



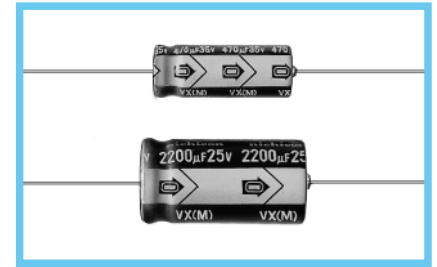
Standard, For General Purposes - Axial Lead Type

(02 type) series



Anti-Solvent
Feature
(Through 100V only)

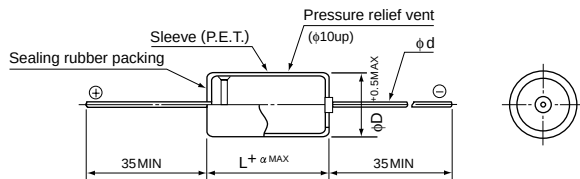
- Axial lead type of standard series for general purposes.
- Adapted to the RoHS directive (2002/95/EC).



Specifications

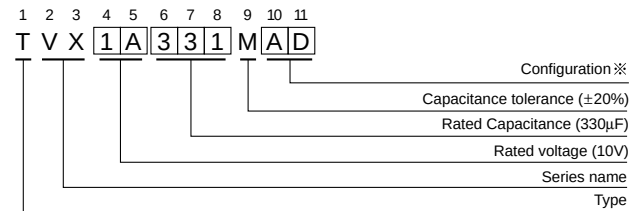
Item	Performance Characteristics									
Category Temperature Range	-40 ~ +85°C (6.3 ~ 250V), -25 ~ +85°C (315 ~ 450V)									
Rated Voltage Range	6.3 ~ 450V									
Rated Capacitance Range	0.47 ~ 10000μF									
Capacitance Tolerance	±20% at 120Hz, 20°C									
Leakage Current	Rated voltage (V)	6.3 ~ 100					160 ~ 450			
	Leakage current	After 1 minute's application of rated voltage, not more than 0.03CV or 4 (μA) , whichever is greater. After 2 minutes' application of rated voltage, not more than 0.01CV or 3 (μA) , whichever is greater.					In case of CV ≦ 1000 After 1 minute's application of rated voltage, not more than 0.1CV+40 (μA) . In case of CV > 1000 After 1 minute's application of rated voltage, not more than 0.04CV+100 (μA) .			
tan δ	Measurement frequency : 120Hz, Temperature : 20°C									
	Rated voltage (V)	6.3	10	16	25	35	50	63 ~ 100	160 ~ 315	350 ~ 450
	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.										
Stability at Low Temperature	Measurement frequency : 120Hz									
	Rated voltage (V)		6.3	10	16	25	35 ~ 100	160 ~ 250	315 ~ 350	400 ~ 450
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	4	3	2	2	2	4	6	15
Endurance	After 2000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.					Capacitance change		Within ±20% of initial value		
						tan δ		200% or less of initial specified value		
						Leakage current		Initial specified value or less		
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the characteristic requirements at right.					Capacitance change		Within ±20% of initial value		
						tan δ		200% or less of initial specified value		
						Leakage current		Initial specified value or less		
Marking	Printed with white color letter on black sleeve.									

Axial Lead Type



		(mm)		
α	(φD < 10) 1	φD	5 ~ 13	16 ~ 18
	(φD ≥ 10) 2	φd	0.6	0.8

Type numbering system (Example : 10V 330μF)



※ Configuration

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

Please refer to page 23 about the taped product spec.
Please refer to page 3 for the minimum order quantity.

● Dimension table in next page.

■Dimensions

V		6.3	10	16	25	35	50	63	100
Cap.(μF)	Code	0J	1A	1C	1E	1V	1H	1J	2A
0.47	R47						5×12	5	5×12
1	010						5×12	10	5×12
2.2	2R2						5×12	23	5×12
3.3	3R3						5×12	28	5×12
4.7	4R7						5×12	34	5×12
10	100						5×12	50	5×12
22	220					5×12	70	6.3×12	85
33	330				5×12	80	6.3×12	90	6.3×16
47	470			5×12	85	6.3×12	100	6.3×16	120
100	101	5×12	110	6.3×12	130	6.3×16	160	6.3×16	170
220	221	6.3×16	200	6.3×16	210	8×16	260	8×16	280
330	331	6.3×16	250	8×16	300	8×16	320	8×20	340
470	471	8×16	330	8×16	350	8×20	430	10×26	510
1000	102	10×21	600	10×21	640	10×26	770	13×26	900
2200	222	13×26	1020	13×26	1090	13×31.5	1180	16×31.5	1480
3300	332	13×26	1200	13×31.5	1390	16×31.5	1620	16×41.5	1710
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				

V		160	200	250	315	350	400	450
Cap.(μF)	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	33	8×20
4.7	4R7	8×16	39	8×16	39	8×20	45	8×20
10	100	8×20	60	10×21	70	10×21	45	10×21
22	220	10×26	120	13×26	140	13×26	80	13×26
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	16×31.5
100	101	16×41.5	430	16×41.5	430	16×41.5	260	16×41.5

Rated Ripple (mA) at 85°C 120Hz

●Frequency coefficient of rated ripple current

V	Cap.(μF)	Frequency(Hz)	120	300	1k	10k ~
6.3 ~ 100	~ 47	~ 47	1.00	1.35	1.57	2.00
		100 ~ 470	1.00	1.23	1.34	1.50
		1000 ~ 10000	1.00	1.10	1.13	1.15
160 ~ 450	1 ~ 100		1.00	1.25	1.40	1.60