

TP series 105°C 3000hours

- Long Useful Life
- High Ripple Current
- Miniaturized
- Industrial Power Supplies and Inverters

■ SPECIFICATIONS

Item	Performance Characteristics																	
Operating Temperature Range	-40~105°C																	
Rated Voltage Range	160~450V																	
Capacitance Range	56~2200uF																	
Capacitance Tolerance	±20% at 120Hz,20°C																	
Leakage Current (MAX)	After 5 minutes at 20°C application of rated voltage,current is not more than 0.01CV or 1.5mA whichever is smaller. I=Leakage Current (uA) ,C=Nominal Capacitance (uF) ,V=Rated Voltage (V)																	
Dissipation Factor (tan δ)	<table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>160</th> <th>200</th> <th>250</th> <th>315</th> <th>350</th> <th>400</th> <th>450</th> <th rowspan="2">20°C 120Hz</th> </tr> </thead> <tbody> <tr> <td>Tan δ</td> <td colspan="6">0.15</td> <td>0.12</td> </tr> </tbody> </table>	Rated voltage(V)	160	200	250	315	350	400	450	20°C 120Hz	Tan δ	0.15						0.12
Rated voltage(V)	160	200	250	315	350	400	450	20°C 120Hz										
Tan δ	0.15						0.12											
Low Temperature Stability Impedance Ratio	<p>Measurement frequency:120Hz</p> <table border="1"> <thead> <tr> <th>Rated voltage(V)</th> <th>160~450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C) / Z(+20°C)</td> <td>4</td> </tr> </tbody> </table>	Rated voltage(V)	160~450	Z(-25°C) / Z(+20°C)	4													
Rated voltage(V)	160~450																	
Z(-25°C) / Z(+20°C)	4																	
Load Life	<p>After application of the rated DC voltage with rated ripple current at 105°C 3000hours the capacitors shall meet the requirement bellow</p> <table border="1"> <tbody> <tr> <td>Leakage Current</td> <td>≤The initial specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤200% of the initial specified value</td> </tr> </tbody> </table>	Leakage Current	≤The initial specified value	Capacitance Change	±20% of the initial value	Dissipation Factor	≤200% of the initial specified value											
Leakage Current	≤The initial specified value																	
Capacitance Change	±20% of the initial value																	
Dissipation Factor	≤200% of the initial specified value																	
Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.</p> <table border="1"> <tbody> <tr> <td>Leakage Current</td> <td>≤200% of the initial specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤150% of the initial specified value</td> </tr> </tbody> </table>	Leakage Current	≤200% of the initial specified value	Capacitance Change	±20% of the initial value	Dissipation Factor	≤150% of the initial specified value											
Leakage Current	≤200% of the initial specified value																	
Capacitance Change	±20% of the initial value																	
Dissipation Factor	≤150% of the initial specified value																	

■ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency(Hz)	60(50)	120	1k	10k	≥100k
Coefficient	0.87	1.00	1.20	1.35	1.40

Temperature coefficient

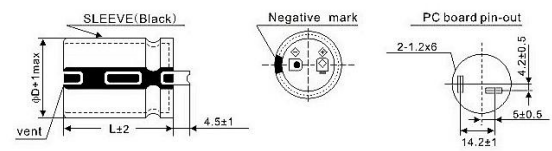
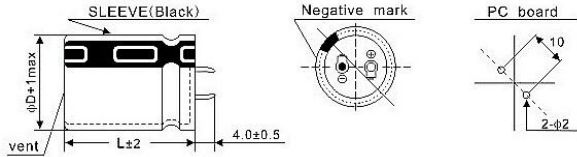
Temperature	40°C	55°C	70°C	85°C	105°C
Coefficient	2.7	2.5	2.1	1.7	1.0

TP series 105°C 3000hours

■DIMENSIONS(mm)

Terminal code:K (Φ22 ~Φ35):Standard

Terminal code:L (Φ35 ~Φ40)



■STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

Size $\Phi D \times L$ (mm)Ripple Current(mA 105°C,100kHz)r.m.s

W.V	CAP (uF)	SIZE	Ripple current	
160	330	22×25	1.47	
	390	25×25	1.58	
	470	22×35	1.78	
	560	22×35	2.07	
		25×30	2.17	
	680	30×25	2.07	
		22×40	2.57	
	680	25×35	2.48	
		820	22×50	2.77
	25×40		2.68	
	30×30		2.87	
	820	35×25	2.77	
		1000	25×45	3.30
			30×35	3.37
	1000	35×30	3.30	
		1200	25×50	3.67
			30×40	3.78
	35×35		3.57	
	1500	30×45	4.38	
		35×40	4.27	
1800	35×45	4.38		
2000	35×50	5.87		

W.V	CAP (uF)	SIZE	Ripple current
200	220	22×25	1.07
	270	22×25	1.15
	330	22×30	1.37
		25×25	1.37
	390	22×30	1.43
	470	22×35	1.53
		25×30	1.53
		30×25	1.57
	560	22×45	1.61
		25×35	1.61
	680	22×50	1.66
		25×40	1.90
		30×30	1.90
		35×25	2.17
	820	25×45	2.17
		30×35	2.17
		35×30	2.37
	1000	30×40	2.37
		35×35	2.37
	1200	30×45	2.73
35×40		2.73	
1500	35×40	3.42	
1800	35×45	3.97	
2200	35×50	4.48	

W.V	CAP (uF)	SIZE	Ripple current
250	180	22×25	0.98
	220	22×30	1.17
		25×25	1.17
	270	22×35	1.23
	330	22×40	1.28
		25×30	1.32
	330	30×25	1.32
		390	22×45
	25×35		1.42
	470	22×50	1.63
		30×30	1.63
		35×25	1.63
	560	25×45	1.82
		30×35	1.82
		35×30	1.82
	680	25×50	2.17
		30×40	2.17
	820	30×45	2.48
		30×50	2.48
	1000	30×50	2.87
35×40		2.87	
1200	35×45	3.29	
1500	35×50	3.78	

customer products are available on request

TP series 105°C 3000hours

■STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

Size $\Phi D \times L$ (mm)Ripple Current(mA 105°C,100kHz)r.m.s

W.V	CAP (uF)	SIZE	Ripple current
350	68	22×25	0.68
	100	22×30	0.85
		25×25	0.85
	120	22×35	0.87
	150	22×40	0.97
		25×30	1.00
		30×25	1.00
	180	22×45	1.09
		25×35	1.09
		30×30	1.10
	220	22×50	1.14
		25×40	1.18
		35×25	1.18
	270	25×50	1.24
		30×35	1.30
		35×30	1.24
	330	30×45	1.43
		35×35	1.43
	390	30×50	1.55
		35×40	1.55
470	35×45	1.67	
560	35×50	1.87	

W.V	CAP (uF)	SIZE	Ripple current
400	68	22×25	0.46
	82	22×30	0.55
		25×25	0.54
	100	22×35	0.63
		25×25	0.63
	120	22×35	0.70
		25×30	0.70
		30×25	0.70
	150	22×40	0.83
		25×35	0.83
		30×25	0.83
	180	22×50	0.97
		25×40	0.97
		30×30	0.97
		35×25	0.97
	220	25×45	1.18
		30×35	1.18
		35×30	1.18
		25×50	1.33
	270	30×40	1.33
35×30		1.33	
30×45		1.57	
330	35×35	1.57	
	30×50	1.78	
390	35×40	1.78	
	470	35×45	2.09
560	35×50	2.27	
680	35×60	2.90	
820	40×60	3.60	

W.V	CAP (uF)	SIZE	Ripple current
450	56	22×25	0.47
	68	22×30	0.58
	82	22×35	0.63
	100	22×35	0.70
		25×30	0.70
		30×25	0.70
	120	22×45	0.78
		25×35	0.78
	150	22×50	0.93
		25×40	0.93
		30×30	0.93
		35×25	0.93
	180	25×45	1.04
		30×35	1.04
	220	25×50	
		30×40	
		35×30	
	270	30×45	
		35×35	
	330	30×50	
35×40			
390	35×45		
470	35×50		

customer products are available on request