

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon



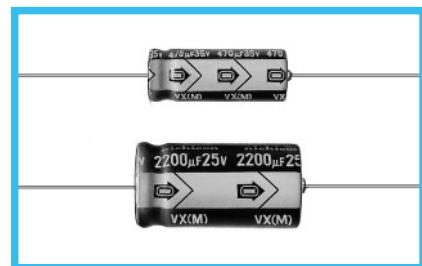
Standard, For General Purposes - Axial Lead Type

(02 type) series



Anti-Solvent
Feature
(Through 100V only)

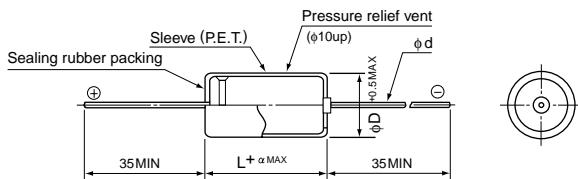
- Axial lead type of standard series for general purposes.
- Compliant to the RoHS directive (2002/95/EC).



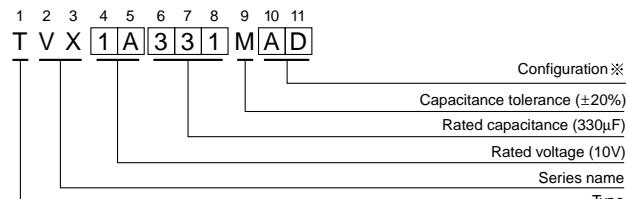
■ Specifications

Item	Performance Characteristics										
Category Temperature Range	-40 to +85°C (6.3 to 250V), -25 to +85°C (315 to 450V)										
Rated Voltage Range	6.3 to 450V										
Rated Capacitance Range	0.47 to 10000μF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	Rated voltage (V)	6.3 to 100					160 to 450				
	Leakage current	After 1 minute's application of rated voltage, not more than 0.03CV or 4 (μA), whichever is greater.					In case of CV ≤ 1000 After 1 minute's application of rated voltage, not more than 0.1CV+40 (μA).				
Tangent of loss angle (tan δ)	In case of CV > 1000 After 1 minute's application of rated voltage, not more than 0.04CV+100 (μA).										
	Rated voltage (V)	6.3	10	16	25	35	50	63 to 100	160 to 315	350 to 450	
Stability at Low Temperature	tan δ (MAX.)	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.25	
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.										
Endurance	Measurement frequency : 120Hz, Temperature : 20°C										
	Rated voltage (V)	6.3	10	16	25	35 to 100	160 to 250	315 · 350	400 · 450		
Shelf Life	Impedance ratio Z-25°C / Z+20°C	4	3	2	2	2	4	6	15		
	ZT / Z20 (MAX.)	10	8	6	4	3	12	—	—		
Marking	Measurement frequency : 120Hz										
	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									
	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									
	Printed with white color letter on purple blue sleeve.										

■ Axial Lead Type



Type numbering system (Example : 10V 330μF)



※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
5 to 8	AD
10 to 18	CD

Please refer to page 22 about the taped product spec.
Please refer to page 4 for the minimum order quantity.

● Dimension table in next page.

CAT.8100Z

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VX (02 type) series

■Dimensions

Cap.(μ F)	V	6.3	10	16	25	35	50	63	100
	Code	0J	1A	1C	1E	1V	1H	1J	2A
0.47	R47						5×12	5	
1	010						5×12	10	
2.2	2R2						5×12	23	
3.3	3R3						5×12	28	
4.7	4R7						5×12	34	
10	100						5×12	50	5×12 6.3×12 60
22	220					5×12	70	6.3×12 85 6.3×12 90	8×16 120
33	330				5×12	80	6.3×12 90 6.3×16 110	6.3×16 120	8×16 150
47	470			5×12	85	6.3×12 100	6.3×16 120 6.3×16 130	8×16 160	8×20 190
100	101	5×12	110	6.3×12	130	6.3×16	160	6.3×16	170 8×16 220 8×20 260 10×26 340
220	221	6.3×16	200	6.3×16	210	8×16	260	8×16	280 8×20 340 10×21 410 10×26 480 13×26 560
330	331	6.3×16	250	8×16	300	8×16	320	8×20	380 10×21 460 10×26 560 13×26 650 13×31.5 750
470	471	8×16	330	8×16	350	8×20	430	10×26	510 10×26 610 13×26 730 13×31.5 840 16×31.5 970
1000	102	10×21	600	10×21	640	10×26	770	13×26	900 13×31.5 1060 16×31.5 1260 16×31.5 1330
2200	222	13×26	1020	13×26	1090	13×31.5	1180	16×31.5	1480 16×31.5 1580 18×41 1920
3300	332	13×26	1200	13×31.5	1390	16×31.5	1620	16×41.5	1710 16×41.5 2050
4700	472	16×31.5	1500	16×31.5	1730	16×41.5	1840	18×41	2170
6800	682	16×31.5	1840	16×41.5	1930	18×41	2310		
10000	103	16×41.5	2260	18×41	2350				

Cap.(μ F)	V	160	200	250	315	350	400	450
	Code	2C	2D	2E	2F	2V	2G	2W
1	010	6.3×12	13	6.3×12	13	6.3×16	14	6.3×16
2.2	2R2	6.3×16	23	6.3×16	23	8×16	27	8×16
3.3	3R3	8×16	33	8×16	33	8×16	36	8×20
4.7	4R7	8×16	39	8×16	39	8×20	45	10×21
10	100	8×20	60	10×21	70	10×21	80	13×26
22	220	10×26	120	13×26	140	13×26	140	13×31.5
33	330	13×26	170	13×26	170	13×31.5	190	16×31.5
47	470	13×31.5	230	13×31.5	230	16×31.5	260	16×41.5
100	101	16×41.5	430	16×41.5	430	16×41.5	430	Case size
								Rated ripple ϕ D×L (mm)
								ripple

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

●Frequency coefficient of rated ripple current

V	Cap.(μ F)	Frequency	120 Hz	300 Hz	1kHz	10kHz or more
		0.47 to 47	1.00	1.35	1.57	2.00
6.3 to 100		100 to 470	1.00	1.23	1.34	1.50
		1000 to 10000	1.00	1.10	1.13	1.15
160 to 450		1 to 100	1.00	1.25	1.40	1.60