ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

RY 12.5mmL Wide Temperature Range series

Smaller

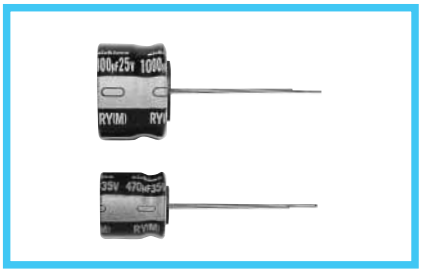
Anti-Solvent Feature (Through 100V only)

- 12.5mmL height.
- Adapted to the RoHS directive (2002/95/EC).

RY

High Temperature

RU



■Specifications

Item	Performance Characteristics
Category Temperature Range	–55 ~ +105°C (6.3 ~ 100V), –40 ~ +105°C (160 ~ 400V), –25 ~ +105°C (450V)
Rated Voltage Range	6.3 ~ 450V
Rated Capacitance Range	6.8 ~ 4700µF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	Rated voltage (V) | 6.3 ~ 100: After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or4 (µA), whichever is greater. After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (µA), whichever is greater. | 160 ~ 450: After 1 minute's application of rated voltage, I = 0.04CV+100 (µA) or less
tan δ	For capacitance of more than 1000µF, add 0.02 for every increase of 1000µF. Measurement frequency : 120Hz, Temperature : 20°C
Stability at Low Temperature	Measurement frequency : 120Hz
Endurance	After 2000 hours' application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.
Marking	Printed with white color letter on black sleeve.

tan δ

Rated voltage (V)	6.3	10	16	25	35	50	63	100	160 ~ 350	400 ~ 450
tan δ (MAX.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.25

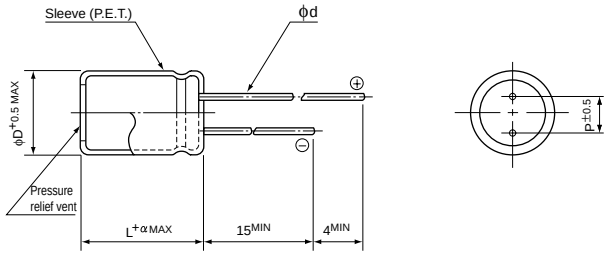
Stability at Low Temperature

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

Endurance

Capacitance change	Within ±20% of initial value
tan δ	200% or less of initial specified value
Leakage current	Initial specified value or less

■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	10.0	10.0	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	Y	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 ~ 18	HD
20 ~ 25	RD

Please refer to page 21, 22, 23 about the formed or taped product spec.
Please refer to page 3 for the minimum order quantity.

● Dimension table in next page.

RY series

■Dimensions

φD×L (mm)

Cap.(μF) \ V	6.3		10		16		25		35		50	
Code	0J		1A		1C		1E		1V		1H	
330	331										12.5×12.5	450
470	471								12.5×12.5	420	20×12.5	540
680	681						12.5×12.5	500	18×12.5	610	25×12.5	700
1000	102				12.5×12.5	520	18×12.5	770	22×12.5	810		
2200	222	12.5×12.5	580	18×12.5	820	25×12.5	1000	25×12.5	1170			
3300	332	18×12.5	730	22×12.5	1030							Rated
4700	472	25×12.5	1200								Case size	ripple

Cap.(μF) \ V	63		100		160		200		250		315	
Code	1J		2A		2C		2D		2E		2F	
10	100										12.5×12.5	70
22	220						12.5×12.5	110	16×12.5	130	16×12.5	85
33	330				12.5×12.5	130	16×12.5	170	18×12.5	170	20×12.5	120
47	470				16×12.5	210	18×12.5	230	22×12.5	190	25×12.5	160
68	680				20×12.5	280	25×12.5	310				
100	101		12.5×12.5	230	25×12.5	360						
220	221	12.5×12.5	400	22×12.5	400							
330	331	18×12.5	550									
470	471	22×12.5	610									

Cap.(μF) \ V	350		400		450	
Code	2V		2G		2W	
6.8	6R8				12.5×12.5	38
10	100	16×12.5	75	16×12.5	65	16×12.5	47
22	220	18×12.5	90	20×12.5	150	25×12.5	85
33	330	25×12.5	140	25×12.5	200		

Rated Ripple (mA rms) at 105°C 120Hz

●Frequency coefficient of rated ripple current

V	Cap.(μF) \ Frequency	50Hz	120Hz	300Hz	1 kHz	10 kHz ~
6.3 ~ 100	100 ~ 680	0.80	1.00	1.23	1.34	1.50
	1000 ~ 4700	0.85	1.00	1.10	1.13	1.15
160 ~ 450	6.8 ~ 100	0.80	1.00	1.25	1.40	1.60