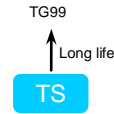


TS SERIES

- High Ripple
- High Reliability
- Long Life
- RoHS

- All-welded construction ensures reliable electrical contact
- High reliability and high ripple current capability.
- Endurance with ripple current: 5000 hours at 85°C.
- Applications: Frequency converters, Uninterruptible power supplies, Solar and Wind power generator

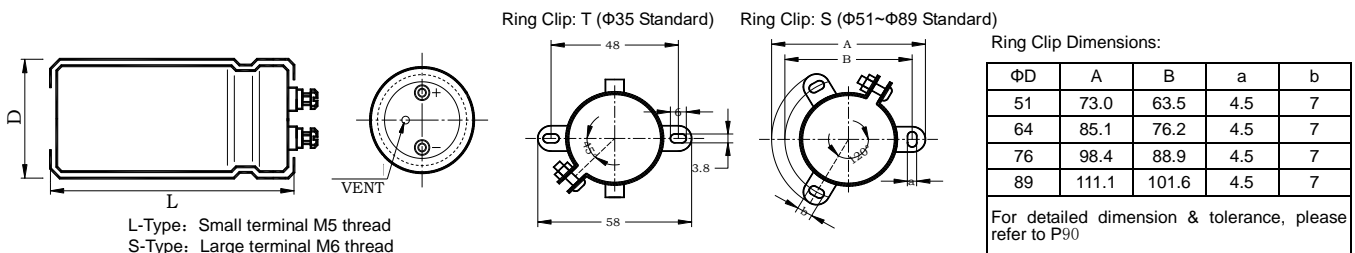


SPECIFICATIONS

Items	Characteristics										
Operating Temperature Range	-40~+85°C										
Rated Working Voltage Range	350~550V										
Capacitance Range	1000~18000μ F										
Capacitance Tolerance	±20% (20°C, 120Hz)										
Dissipation Factor (MAX) 20°C, 120Hz	<table border="1"> <tr> <td>U_R(V)</td> <td>400</td> <td>450</td> <td>500</td> <td>550</td> </tr> <tr> <td>tanδ</td> <td colspan="2">0.15</td> <td colspan="2">0.20</td> </tr> </table>	U _R (V)	400	450	500	550	tanδ	0.15		0.20	
U _R (V)	400	450	500	550							
tanδ	0.15		0.20								
Leakage Current (MAX)	I=0.01C _R U _R or 5mA whichever is minimum. (at 20°C, After 5 minutes application of rated voltage) I=Leakage Current (μA) U _R =Rated Voltage (V) C _R =Rated Capacitance (μF)										

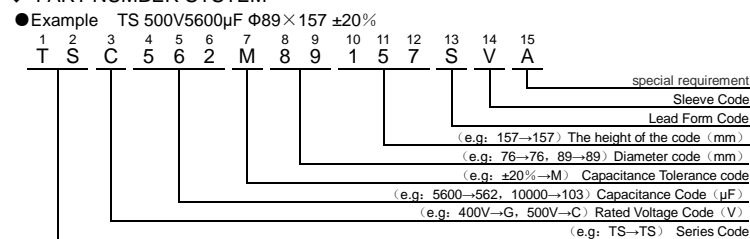
	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	10000h	>100000h	5000h	5000h	1000h
Leakage Current	≤Specified value		≤Specified value	≤Specified value	≤Specified value
tanδ Change	≤300% of specified value		≤200% of specified value	≤ 130% of specified value	≤ 150% of specified value
Capacitance change	Within ±30% of initial value		Within ±20% of initial value	Within ±10% of initial value	Within ±15% of initial value
Condition Applied Voltage Applied Ripple Current Applied Temperature Failure Rate Level	U _R I _R 85°C ≤1% Failure rate	U _R 1.2×I _R 40°C ≤1% Failure rate	U _R I _R 85°C 0%	U _R I _R =0 85°C 0%	U _R =0 I _R =0 85°C 0% Back up to 20°C and placed more than 24 hours. U _R to be applied for 60 min before measurement.

- Dimensions
- Terminal Code



- Please consult to us for the terminal type not displayed in content.

PART NUMBER SYSTEM



Rated Ripple Current Multiplies

•Frequency coefficient

Frequency (Hz)	50(60)	100(120)	300	1k	≥10k
Coefficient	0.80	1.00	1.10	1.30	1.40

•Temperature coefficient

Temperature (°C)	+40	+60	+85
Coefficient	1.89	1.67	1.00

TS SERIES

◆ 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	89×157	0.15	25.9	TSH103M89157□VA
	12000	89×157	0.15	29.1	TSH123M89157□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	89×157	0.15	23.5	TSG822M89157□VA	
10000	89×157	0.15	26.6	TSG103M89157□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	89×157	0.15	21.4	TSE682M89157□VA
	8200	89×157	0.15	23.5	TSE822M89157□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
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		89×157	0.20	15.9	TSC562M89157□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	89×157	0.20	13.8	TSZ472M89157□VA	
5600	89×170	0.20	16.0	TSZ562M89170□VA	
6800	89×195	0.20	18.6	TSZ682M89195□VA	

*□Enter the appropriate terminal code

*Please ask for advice for other sizes.

*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.