TS Series

High Ripple Current (高纹波)，Long Life Assurance(长寿命)

FEATURES 特点

1. High ripple current at high frequency,load life of 5000~10,000 hours at 105℃.
2. For elecronic ballast,power supply input circuit, light emitting diode lamp(LED) drive source etc.

SPECIFICATIONS 规格表

Item 项目	Performance Characteristics 特性参数							
Operation Temperature Range 工作温度范围	-40℃~ +105℃			-25~ +105℃				
Rated Working Voltage Range 额定电压范围	160 to 400 VDC			450 ~500 VDC				
Capacitance Tolerance 静电容量允许偏差	±20% (120Hz 20℃)							
Leakage Current 漏电流	LC≤0.02CV +25 (μA) Whichever is greater measured after 2 minutes application of rated working voltage at +20 ℃ 施加额定工作电压充电2分钟后读数。 [C：静电容量(uF)，V：额定电压(V)]							
Dissipaiom Factor (tan δ) 损失角正切值 (120Hz,+20℃)	Working Voltage(v)	160	200	250	350	400	450	500
	tan δ(max.)	0.15	0.15	0.15	0.20	0.20	0.20	0.20
Low Temperature characteristics 温度特性(阻抗比)	Impedance ratio max. at 120 Hz 阻抗比最大值							
	Working Voltage(V)	160	200	250	350	400	450	500
	Z(-25℃)/ Z(+20℃)	3	3	3	5	5	6	6

High Temperature Loading (Endurance) 高温负荷寿命(耐久性)

Test conditions 试验条件

Duration 持续时间	5,000 ~ 10,000 hours 详见规格表
Ambient temp. 环境温度	+105℃
Applied voltage 施加电压	DC voltage with maximum permissible ripple current specified at +105℃ 施加直流电压与额定纹波电流(所加电压峰值[DC+AC]不超过额定工作电压)

Post test requirements at +20℃ 试验后特性应满足如下要求

Leakage current 漏电流	≤Initial specified value 初始规格值
Cap. Change 静电容量变化率	within ±20% of initial measured value 初始测试值的±20%内
D.F.(tan δ) 损失角正切值	≤200% of initial specified value 2倍初始规格值
Before test requirement: Resumed 16 hours at normal temperature 测试前将电容在常温中放置16小时	

Shelf Life 高温储存寿命

Test conditions 试验条件

Duration 持续时间	1,000 hours
Ambient temp. 环境温度	+105℃
Applied voltage 施加电压	(None) 无

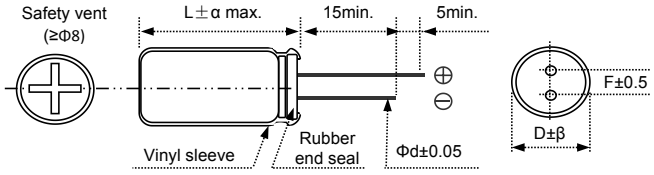
Post test requirements at +20℃ 试验后特性应满足如下要求

Leakage current 漏电流	≤Initial specified value 初始规格值
Cap. Change 静电容量变化率	within ±20% of initial measured value 初始测试值的±20%内
D.F.(tan δ) 损失角正切值	≤200% of initial specified value 2倍初始规格值

♦(Before the measurements, the capacitor shall be pretreated by applying DC working voltage for 30min, after discharged and then stored under standard atmospheric conditions for 24-48 hours) 测试前应将电容在常温中施加工作电压30分钟，放电后在标准气压下放置24~48小时

Other 其他	JIS C-5101 (IEC 60384)

CASE SIZE TABLE 尺寸图 (Unit：mm)



ΦD	8	10	13	16	18
F	3.5	5.0		7.5	
Φd	0.5 or 0.6	0.6		0.8	
α	(L<20) 1.5		(L≥20) 2.0		
β	(D<20) 0.5		(D≥20) 1.0		

Multiplier for Ripple Current vs. Frequency 纹波电流频率修正系数

Frequency Coefficient 频率系数

Cap(μF)	120 Hz	1K Hz	10K Hz	100K Hz
1~5.6	0.35	0.65	0.80	1.00
6.8~180	0.50	0.75	0.90	1.00
≧220	0.85	0.85	0.94	1.00

Multiplier for Ripple Current vs. Temperature 纹波电流温度修正系数

Temperature	45℃	60℃	70℃	85℃	95℃	105℃
Multiplier	1.8	1.5	1.45	1.3	1.2	1.0

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STANDARD RATINGS 标准品一览表

Voltage(Code)		Load life	160V(2C)		200V(2D)		250V(2E)		350V（2V）	
Cap.(μF)	Code		Case Size	R.C	Case Size	R.C	Case Size	R.C	Case Size	R.C
4.7	4P7	5,000 hrs					8×12	140	10×13	150
6.8	6P8	5,000 hrs					8×12	150	10×16	280
							8×14	180		
							10×13	250		
10	010	5,000 hrs	10×16	320	10×16	320	8×16	290	10×20	350
							10×16	320		
22	022	5,000 hrs	10×20	500	10×16	450	10×20	500	13×21	650
					10×20	500	13×17	530		
		8,000 hrs			10×16	530			13×21	480
33	033	5,000 hrs	10×20	650	13×21	650	13×21	800	16×21	900
		8,000 hrs	10×20	580	13×21	600	13×21	710	16×21	640
47	047	5,000 hrs	10×20	750	13×21	980	13×21	980	16×21	1080
		8,000 hrs	10×20	700	13×21	790	13×25	920	16×25	800
68	068	5,000 hrs	13×21	1180	13×21	1000	16×21	1300	18×25	1470
					13×25	1300				
		8,000 hrs	13×21	950	13×25	950	16×21	1000	18×25	1000
82	082	5,000 hrs			16×21	1380	18×21	1380	18×25	1530
		8,000 hrs	13×25	1060	16×21	1100	16×25	1200	18×25	1100
100	101	5,000 hrs	13×21	970						
			13×25	1420	16×21	1420	16×25	1530		
		8,000 hrs	13×25	1280	18×21	1280	18×25	1500	18×32	1200
150	151	5,000 hrs	16×25	1890	16×32	1890	18×25	1940		
		8,000 hrs	16×25	1400	18×32	1400	18×32	1800		
220	221	5,000 hrs	18×25	2370	18×36	2648				
		8,000 hrs	18×25	1500	18×36	2000	18×40	2100		

Voltage(Code)		Load life	400V(2G)		450V(2W)		500V(2H)			
Cap.(μF)	Code		Case Size	R.C	Case Size	R.C	Case Size	R.C		
1	001	5,000 hrs	8×12	60						
		8,000 hrs	8×12	41						
2.2	2P2	5,000 hrs	8×12	95						
		8,000 hrs	8×12	81						
		10,000 hrs	8×14	90						
3.3	3P3	5,000 hrs	8×12	95						
		8,000 hrs	10×13	150						
		10,000 hrs	10×13	128						
4.7	4P7	5,000 hrs	8×12	110	10×20	220				
			10×15	220						
		8,000 hrs	10×13	150						
		10,000 hrs	10×15	188	10×20	128				
5.6	5P6	5,000 hrs	10×16	250	10×20	250				
		8,000 hrs	10×16	214	10×20	144				
6.8	6P8	5,000 hrs	10×13	230	10×20	280				
			10×16	280						
		8,000 hrs	10×16	230	10×20	160				
10	010	5,000 hrs	10×15	290	13×21	450				
		8,000 hrs	10×20	350						
		10,000 hrs	10×20	300	13×21	350				
15	015	5,000 hrs	13×17	400	13×25	600	13×17	610		
		8,000 hrs	13×21	550						
		10,000 hrs	13×21	410	13×25	560				
22	022	5,000 hrs	13×21	760	16×21	730				
		8,000 hrs	13×21	680						
		10,000 hrs	13×25	500	16×21	680				
33	033	5,000 hrs	16×21	900	16×25	980				
		8,000 hrs	16×21	730	18×25	850				
47	047	5,000 hrs	16×25	1180	18×25	1200				
		8,000 hrs	16×25	840	18×32	1000				
56	'056	5,000 hrs	18×26	1250						
		8,000 hrs								
68	068	5,000 hrs	18×25	1470	18×32	1200	18×35	1050		
		5,000 hrs	18×32	1490			22×32	1200		
		8,000 hrs	18×32	1200	18×32	1140				
82	082	5,000 hrs	16×31	1200						
			18×32	1500						
			18×35	1550						
		8,000 hrs	18×40	1500						
100	101	5,000 hrs	18×32	1300	22×32	1500	22×35	1350		
			18×35	1600						
		8,000 hrs	18×40	1550						
120	121	5,000 hrs	18×40	1650	18×40	1600				
		8,000 hrs								
150	151	5,000 hrs			22×32	1650				

Maximum Allowable Ripple Current (mA rms) at 105℃ 100KHz

Case Size ΦD x L(mm)