TS 系列 SERIES

High Ripple | High Reliability | Long Life | RoHS

●全焊结构，确保可靠的电气接触性
All-welded construction ensures reliable electrical contact
●高可靠性及高耐纹波电流能力
High reliability and hing ripple current capability.
●保证 85℃、5000 小时寿命（叠加纹波电流）
Endurance with ripple current: 5000 hours at 85℃.
●应用：变频器、不间断电源、太阳能和风力发电设备
Applications: Frequency converters, Uninterruptible power supplies, Solar and Wind power generator

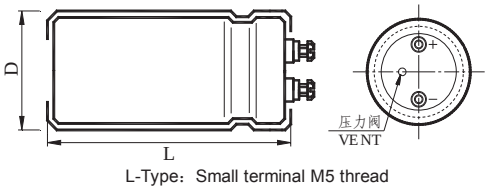
TG P105
Long life
TS

◆规格表 SPECIFICATIONS

项 目 Items	特 性 Characteristics
工作温度范围 Operating Temperature Range	−40～+85℃
额定工作电压范围 Rated Working Voltage Range	350～550V
静电容量范围 Capacitance Range	1000～18000μF
静电容量允许偏差 Capacitance Tolerance	±20% (20℃,120Hz)
损耗角正切值 Dissipation Factor（MAX） 20℃，120Hz	U_R(V) 400 450 500 550 tanδ 0.15 0.20
漏电流 Leakage Current（MAX）	I=0.01$C_R U_R$ 或 5mA 取小者 （20℃，施加额定电压 5 分钟后） I=0.01$C_R U_R$ or 5mA whichever is minimum.（at 20℃，After 5 minutes application of rated voltage） I=漏电流（μA） Leakage Current U_R=额定电压（V） Rated Voltage C_R=静电容量（μF） Rated Capacitance

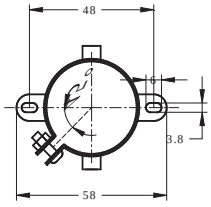
	使用寿命 Useful Life		负荷寿命 Load Life	耐久性特性 Endurance Test	高温无负荷特性 Shelf Life	
产品寿命 Life Time	10000h	>100000h	5000h	5000h	1000h	
漏电流 Leakage Current	≤规定值 ≤Specified value		≤规定值 ≤Specified value	≤规定值 ≤Specified value	≤规定值 ≤Specified value	
损耗角正切值变化率 tanδ Change	≤规定值的 300% ≤300% of specified value		≤规定值的 200% ≤200% of specified value	≤规定值的 130% ≤130% of specified value	≤规定值的 150% ≤150% of specified value	
静电容量变化率 Capacitance change	初始值±30%以内 Within±30% of initial value		初始值±20%以内 Within±20% of initial value	初始值±10%以内 Within±10% of initial value	初始值±15%以内 Within±15% of initial value	
施加条件 Condition 施加电压 Applied Voltage 施加纹波电流 Applied Ripple Current 环境温度 Applied Temperature 失效率等级 Failure Rate Level	U_R I_R 85℃ ≤1% Failure rate	U_R 1.4×I_R 40℃ ≤1% Failure rate	U_R I_R 85℃ 0%	U_R I_R=0 85℃ 0%	U_R=0 I_R=0 85℃ 0%	Back up to 20 ℃ and placed more than 24 hours. U_R to be applied for 60 min before measurement.

◆尺寸图 Dimensions
●常用端子型式代码：Terminal Code

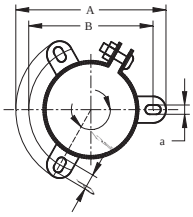


L-Type：Small terminal M5 thread
S-Type：Large terminal M6 thread

Ring Clip: T (Φ35 Standard)



Ring Clip: S (Φ51~Φ89 Standard)



Ring Clip Dimensions:

ΦD	A	B	a	b
51	73.0	63.5	4.5	7
64	85.1	76.2	4.5	7
76	98.4	88.9	4.5	7
89	111.1	101.6	4.5	7

产品详细尺寸和公差请参照 P90
For detailed dimension & tolerance, please refer to P90

●记载以外的端子形状，请另行咨询。Please consult to us for the terminal type not displayed in content.

◆产品编码体系 PART NUMBER SYSTEM
●例如：Example TS 500V5600μF Φ89×155 ±20%

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
T	S	C	5	6	2	M	8	9	1	5	5	S	V	A

15 客户特殊要求 special requirement
14 套管材质代码 Sleeve Code
13 端子型式代码 Lead Form Code
12 高度代码（例：155→155）The height of the code（mm）
10 11 直径代码（例：76→76，89→89）Diameter code（mm）
9 8 容差代码（例：±20%→M） Capacitance Tolerance code
7 容量代码（例：5600→562，10000→103）Capacitance Code（μF）
6 5 电压代码（例：400V→G，500V→C）Rated Voltage Code（V）
4 3 产品系列代码（例：TS→TS） Series Code

◆纹波电流修正系数 Rated Ripple Current Multiplies

●频率修正系数 Frequency coefficient

频率 Frequency（Hz）	50(60)	100(120)	300	1k	≥10k
系 数 Coefficient	0.70	1.00	1.10	1.30	1.40

●温度修正系数 Temperature coefficient

温度 Temperature（℃）	+40	+60	+85
系 数 Coefficient	1.89	1.67	1.00

TS SERIES

◆产品一览表 Standard Ratings

WV_{DC} (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃120Hz	Ripple Current 85℃120Hz (Arms)	Catalog Part Number
350 (400)	1200	51×80	0.15	5.5	TSH122M51080□VA
	1500	51×80	0.15	6.1	TSH152M51080□VA
	1800	51×95	0.15	7.4	TSH182M51095□VA
	2200	51×95	0.15	8.2	TSH222M51095□VA
	2700	51×130	0.15	10.2	TSH272M51130□VA
	3300	51×130	0.15	11.3	TSH332M51130□VA
	3900	64×115	0.15	12.8	TSH392M64115□VA
	4700	64×130	0.15	14.8	TSH472M64130□VA
	5600	76×115	0.15	16.3	TSH562M76115□VA
	6800	76×130	0.15	18.8	TSH682M76130□VA
	8200	76×155	0.15	22.2	TSH822M76155□VA
	10000	89×155	0.15	25.9	TSH103M89155□VA
	12000	89×155	0.15	29.1	TSH123M89155□VA
	15000	89×195	0.15	35.7	TSH153M89195□VA
	18000	89×235	0.15	41.4	TSH183M89235□VA
400 (450)	1000	51×80	0.15	5.0	TSG102M51080□VA
	1200	51×80	0.15	5.8	TSG122M51080□VA
	1500	51×95	0.15	6.7	TSG152M51095□VA
	1800	51×95	0.15	7.5	TSG182M51095□VA
	2200	51×130	0.15	9.2	TSG222M51130□VA
	2700	64×95	0.15	9.9	TSG272M64095□VA
	3300	64×115	0.15	11.8	TSG332M64115□VA
	3900	64×130	0.15	13.5	TSG392M64130□VA
	4700	76×115	0.15	14.9	TSG472M76115□VA
	5600	76×130	0.15	17.0	TSG562M76130□VA
	6800	76×155	0.15	20.2	TSG682M76155□VA
	8200	89×155	0.15	23.5	TSG822M89155□VA
	10000	89×155	0.15	26.6	TSG103M89155□VA
	12000	89×195	0.15	31.0	TSG123M89195□VA
	15000	89×235	0.15	37.5	TSG153M89235□VA
450 (500)	1000	51×80	0.15	5.1	TSE102M51080□VA
	1200	51×95	0.15	6.0	TSE122M51095□VA
	1500	51×115	0.15	7.2	TSE152M51115□VA
	1800	51×130	0.15	8.3	TSE182M51130□VA

WV_{DC} (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃120Hz	Ripple Current 85℃120Hz (Arms)	Catalog Part Number
450 (500)	2200	64×95	0.15	9.0	TSE222M64095□VA
	2700	64×115	0.15	10.7	TSE272M64115□VA
	3300	64×130	0.15	12.4	TSE332M64130□VA
	3900	76×115	0.15	13.6	TSE392M76115□VA
	4700	76×130	0.15	15.6	TSE472M76130□VA
	5600	76×155	0.15	18.3	TSE562M76155□VA
	6800	89×155	0.15	21.4	TSE682M89155□VA
	8200	89×155	0.15	23.5	TSE822M89155□VA
	10000	89×195	0.15	28.3	TSE103M89195□VA
	12000	89×235	0.15	33.6	TSE123M89235□VA
500 (550)	1000	51×115	0.20	4.2	TSC102M51115□VA
	1200	64×95	0.20	4.8	TSC122M64095□VA
	1500	64×95	0.20	5.5	TSC152M64095□VA
	1800	64×115	0.20	6.5	TSC182M64115□VA
	2200	64×130	0.20	7.7	TSC222M64130□VA
	2700	76×115	0.20	8.8	TSC272M76115□VA
	3300	76×130	0.20	10.4	TSC332M76130□VA
	3900	76×130	0.20	11.4	TSC392M76130□VA
	4700	89×130	0.20	13.7	TSC472M89130□VA
	5600	89×155	0.20	15.9	TSC562M89155□VA
	6800	89×170	0.20	18.5	TSC682M89170□VA
	8200	89×195	0.20	21.4	TSC822M89195□VA
550 (600)	1000	51×130	0.20	4.3	TSZ102M51130□VA
	1200	64×115	0.20	5.0	TSZ122M64115□VA
	1500	64×130	0.20	6.0	TSZ152M64130□VA
	1800	76×105	0.20	6.6	TSZ182M76105□VA
	2200	76×115	0.20	7.8	TSZ222M76115□VA
	2700	76×130	0.20	8.9	TSZ272M76130□VA
	3300	76×155	0.20	10.5	TSZ332M76155□VA
	3900	76×155	0.20	11.7	TSZ392M76155□VA
	4700	89×155	0.20	13.8	TSZ472M89155□VA
	5600	89×170	0.20	16.0	TSZ562M89170□VA
	6800	89×195	0.20	18.6	TSZ682M89195□VA

*产品编码中□内为产品端子引出型式代码
*□Enter the appropriate terminal code

*记载之外的体积，请另行咨询。
*Please consult to us for the terminal type not displayed in content.

*铝电解电容器由于承受纹波电流而发热，随着温升而发生性能劣化，每升高 5℃寿命减少一半。请在使用中降低产品承受的纹波电流。
Aluminum electrolytic capacitor will emit heat when ripple current is applied, the performance will deteriorate when temp. rises. the useful life will be half of original life when temp rises every 5℃. Please reduce the ripple current when using capacitor.