

YA Series

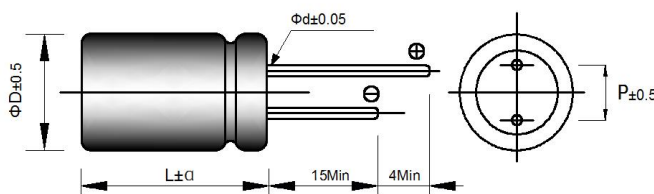
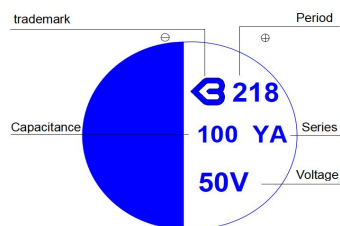
- High reliability hybrid capacitors for automotive equipment electronics
- Endurance with ripple current : 5000~10000 hours at 105°C
- High Voltage: 16~250V
- RoHS compliant
- Halogen Free
- AEC-Q200 compliant



◆ Specifications

Items	Characteristics		
Category			
Temperature Range	-55 ~ +105°C		
Rated Voltage Range	16~250V		
Capacitance tolerance	±20%(M) (at 20°C,120Hz)		
Leakage Current	≤0.01CV or 10μA (The bigger) After 2 minutes applied for rated voltage at 20°C, less than or equal to the specified value.		
tanδ	Less than or equal to the specified (at 20°C,120Hz)		
Dissipation Factor	Z(-55°C)/Z(+20°C)	≅ 0.75 to 1.5	(100KHz)
	Z(+105°C)/Z(+20°C)	≅ 0.75 to 2.0	
Low Temperature Characteristics (Max.Impedance Ratio)	ΦD=Φ6.3=5,000hrs, ΦD ≧ Φ8=10,000hrs; The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 to 10,000 hours at 105°C. ΦD=Φ6.3=5,000hrs, ΦD ≧ Φ8=10,000hrs;		
	Appearance	No significant damage	
	Capacitance change	≅ ±30% of the initial value	
	D.F.(tanδ)	≅ 200% of the specified value	
	ESR	≅ 200% of the specified value	
	Leakage current	≅ The specified value	
Endurance	The specifications listed below shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90%~ 95% RH.		
	Appearance	No significant damage	
	Capacitance change	≅ ±30% of the initial value	
	D.F.(tanδ)	≅ 200% of the specified value	
	ESR	≅ 200% of the specified value	
	Leakage current	≅ The specified value	
Damp Heat (Steady State)	Surge Voltage=Rated voltage * 1.25(V) The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 15~35°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30seconds		
	Appearance	No significant damage	
	Capacitance change	≅ ±30% of the initial value	
	D.F.(tanδ)	≅ 200% of the specified value	
	ESR	≅ 200% of the specified value	
	Leakage current	≅ The specified value	
(Surge Voltage)	Surge Voltage=Rated voltage * 1.25(V) The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 15~35°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30seconds		
	Appearance	No significant damage	
	Capacitance change	≅ ±30% of the initial value	
	D.F.(tanδ)	≅ 200% of the specified value	
	ESR	≅ 200% of the specified value	
	Leakage current	≅ The specified value	

◆ Dimensions (mm)



(Unit:mm)

Coated Case	6.3*8	8*12	10*10	10*12
ΦD	6.3	8	10	10
L	L±1.5Max			
Φd	0.5	0.5	0.6	0.6
p	2.5	3.5	5.0	5.0

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◆ Standard Ratings

Rated voltage (V)	Rated capacitance(μ F)	Case size Φ D*L(mm)	Leakage current (μ A)	ESR(m Ω) at 20 $^{\circ}$ C, 100 KHz	Rated ripple current (mA _{rms} /105 $^{\circ}$ C/100kHz)	tan δ (120Hz)
16	100	5*8	16.0	25	2000	0.16
	220	6.3*8	35.2	20	3000	0.16
	270	6.3*8	43.2	20	3200	0.16
	330	6.3*9	52.8	25	3500	0.16
	470	8*8	75.2	20	2600	0.16
	560	8*12	89.6	15	3000	0.16
25	68	6.3*8	17.0	30	2900	0.12
	100	6.3*8	25.0	25	2900	0.12
	220	6.3*8	55.0	20	3000	0.12
	330	6.3*11	82.5	20	3600	0.12
35	68	6.3*8	23.8	40	2800	0.12
	100	6.3*8	35.0	25	2800	0.12
	220	8*12	77.0	20	3500	0.12
	330	10*10	115.5	20	4000	0.12
50	33	6.3*8	16.5	50	2000	0.10
	47	6.3*11	23.5	45	2200	0.10
	100	8*12	50.0	25	3000	0.10
	100	10*12	50.0	20	3500	0.10
63	10	6.3*8	10.0	70	1000	0.08
	22	6.3*8	13.9	40	1800	0.08
	33	8*10	20.8	40	2300	0.08
	47	8*12	20.8	30	2500	0.08
	56	8*12	35.3	22	2600	0.08
	100	10*12	63.0	20	3000	0.08
80	22	8*10	17.6	45	2500	0.08
	33	10*10	26.4	50	2800	0.08
	100	10*16	80.0	25	3000	0.08
100	22	8*12	22.0	40	2000	0.08
	47	10*12	47.0	35	2800	0.08
	100	10*16	0.0	35	3500	0.08
160	10	8*12	16.0	80	1600	0.08
250	6.8	10*12	17.0	200	1000	0.08

◆ Rated Ripple Current Coefficient

Frequency(Hz)	100Hz \leq f<1kHz	1kHz \leq f<10kHz	10kHz \leq f<100kHz	100kHz \leq f
4.7<C \leq 33	0.05	0.32	0.67	1.00
33<C	0.10	0.35	0.70	1.00