

TF* Series

- Low ESR ● High Voltage, Long Life. ● 150°C, 1,000hrs.
- RoHS compliant ● AEC-Q200 qualified

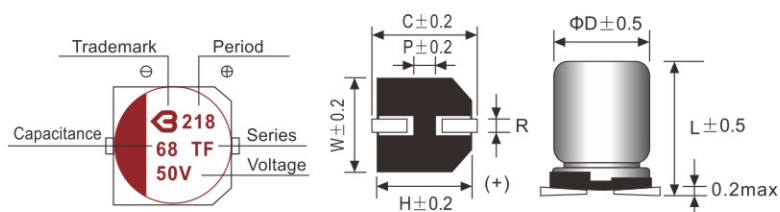


◆ Specifications

Items	Characteristics		
Category Temperture Range	-55 ~ +150℃		
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(+150℃)/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 1,000 hours at 150℃.		
	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
8*10.5	8	10.5	8.3	8.3	9	0.7~1.1	3.2
10*10.5	10	10.5	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} /150°C/100kHz)	Tan δ (120Hz)
25	150	8*10.5	37.5	27	800	0.14
	270	10*10.5	67.5	20	1000	0.14
35	100	8*10.5	35.0	30	770	0.12
	150	10*10.5	52.5	23	950	0.12
50	56	8*10.5	28.0	35	700	0.10
	100	10*10.5	50.0	28	900	0.10
63	33	8*10.5	20.8	40	650	0.08
	56	10*10.5	35.3	30	840	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