ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

RU 12.5mmL series

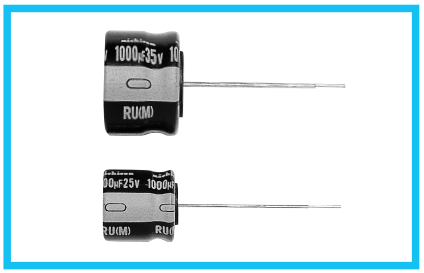
Smaller

Anti-Solvent Feature (Through 100V only)

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

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

RY
High Temperature
RU



■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 — 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. / 160 to 450 — 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.)	Z−40°C / Z+20°C	12	10	8	5	4	3	4	8	10	—

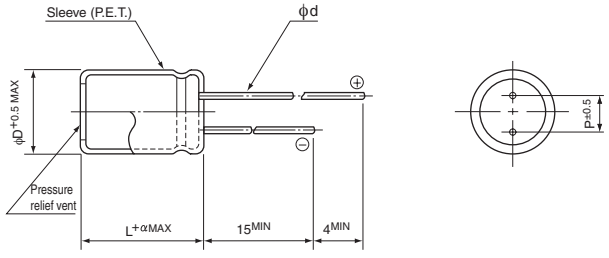
Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.

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



α	
	(φD < 20) 1.5
	(φD ≧ 20) 2.0

(mm)

φD	12.5	16	18	20	22	25
P	5.0	7.5	7.5	10	10	12.5
φd	0.6	0.8	0.8	1.0	1.0	1.0

Type numbering system (Example : 10V 2200μF)

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

Configuration※
Capacitance tolerance (±20%)
Rated capacitance (2200μF)
Rated voltage (10V)
Series name
Type

※Configuration

φ 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.

RU series

■Dimensions

Cap.(μF) \ V	Code	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
330	331											12.5 × 12.5	530
470	471											16 × 12.5	600
680	681									12.5 × 12.5	720	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							Case size φD × L (mm)	Rated ripple
6800	682	25 × 12.5	1600										

Cap.(μF) \ V	Code	63		100		160		200		250		315	
		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.(μF) \ V	Code	350		400		450	
		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 (mArms) at 85°C 120Hz

● Frequency coefficient of rated ripple current

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

Mouser Electronics

Authorized Distributor

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Nichicon:

URU1H102MRD URU2G220MRD URU1E102MHD URU0J332MHD URU0J472MRD URU0J682MRD URU1A222MHD URU1A332MHD URU1A472MRD URU1C332MRD URU1E222MRD URU1H331MHD URU1H471MHD URU1H681MRD URU1J331MHD URU1J471MRD URU1J681MRD URU1V102MHD URU1V681MHD URU2A101MHD URU2A221MRD URU2A331MRD URU2C101MRD URU2C330MHD URU2C470MHD URU2C680MHD URU2D101MRD URU2D220MHD URU2D330MHD URU2D470MHD URU2E220MHD URU2E330MHD URU2E470MRD URU2F220MHD URU2F330MRD URU2F470MRD URU2G100MHD URU2V100MHD URU2V220MHD URU2V330MRD URU2V470MRD URU2W100MHD URU2W220MRD URU2W6R8MHD URU1E102MHT1TO URU1J221MHT1TO URU2G330MRD URU2E680MRD URU1E102MHD1TO URU1J221MHD1TO URU1J221MHD URU1A222MHD1TO URU1C222MRD URU1V681MHD1TO URU2W6R8MHD1TO URU2D220MHD1TO URU2A101MHD1TO URU2C330MHD1TO URU2D680MRD