

## VN Chip Type Aluminum Electrolytic Capacitors

### Features

- Bi-polar.
- Reflow soldering is available.
- Available for high density surface mounting.
- Adapted to the RoHS directive.



### Specifications

Item	Performance Characteristics																					
Operating Temperature Range	-40°C ~ +85°C																					
Rated Voltage Range	6.3~50V																					
Nominal Capacitance Range	0.1~100μF																					
Nominal Capacitance Tolerance	±20%(+20°C, 120Hz)																					
Leakage Current	$I \leq 0.01C_R U_R$ or 10(μA), Whichever is greater (at 20°C, after 2 minutes) C <sub>R</sub> : Nominal capacitance(μF), U <sub>R</sub> : Rated voltage(V)																					
Dissipation Factor(Max) (tgδ, +20°C, 120Hz)	<table border="1"> <tr> <td>U<sub>R</sub>(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tgδ</td> <td>0.26</td> <td>0.22</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.18</td> </tr> </table>	U <sub>R</sub> (V)	6.3	10	16	25	35	50	tgδ	0.26	0.22	0.20	0.20	0.20	0.18							
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tgδ	0.26	0.22	0.20	0.20	0.20	0.18																
Load Life	After 1000 hours' application of rated voltage at 85°C, with the polarity inverted every 250 hours, the capacitor shall meet the following requirement: <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation factor</td> <td>Not more than 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the initial specified value</td> </tr> </table>	Capacitance change	Within ±20% of the initial value	Dissipation factor	Not more than 200% of the initial specified value	Leakage current	Not more than the initial specified value															
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Shelf Life	After storage for 1000 hours at 105°C, the capacitors shall meet the requirement of load life above.																					
Low Temperature Stability Impedance Ratio(120Hz)	<table border="1"> <tr> <td>U<sub>R</sub>(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Z-25°C / +20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / +20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	U <sub>R</sub> (V)	6.3	10	16	25	35	50	Z-25°C / +20°C	4	3	2	2	2	2	Z-40°C / +20°C	8	6	4	4	3	3
	U <sub>R</sub> (V)	6.3	10	16	25	35	50															
	Z-25°C / +20°C	4	3	2	2	2	2															
Z-40°C / +20°C	8	6	4	4	3	3																
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement: <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±10% of the initial value</td> </tr> <tr> <td>Dissipation factor</td> <td>Not more than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the initial specified value</td> </tr> </table>	Capacitance change	Within ±10% of the initial value	Dissipation factor	Not more than the initial specified value	Leakage current	Not more than the initial specified value															
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### Diagram of Dimensions

Φ4~Φ6.3

Unit: mm

ΦD	A	B	C	E	L	H
4×5.4	1.8	4.3	4.3	1.0	5.4	0.5~0.8
5×5.4	2.1	5.3	5.3	1.3	5.4	
6.3×5.4	2.4	6.6	6.6	2.2	5.4	
6.3×7.7	2.4	6.6	6.6	2.2	7.7	

Diagram labels: voltage (电压), series (型号), capacitance (容量), plastic platform (座板), 0.3MAX, C±0.2, 0.5MAX, E, A±0.2, B±0.2, L±0.2, Φ6.3×7.7 L±0.3.

**Nominal capacitance, rated voltage, rated ripple current and case size table**

V Item Cap.(μF)	6.3		10		16		25		35		50	
	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)	ΦD×L (mm)	I~ (mA)
0.1											4×5.4	2.3
0.22											4×5.4	3.3
0.33											4×5.4	4.1
0.47											4×5.4	4.9
1.0											4×5.4	8.4
2.2									4×5.4	10	5×5.4	13
3.3							4×5.4	13	5×5.4	17	5×5.4	17
4.7					4×5.4	14	5×5.4	20	5×5.4	21	6.3×5.4	20
10			4×5.4	18	5×5.4	26	6.3×5.4	35	6.3×5.4	35	6.3×7.7	36
22	5×5.4		6.3×5.4	40	6.3×5.4	45	6.3×7.7	50	6.3×7.7	54		
33	6.3×5.4		6.3×5.4	50	6.3×5.4	55	6.3×7.7	61				
47	6.3×5.4		6.3×7.7	61	6.3×7.7	75						
100	6.3×7.7											

I~ =Rated ripple current (mA) (85° C ,120Hz)

**Frequency coefficient of ripple current**

Frequency(Hz)	50Hz	120Hz	300Hz	1kHz	≥ 10KHz
Coefficient	0.70	1.00	1.17	1.36	1.50