

# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon



Chip Type, High Voltage.  
High Reliability.  
series



For SMD



Long Life

- Chip type, High voltage and High Reliability.
- Load life of 4000 hours at +125°C.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2011/65/EU).



## Specifications

Item	Performance Characteristics						
Category Temperature Range	-40 to +125°C						
Rated Voltage Range	160 to 450V						
Rated Capacitance Range	2.2 to 27μF						
Capacitance Tolerance	±20% at 120Hz, 20°C						
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.04CV+100 (μA).						
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C						
	Rated voltage (V)	160	200	250	400	450	
	tan δ (MAX.)	0.20	0.20	0.25	0.25	0.30	
Stability at Low Temperature	Measurement frequency : 120Hz						
	Rated voltage (V)		160	200	250	400	450
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C	6	6	10	10	15
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 4000 hours at 125°C.				Capacitance change		Within ±30% of the initial capacitance value
					tan δ		300% 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 125°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.						
Resistance to soldering heat	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the characteristic requirements listed at right when they are removed from the plate.				Capacitance change		Within ±10% of the initial capacitance value
					tan δ		Less than or equal to the initial specified value
					Leakage current		Less than or equal to the initial specified value
Marking	Black print on the case top.						

## Chip Type

(φ8 × 10L, φ10)

Voltage(2G : 400V)

Lot No.

Trade mark

Series

Capacitance

Pressure relief vent

Plastic platform

0.3MAX.

φD±0.5

L±1.0

B±0.2

C±0.2

0.5MAX.

A±0.2

H

⊕Positive

⊖Negative

(mm)

φD×L

8×10

10×10

10×13.5

A

2.9

3.2

3.2

B

8.3

10.3

10.3

C

8.3

10.3

10.3

E

3.1

4.5

4.5

L

10

10

13.5

H

0.8 to 1.1

0.8 to 1.1

0.8 to 1.1

Voltage

V	160	200	250	400	450
Code	2C	2D	2E	2G	2W

Type numbering system (Example : 400V 5.6μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	L	H	2	G	5	R	6	M	N	L	1	G	S
Type			Series name		Rated voltage (400V)		Rated capacitance (5.6μF)		Capacitance tolerance (±20%)		Configuration		Taping code

## Dimensions

Cap.(μF)	V	160		200		250		400		450	
	Code	2C		2D		2E		2G		2W	
2.2	2R2									8×10	20
3.3	3R3							8×10	30		
3.9	3R9									10×10	35
5.6	5R6							10×10	45	10×13.5	40
7.5	7R5							10×13.5	50		
10	100			8×10	45						
12	120	8×10	45			10×10	45				
15	150			10×10	60	10×13.5	50				
18	180	10×10	60								
22	220			10×13.5	65						
27	270	10×13.5	65							Case size φ D×L (mm)	Rated ripple

Rated ripple current (mA Arms) at 125°C 120Hz

## Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.

CAT.8100C