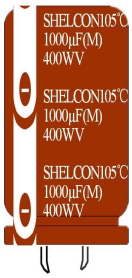
SHP SERIES

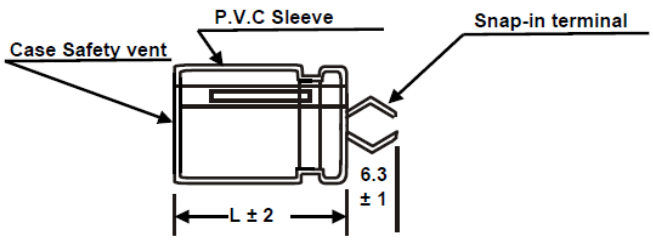


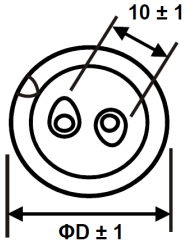
- Endurnce with ripple current: 105℃ 4000 hours
- Non solvent-proof type

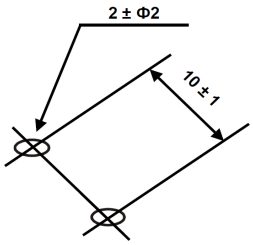
◆ SPECIFICATIONS

Item	Characteristics
Category Temperature Range	-25~+105℃
Voltage Range	160 ~ 450V.DC
Nominal Cap. Range	82 ~ 2700 μF
Capacitance Tolerance	±20%(M) 20℃, 120Hz
Leakage Current	I≦3 √CV I: Leakage Current (μA); C: Nominal Capacitance (μF); V: Rated Voltage (V) (at 20℃ after 5 min.)
Dissipation Factor(tanδ) (at 120Hz,20℃)	Rated voltage(V.DC): 160 to 400V / 420V & 450V tanδ(max): 0.15 / 0.20
Low Temp. Impedance Stability at 120Hz	Rated voltage(V.DC): 160 to 400V / 420V & 450V Z-25℃/Z+20℃: 4 / 8
High Temp. Load Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to Dcvoltage with the rated ripple current is applied for 4000 hours at 105℃ Capacitance change --- ≦±20% of the initial measured value tanδ --- ≦ 200% of the initial specified value Leakage Current --- ≦ the initial specified value
High Temp. Non-Load Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hours at 105℃ without voltage applied. Capacitance Change --- ≦±15% of the initial measured value tanδ --- ≦150% of the initial specified value Leakage Current --- ≦ the initial specified value

● DRAWING







● MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Multipliers

Freq.(Hz) / Cap(μF)	60(50)	120	300	1K	10K	50K
160~250VDC	0.81	1.00	1.17	1.32	1.45	1.50
315~450VDC	0.77	1.00	1.16	1.30	1.41	1.43

(2) Temperature Coefficient

Ambient Temperature (℃)	40	60	70	85	105
Coefficient	2.40	2.10	1.78	1.65	1.00

SHP SERIES

■**Standard Ratings**

WV(Vdc) / ΦD / Cap.(μF)	160				180				200			
	22	25	30	35	22	25	30	35	22	25	30	35
270									22X25 1.1			
330					22X25 1.21							
390	22X25 1.32								22X30 1.38	25 X25 1.39		
470					22X30 1.52	25 X25 1.52			22X35 1.55			
560	22X30 1.66	25 X25 1.68			22X35 1.7		30X25 1.78		22X40 1.73	25 X30 1.71	30X25 1.78	
680	22X35 1.87	25 X30 1.88	30X25 1.96		22X40 1.91	25 X30 1.88			22X45 1.81	25 X30 1.87	30X30 1.98	35X25 2.1
820	22X40 2.09				22X45 1.99	25.4X35 2.16	30X30 2.17	35X25 2.31	22X50 2.18	25 X35 2.09	30X35 2.22	
1000	22X45(50) 2.36(2.41)	25 X35 2.38	30X30 2.4	35X25 2.55	22X50 2.25	25 X40(45) 2.43(2.47)	30X35 2.46			25 X40(45) 2.35(2.88)	30X40 2.53	35X30 2.61
1200		25 X40(45) 2.66(2.71)	30X35(40) 2.692.77)	35X30 2.86		25 X50 2.75	30X35 2.77	35X30 2.86			30X45(50) 2.84(2.88)	35X35 2.88
1500		25 X50 3.08	30X45 3.17	35X35 3.22			30X45(50) 3.17(3.22)	35X35 3.22				35X40 3.34
1800			30X50 3.53	35X40 3.66				35X40(45) 3.66(3.74)				35X45(50) 3.74(3.82)
2200				35X45 4.14				35X50 4.22				
2700				35X50 4.68	← Upper: Case Size ΦDxL (mm) ← Lower: Rated Ripple Current(Arms)(105℃ 120Hz)							

WV(Vdc) / ΦD / Cap.(μF)	220				250				315			
	22	25	30	35	22	25	30	35	22	25	30	35
150									22X25 0.80			
180									22X30 0.92	25 X25 0.94		
220					22X25 1.01				22X35 1.04		30X25 1.17	
270	22X25 1.10				22X30 1.20				22X40 1.18	25 X30 1.19		
330	22X30 1.19					25 X25 1.32			22X45 1.33	25 X35 1.37	30X30 1.4	35X25 1.49
390		25 X25 1.39			22X35 1.62	25 X30 1.43	30X25 1.51		22X50 1.48	25 X40 1.52		
470	22X35 1.55	25 X30 1.56	30X25 1.63		22X40 1.62					25 X45 1.70	30X35 1.71	35X30 1.82
560	22X40 1.73		30X30 1.79		22X45(50) 1.80(1.82)	25 X35 1.78	30X30 1.83	35X25 1.91		25 X50 1.88	30X40(45) 1.92(1.97)	35X35 2.00
680	22X45(50) 1.94(1.99)	25 X35 1.96	30X35 2.02	35X25 2.10		25 X40(45) 2.00(2.04)	30X35 2.06	35X30 2.15			30X50 2.21	35X40 2.29
820		25 X40(45) 2.20(2.24)	30X40 2.29	35X30 2.36		25 X50 2.28	30X40(45) 2.33(2.39)	35X35 2.38				35X45 2.57
1000		25 X50 2.51	30X45 2.59	35X35 2.63			30X50 2.68	35X40 2.72				35X50 2.89
1200			30X50 2.88	35X40 2.98				35X45 3.05				
1500				35X45 3.41				35X50 3.49				
1800				35X50 3.82	← Upper: Case Size ΦDxL (mm) ← Lower: Rated Ripple Current(Arms)(105℃ 120Hz)							

SHP SERIES

■ **Standard Ratings**

WV(Vdc) / ΦD / Cap.(μF)	350				400				420			
	22	25	30	35	22	25	30	35	22	25	30	35
100					22X25 0.66				22X25 0.66			
120	22X25 0.72				22X30 0.75				22X30 0.75	25 X25 0.77		
150	22X30 0.84				22X35 0.86	25 X25 0.83			22X35 0.86			
180		25 X25 0.94			22X40 0.96	25 X30 0.97	30X25 1.02		22X40(45) 0.96(0.98)	25 X30(35) 0.97(1.01)	30X25 1.02	
220	22X35(40) 1.04(1.06)	25 X30 1.07	30X25 1.13		22X45 1.09	25 X35 1.12		35X25 1.22	22X50 1.11	25 X40 1.14	30X30 1.14	35X25 1.22
270	22X45 1.20	25 X35 1.24	30X30 1.27	35X25 1.35	22X50 1.23	25 X40(45) 1.26(1.29)	30X30 1.27			25 X45 1.29	30X35 1.3	35X30 1.38
330	22X50 1.36	25 X40 1.39	30X35 1.43			25 X50 1.44	30X35 1.43	35X30 1.52		25 X50 1.44	30X40 1.48	35X35 1.54
390		25 X45 1.55	30X40 1.6	35X30 1.66			30X40 1.6	35X35 1.67			30X45 1.64	35X40 1.73
470		25 X50 1.72	30X45 1.81	35X35 1.83			30X45(50) 1.81(1.84)	35X40 1.9			30X50 1.84	35X45 1.94
560			30X50 2.00	35X40 2.07				35X45 2.12				35X50 2.17
680				35X45 2.34				35X50 2.39				
820				35X50 2.62	← Upper: Case Size ΦDxL (mm) ← Lower: Rated Ripple Current (Arms) (105℃ 120Hz)							

WV(Vdc) / ΦD / Cap.(μF)	450			
	22	25	30	35
82	22X25 0.59			
100	22X30 0.69	25 X25 0.7		
120	22X35 0.77			
150	22X40(45) 0.88(0.90)	25 X30(35) 0.88(0.92)	30X25 0.93	
180	22X50 1.01	25 X40 1.03	30X30 1.03	35X25 1.1
220		25 X45 1.16	30X35 1.17	35X30 1.24
270		25 X50 1.31	30X40 1.33	35X25 1.39
330			30X45 1.51	
390			30X50 1.67	35X40(45) 1.73(1.77)
470				35X50 1.98