

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



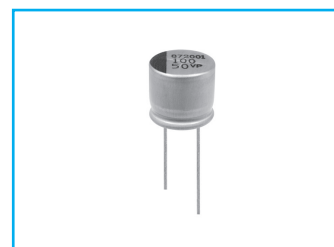
Upgrade

VP

135°C, Long Life, Low Impedance Series

- Applied Laminated case series
- Suited for automobile applications
- Complied to the RoHS directive
- AEC-Q200 compliant. Please contact us for details

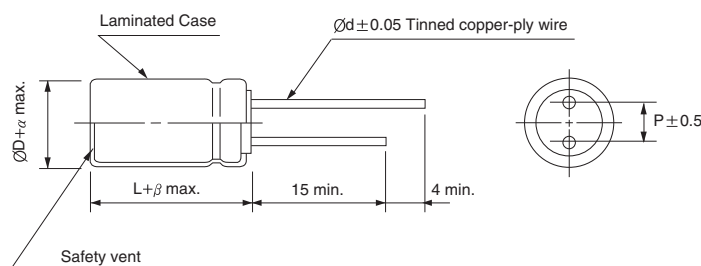
RB → **VP**
Long Life
High Temp.



Item	Characteristics				
Operating temperature range	-40 ~ +135℃				
Leakage current max.	I = 0.01CV or 3μA whichever is greater (after 2 minute)				
Capacitance tolerance	±20% at 120Hz, 20℃				
Dissipation factor max. (at 120Hz, 20℃)	Capacitance > 1000μF : tanδ increases by 0.02 for each 1000μF from below value.				
	Rated Voitage(V)	10	16	25	35
	tanδ	0.20	0.16	0.14	0.12
Low temperature characteristics (Impedance ratio at 120Hz)	WV	10	16	25	35
	Z-25℃/Z+20℃	3	2	2	2
	Z-40℃/Z+20℃	6	4	3	3
Load life (after application of the rated voltage for 3000 hours at 135℃)	Leakage current		Less than specified value		
	Capacitance change		Within ±30% of initial value		
	tanδ		Less than 300% of specified value		
Shelf life (at 135℃)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20℃ by the KS C IEC 60384 - 4				

DRAWING

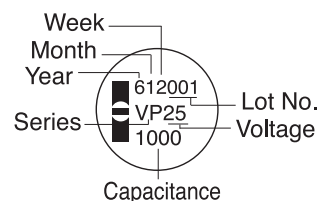
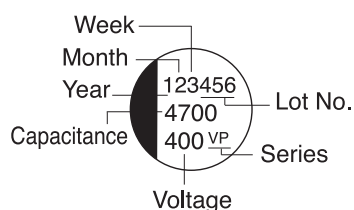
Unit : mm



ØD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
Ød	0.6	5.0	0.8	0.8
α	0.5			
β	2.0			

(Ø10)

(Ø12.5)



MINIATURE TYPES

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency μF	120Hz	1kHz	10kHz	50kHz	100kHz ≤
~ 330	0.50	0.85	0.95	0.97	1.00
470 ~ 1500	0.55	0.90	0.98	0.99	1.00
2200 ~	0.60	0.95	1.00	1.00	1.00

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

VP series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item μF	10			16		
	$\varnothing\text{D} \times \text{L}$ (mm)	Impedance (Ω)max. 20°C 100kHz	Ripple current (mA rms) 135°C 100kHz	$\varnothing\text{D} \times \text{L}$ (mm)	Impedance (Ω)max. 20°C 100kHz	Ripple current (mA rms) 135°C 100kHz
470	10 × 12.5	0.15	690	10 × 12.5	0.10	960
1000	10 × 20	0.07	1005	10 × 20	0.060	1150
2200	12.5 × 25	0.050	1280	12.5 × 25	0.060	1430
3300	12.5 × 30	0.050	1900	12.5 × 30	0.050	2300
4700	12.5 × 34.5	0.040	2300	12.5 × 34.5	0.040	2550
	16 × 25	0.035	2200	16 × 25	0.035	2440
5600	18 × 25	0.030	3300	18 × 25	0.030	3660
6800	18 × 31.5	0.028	3600	18 × 31.5	0.028	4000

WV Item μF	25			35		
	$\varnothing\text{D} \times \text{L}$ (mm)	Impedance (Ω)max. 20°C 100kHz	Ripple current (mA rms) 135°C 100kHz	$\varnothing\text{D} \times \text{L}$ (mm)	Impedance (Ω)max. 20°C 100kHz	Ripple current (mA rms) 135°C 100kHz
220				10 × 12.5	0.15	620
330				10 × 16	0.10	800
470	10 × 20	0.10	1130	10 × 20	0.073	960
1000	12.5 × 25	0.060	1800	12.5 × 30	0.040	1430
1500	12.5 × 30	0.055	2000	16 × 25	0.038	2100
2200	12.5 × 30	0.050	2300	18 × 25	0.035	2500
	16 × 25	0.050	2200			
3300	18 × 25	0.045	3300	18 × 31.5	0.032	3800
4700	18 × 31.5	0.040	3600			