	2A	2C	2D	2E	2F	
22	220				12.5 × 12.5   190	16 × 12.5   190	16 × 12.5   190	
33	330			12.5 × 12.5   230	16 × 12.5   230	18 × 12.5   230	20 × 12.5   230	
47	470			16 × 12.5   280	18 × 12.5   280	20 × 12.5   280	25 × 12.5   280	
68	680			18 × 12.5   330	22 × 12.5   330	25 × 12.5   330		
100	101		12.5 × 12.5   330	22 × 12.5   380	25 × 12.5   380			
220	221	12.5 × 12.5   490	22 × 12.5   620					
330	331	18 × 12.5   710	25 × 12.5   760					
470	471	22 × 12.5   900						
680	681	25 × 12.5   1200						

Cap.( $\mu$ F)	V	350	400	450	
	Code	2V	2G	2W	
6.8	6R8			12.5 × 12.5   70	
10	100	12.5 × 12.5   110	16 × 12.5   110	16 × 12.5   80	
22	220	18 × 12.5   230	20 × 12.5   230	22 × 12.5   160	
33	330	20 × 12.5   230	25 × 12.5   280		
47	470	25 × 12.5   280			

Rated ripple current (mA rms) at 85°C 120Hz

## ● Frequency coefficient of rated ripple current

V	Cap.( $\mu$ F)	Frequency	50Hz	120Hz	300Hz	1 kHz	10 kHz or more
6.3 to 100	100 to 680	100 to 680	0.80	1.00	1.23	1.34	1.50
	1000 to 6800	1000 to 6800	0.85	1.00	1.10	1.13	1.15
160 to 450	6.8 to 100	6.8 to 100	0.80	1.00	1.25	1.40	1.60

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