

TB Series

- Low ESR ● High Voltage, Long Life. ● 125°C, 2,000~4,000hrs.
- RoHS compliant ● AEC-Q200 qualified

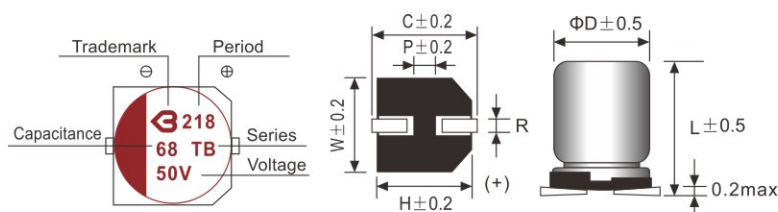


◆ Specifications

Items	Characteristics		
Category Temperture Range	-55 ~ +125℃		
Rated Voltage Range	16~250V		
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(+125℃)/Z(+20℃)	≒0.75 to 2.0	
Endurance	ΦD≒Φ6.3=2,000hrs, ΦD≒Φ8=4,000hrs; The following specifications shall be satisfied when the capacitors are restored to 20℃After the rated voltage is applied for 2,000 to 4,000 hours at 125℃. ΦD≒Φ6.3=2,000hrs, ΦD≒Φ8=4,000hrs.		
	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
5.0*5.8	5.0	5.8	5.3	6.5	5.3	0.5~0.8	1.4
6.3*7.7	6.3	7.7	6.6	6.6	7.3	0.5~0.8	2.1
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
10*12.5	10	12.5	10.3	10.3	11	0.7~1.3	4.6

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◆ Standard Ratings

Rated voltage (V)	Rated capacitance(μF)	Case size ΦD×L(mm)	Leakage current (μA)	ESR(mΩ) at 20℃, 100 kHz	Rated ripple current (mA _{rms} /125℃/100kHz)	Tan δ (120Hz)
16	120	6.3*7.7	19.2	40	1100	0.16
	270	8*10.5	43.2	26	1500	0.16
	470	10*10.5	75.2	21	2000	0.16
	560	10*12.5	89.6	15	2300	0.16
25	22	5*5.8	10.0	80	900	0.12
	33	5*5.8	10.0	80	900	0.12
	68	6.3*7.7	17.0	45	1000	0.12
	150	8*10.5	37.5	27	1300	0.12
	270	10*10.5	67.5	22	1500	0.12
	330	10*10.5	82.5	20	1500	0.12
35	10	5*5.8	10.0	100	900	0.12
	22	5*5.8	10.0	100	900	0.12
	68	6.3*7.7	23.8	60	900	0.12
	100	8*10.5	35.0	30	1200	0.12
	150	8*10.5	52.5	28	1320	0.12
	220	10*10.5	77.0	22	1600	0.12
50	10	5*5.8	10.0	120	750	0.10
	33	6.3*7.7	16.5	75	760	0.10
	47	8*10.5	23.5	48	1020	0.10
	56	8*10.5	28.0	45	1040	0.10
	100	10*10.5	50.0	30	1500	0.10
63	10	6.3*5.8	10.0	120	578	0.08
	22	6.3*7.7	13.9	80	868	0.08
	33	8*10.5	20.8	42	1000	0.08
	33	10*10.5	20.8	32	1200	0.08
	47	8*10.5	29.6	42	980	0.08
	56	10*10.5	35.3	32	1050	0.08
80	12	10*10.5	10.0	70	900	0.08
	15	10*10.5	12.0	70	900	0.08
	18	10*12.5	14.4	50	1100	0.08
100	10	10*10.5	10.0	80	800	0.08
	12	10*10.5	12.0	80	800	0.08
	15	10*12.5	15.0	60	1000	0.08
160	10	10*10.5	16.0	90	700	0.08
250	6.8	10*12.5	17.0	485	240	0.08

◆ Rated Ripple Current Coefficient

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