

TD* Series

- Low ESR ● High Voltage, Long Life. ● 135°C, 4,000hrs.
- RoHS compliant ● AEC-Q200 qualified

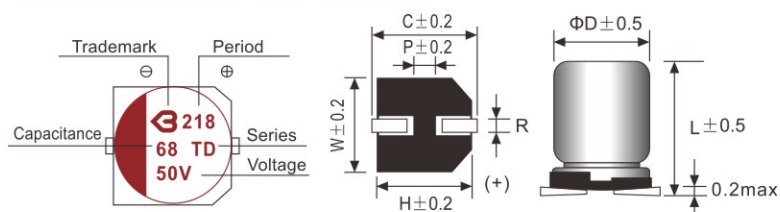


◆ Specifications

Items	Characteristics		
Category Temperture Range	-55 ~ +135℃		
Rated Voltage Range	25~63V		
Capacitance tolerance	±20%(M) (at 20℃,120Hz)		
Leakage Current	I≤0.01CV or 10μA (The bigger) After 2 minutes applied for rated voltage at 20℃, less than or equal to the specified value.		
tan δ Dissipation Factor	Less than or equal to the specified (at 20℃,120Hz)		
Low Temperture Characteristics (Max.Impedance Ratio)	Z(-55℃)/Z(+20℃)	≒0.75 to 1.5	(100KHz)
	Z(+135℃)/Z(+20℃)	≒0.75 to 2.0	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 4,000 at 135℃.		
	Appearance	No significant damage	
	Capacitance change	≒±30% of the initial value	
	D.F.(tan δ)	≒200% of the specified value	
	ESR	≒200% of the specified value	
	Leakage current	≒The specified value	
Damp Heat (Steady State)	The specifications listed below shall be met when the capacitors are restored to 20℃ after the rated voltage is applied for 1000 hours at 60℃, 90% ~ 95% RH.		
	Appearance	No significant damage	
	Capacitance change	≒±30% of the initial value	
	D.F.(tan δ)	≒200% of the specified value	
	ESR	≒200% of the specified value	
	Leakage current	≒The specified value	
(Surge Voltage)	Surge Voltage=Rated voltage * 1.15(V) The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 15~35℃ for 30 seconds through aprotective resistor (R=1kΩ) and discharge for 5 minutes 30 seconds		
	Appearance	No significant damage	
	Capacitance change	≒±30% of the initial value	
	D.F.(tan δ)	≒200% of the specified value	
	ESR	≒200% of the specified value	
	Leakage current	≒The specified value	

◆ Dimensions (mm)

(Unit:mm)



Size	ΦD	L	W	H	C	R	P
10*12.5	10	12.5	10.3	10.3	11	0.7~1.3	4.6
10*16.5	10	16.5	10.3	10.3	11	0.7~1.3	4.6

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◆ Standard Ratings

Rated voltage (V)	Rated capacitance(μ F)	Case size $\Phi D \times L$ (mm)	Leakage current (μ A)	ESR(m Ω) at 20°C, 100 kHz	Rated ripple current (mA _{rms} /135°C/100kHz)	Tan δ (120Hz)
25	470	10*12.5	117.5	14	2500	0.14
	560	10*16.5	140.0	11	2900	0.14
35	330	10*12.5	115.5	14	2500	0.12
	470	10*16.5	164.5	11	2900	0.12
50	150	10*12.5	75.0	17	2250	0.10
	220	10*16.5	110.0	13	2600	0.10
63	100	10*12.5	63.0	19	2100	0.08
	150	10*16.5	94.5	15	2400	0.08

◆ Rated Ripple Current Coefficient

Frequency(Hz)	100Hz $\leq f < 1$ kHz	1kHz $\leq f < 10$ kHz	10kHz $\leq f < 100$ kHz	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