

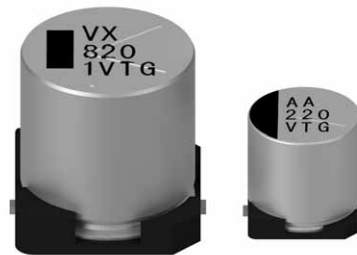
TGV SERIES

UPGRADE

Load Life : 125°C 3000~5000 hours Low ESR

- ESR standard after endurance test. ($\phi 8 \cdot \phi 10$)
- AEC-Q200.

RoHS
compliance



◆SPECIFICATIONS

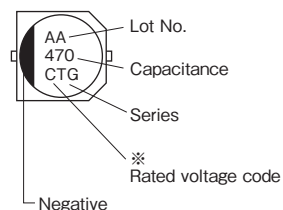
Items	Characteristics																															
Category Temperature Range	−40~+125℃																															
Rated Voltage Range	16~50Vdc																															
Capacitance Tolerance	±20% (20℃,120Hz)																															
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater.(After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Capacitance (μF) V=Rated Voltage压(Vdc)																															
Dissipation Factor(MAX) (tanδ)	<table border="1"><thead><tr><th>Rated Voltage (Vdc)</th><th>16</th><th>25</th><th>35</th><th>50</th></tr></thead><tbody><tr><td>φ8~φ10</td><td>0.23</td><td>0.18</td><td>0.16</td><td>0.14</td></tr><tr><td>φ12.5~φ18</td><td>0.18</td><td>0.16</td><td>0.14</td><td>0.12</td></tr></tbody></table> (20℃,120Hz) When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with Increase of every 1000 μF.					Rated Voltage (Vdc)	16	25	35	50	φ8~φ10	0.23	0.18	0.16	0.14	φ12.5~φ18	0.18	0.16	0.14	0.12												
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φ12.5~φ18	0.18	0.16	0.14	0.12																												
Endurance	After applying rated voltage for specified time at 125℃, the capacitors shall meet the following requirements. <table border="1"><tbody><tr><td>Capacitance Change</td><td colspan="4">Within ±30% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td colspan="4">Not more than 300% of the specified value.</td></tr><tr><td>Leakage Current</td><td colspan="4">Not more than the specified value.</td></tr></tbody></table> <table border="1"><thead><tr><th></th><th colspan="2">16~35Vdc</th></tr><tr><th></th><th>8×10.5</th><th>10×10.5</th></tr></thead><tbody><tr><td>20℃</td><td>0.6</td><td>0.4</td></tr><tr><td>−40℃</td><td>4.5</td><td>3.5</td></tr></tbody></table> (Ω/100kHz) ESR standard after endurance test (125℃, 2000 hrs with rated voltage applied)					Capacitance Change	Within ±30% of the initial value.				Dissipation Factor	Not more than 300% of the specified value.				Leakage Current	Not more than the specified value.					16~35Vdc			8×10.5	10×10.5	20℃	0.6	0.4	−40℃	4.5	3.5
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"><thead><tr><th>Rated Voltage (Vdc)</th><th>16</th><th>25</th><th>35</th><th>50</th></tr></thead><tbody><tr><td>Z(−40℃)/Z(20℃)</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></tbody></table> (120Hz)					Rated Voltage (Vdc)	16	25	35	50	Z(−40℃)/Z(20℃)	3	3	3	3																	
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Z(−40℃)/Z(20℃)	3	3	3	3																												

◆MULTIPLIER FOR RIPPLE CURRENT

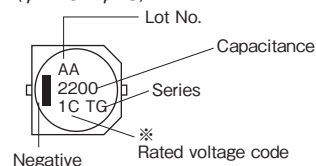
Frequency (Hz)	120	1k	10k	100k≤
Coefficient				
33 μF	0.45	0.75	0.90	1.00
47~100 μF	0.50	0.80	0.95	1.00
220~3300 μF	0.60	0.85	0.95	1.00

◆MARKING

〈 $\phi 8, \phi 10$ 〉



〈 $\phi 12.5 \sim \phi 18$ 〉



※ Voltage code

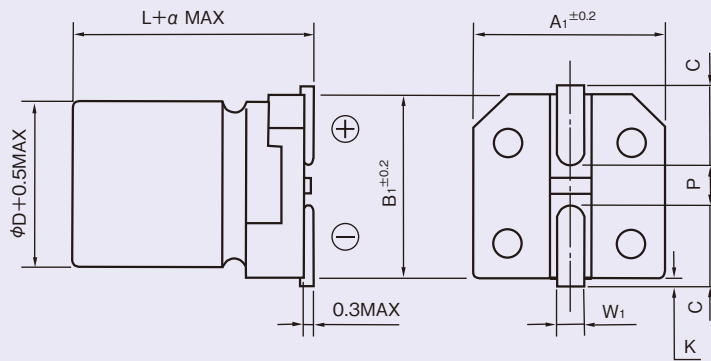
Rated voltage (Vdc)	16	25	35	50
Voltage code				
$\phi D \leq 10$	C	E	V	H
$\phi D \geq 12.5$	1C	1E	1V	1H

◆PART NUMBER

□□□ Rated Voltage TGV Series □□□□□ Capacitance M Capacitance Tolerance □□□ Option D×L Case Size

◆ DIMENSIONS

(mm)



φD	L	A1	B1	C	W1	P	K	α
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1	0.5Max	0
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5	0.5Max	0
12.5	13.5	13	13	4.9	0.8~1.1	4.5	0.7±0.4	0.5
12.5	16	13	13	4.9	0.8~1.1	4.5	0.7±0.4	0.5
16	16.5	17	17	6	1.0~1.6	6.8	0.7±0.4	0.5
16	21.5	17	17	6	1.0~1.6	6.8	0.7±0.4	0.5
18	16.5	19	19	7	1.0~1.6	6.8	0.7±0.4	0.5
18	21.5	19	19	7	1.0~1.6	6.8	0.7±0.4	0.5

◆ STANDARD SIZE

Size φD×L (mm), Rated Ripple Current (mA r.m.s./125°C, 100kHz), ESR (Ω MAX/100kHz)

Vdc	Cap (μF)	Size (φD×L)	Ripple	ESR	
				20°C	-40°C
16	100	8×10.5	350	0.150	3.0
	220	8×10.5	350	0.150	3.0
	330	10×10.5	550	0.120	2.0
	470	10×10.5	550	0.120	2.0
	820	12.5×13.5	850	0.092	1.1
	1000	12.5×16	1000	0.074	0.9
	1500	16×16.5	1200	0.066	0.7
	1800	18×16.5	1300	0.064	0.6
	2200	16×21.5	1650	0.041	0.4
	3300	18×21.5	1800	0.039	0.3
25	100	8×10.5	350	0.150	3.0
	220	8×10.5	350	0.150	3.0
		10×10.5	550	0.120	2.0
	330	10×10.5	550	0.120	2.0
	680	12.5×13.5	850	0.092	1.1
	820	12.5×16	1000	0.074	0.9
	1200	16×16.5	1200	0.066	0.7
	1500	18×16.5	1300	0.064	0.6
	2200	16×21.5	1650	0.041	0.4
	2700	18×21.5	1800	0.039	0.3
35	47	8×10.5	350	0.150	3.0
	100	8×10.5	350	0.150	3.0
		10×10.5	550	0.120	2.0
	220	10×10.5	550	0.120	2.0
	470	12.5×13.5	850	0.092	1.1
	560	12.5×16	1000	0.074	0.9
	820	16×16.5	1200	0.066	0.7
	1000	18×16.5	1300	0.064	0.6
	1500	16×21.5	1650	0.041	0.4
	1800	18×21.5	1800	0.039	0.3
50	33	8×10.5	300	0.340	6.7
	47	8×10.5	300	0.340	6.7
		10×10.5	500	0.220	4.4
	100	10×10.5	500	0.220	4.4
	360	12.5×16	900	0.150	3.0
	510	16×16.5	950	0.120	2.0
	680	18×16.5	1000	0.110	1.8
	820	16×21.5	1300	0.073	1.3
	1200	18×21.5	1450	0.066	1.1