



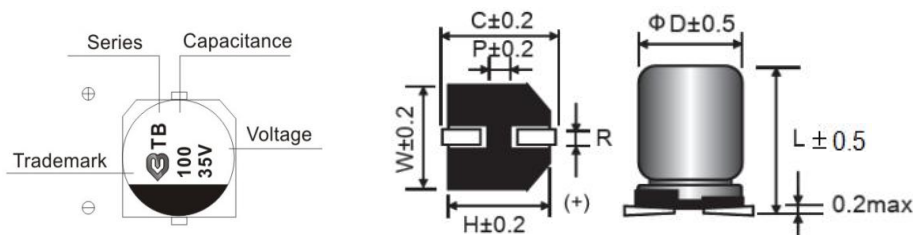
**TB Series** NF

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

◆ 规格表 Specifications

项目 Items	特性参数 Characteristics		
使用温度范围 Category Temperature Range	-55 ~ +125°C		
额定工作电压范围 Rated Voltage Range	16 ~ 125 V		
静电容量允许偏差 Capacitance tolerance	±20%(M) (at 20°C, 120Hz)		
漏电流 Leakage Current	施加额定工作电压2分钟后读数, 小于或等于规格值 (20°C) I ≤ 0.01CV 或 10μA (取大值) (The bigger) After 2 minutes applied for rated voltage at 20°C, less than or equal to the specified value.		
损耗角正切值 tanδ Dissipation Factor	小于或等于规格 Less than or equal to the specified (at 20°C, 120Hz)		
温度特性 Low Temperature Characteristics (Max Impedance Ratio)	Z(-55°C)/Z(+20°C)	≅ 0.75 to 1.5	(100KHz)
	Z(+125°C)/Z(+20°C)	≅ 0.75 to 2.0	
耐久性 Endurance	必须满足以下参数: 电容在20度的环境下储存, 在125度的环境下施加额定电压至2000到4000小时。 ΦD=Φ6.3=2,000hrs, ΦD≧Φ8=4,000hrs; The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 to 4,000 hours at 125°C. ΦD=Φ6.3=2,000hrs, ΦD≧Φ8=4,000hrs.		
	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	
耐湿负荷特性 Damp Heat (Steady State)	在60°C 温度, 湿度90%~95%RH的环境中, 施加额定电压1000小时后, 恢复到20°C后, 产品性能应满足以下要求 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	
浪涌电压特性 (Surge Voltage)	浪涌电压=额定电压* 1.15(V) Surge Voltage=Rated voltage * 1.15(V) 在通过1KΩ的电阻保护下, 15~35°C 施加浪涌电压30秒, 并且放电5分钟30秒, 电容器必须满足完成1000次的持续充放电循环。 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	

◆ 外形图 Dimensions (mm)



(Unit:mm)

Size	ΦD	L	W	H	C	R	P	V max
6.3*7.7	6.3	7.7	6.6	6.6	7.3	0.5~0.8	2.1	0.3
8*10.5	8	10.5	8.3	8.3	9	0.7~1.1	3.2	0.3
10*10.5	10	10.5	10.3	10.3	11	0.7~1.3	4.6	0.3
10*12.5	10	12.5	10.3	10.3	11	0.7~1.3	4.6	0.3

## TB Series

## ◆ 尺寸与最大纹波电流一览表 Standard Ratings

Rated voltage (V)	Rated capacitance(μF)	Case size ΦD*L(mm)	Leakage current (μA)	ESR(mΩ) at 20°C, 100 KHz	Rated ripple current (mA <sub>rms</sub> /125°C/100kHz)	tanδ (120Hz)
16 (1C)	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 (1E)	68	6.3*7.7	17	45	1000	0.16
	150	8*10.5	37.5	27	1300	0.16
	270	10*10.5	67.5	22	1500	0.16
	330	10*12.5	82.5	16	1700	0.16
35 (1V)	47	6.3*7.7	16.45	60	900	0.16
	100	8*10.5	35	30	1200	0.16
	150	10*10.5	52.5	23	1400	0.16
	220	10*12.5	77	17	1700	0.16
40 (1G)	27	6.3*7.7	10.8	70	900	0.16
	56	8*10.5	22.4	32	1200	0.16
	100	10*10.5	40	24	1400	0.16
	120	10*12.5	48	18	1600	0.16
50 (1H)	15	6.3*7.7	10	80	800	0.16
	33	8*10.5	16.5	35	1100	0.16
	56	10*10.5	28	25	1300	0.16
	82	10*12.5	41	19	1500	0.16
63 (1J)	10	6.3*7.7	10	100	700	0.16
	22	8*10.5	13.86	40	1000	0.16
	33	8*10.5	20.79	40	1000	0.16
	33	10*10.5	20.79	30	1200	0.16
	47	10*10.5	29.61	30	1200	0.16
	56	10*12.5	35.28	22	1400	0.16
80 (1K)	12	10*10.5	10	70	900	0.16
	15	10*10.5	12	70	900	0.16
	18	10*12.5	14.4	50	1100	0.16
100 (2A)	10	10*10.5	10	80	800	0.16
	12	10*10.5	12	80	800	0.16
	15	10*12.5	15	60	1000	0.16
125	10	10*10.5	12.5	90	700	0.16

## ◆ 纹波电流修正系数 Rated Ripple Current Coefficient

频率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
C>33	0.10	0.35	0.70	1.00