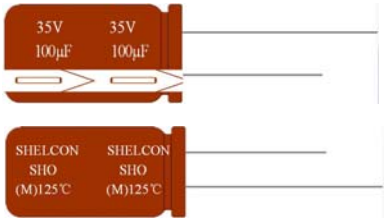
SHO SERIES

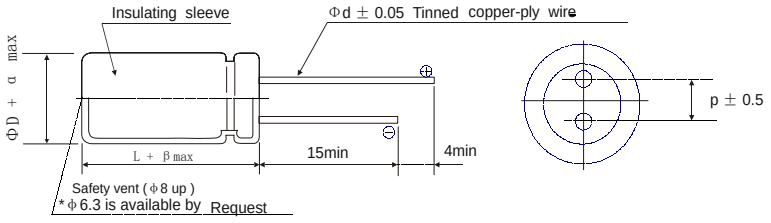


- 125℃ Long-Life, Low Impedance
- Load life of 1000 ~ 3000 Hours

◆ SPECIFICATIONS

Item	Characteristics
Operating temperature range	-40~+125℃
Voltage Range	6.3 ~ 50V.DC
Nominal Cap. Range	10 ~ 4700 μF
Capacitance Tolerance	±20%(M) 20℃, 120Hz
Leakage current	I=0.01CV or 3(μA) whichever is greater. (at 20℃ after 2 min.) Where, I: Max. leakage current (μA),C: Nominal capacitance (μF), V: Rated voltage (V) I: LC (μA), C: CAP. (μF), V: WV (Vdc) at 20℃
Dissipation Factor (tanδ) (at 120Hz,20℃)	Rated voltage(V.DC): 6.3 / 10 / 16 / 25 / 35 / 50 tanδ (max): 0.22 / 0.20 / 0.16 / 0.14 / 0.12 / 0.10 0.02 is added to every 1000μF increase over 1000μF.
Low Temp.Iimpedance Stability at 120Hz	W.V.(Vdc): 6.3 / 10 / 16 / 25 / 35 / 50 Z(-25℃)/Z(+20℃): 4 / 3 / 2 / 2 / 2 / 2 Z(-40℃/Z+20℃): 8 / 6 / 4 / 4 / 4 / 4
Impedance(Ω)	See case size table
High Temp.Load Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 125℃. Time 6.3~10V.DC: Φ5 & Φ6.3: 1000 hrs; Φ8 & Φ10: 2000 hrs; ΦD≧Φ13: 3000 hrs, application of DC rated working. Time 16~50V.DC: Φ5 & Φ6.3: 2000 hrs; ΦD≧8: 3000 hrs, application of DC rated working. Capacitance change ---≦± 30% of the initial measured value tanδ ---≦ 300% of the initial specified value DC 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 500 hours at 125℃ without voltage applied. Capacitance change ---≦± 30% of the initial measured value tanδ ---≦300% of the initial specified value DC leakage current ---≦the initial specified value

◆ DRAWING



Unit: (mm)

ΦD	5	6.3	8	10	13	16
P	2.0	2.5	3.5	5.0	5.0	7.5
Φd	0.5	0.5	0.6	0.6	0.6	0.8
β	1.5					
α	0.5					

● MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Coefficient

Freq.(Hz) / Cap(Mf)	120	1K	10K	100K
10 ~ 150	0.40	0.75	0.90	1.00
220 ~ 560	0.50	0.85	0.94	1.00
680 ~ 1800	0.60	0.87	0.95	1.00
2200 ~ 3300	0.70	0.90	0.95	1.00
4700 ~	0.85	0.95	0.98	1.00

(2) Temperature Coefficient

Ambient Temperature (℃)	70	85	85	105	125
Coefficient	2.4	2.1	1.78	1.65	1.00

SHO SERIES

■STANDARD RATINGS

WV(Vdc) / Parameter / ΦDxL	6.3			10			16		
	cap (μF)	Impedance	Ripple current	cap (μF)	Impedance	Ripple current	cap (μF)	Impedance	Ripple current
5x11	47	5	120	33	4.5	120	22	3.5	145
5X11	68	5	120	47	4.5	145	33	3.5	155
5X11	100	5	145	68	4.5	155	47	3.5	205
6.3X11.	150	2.50	155	150	2.2	205	68	1.8	228
6.3X11.	220	2.50	205	220	2.2	228	100	1.8	315
8X11.5	330	1.80	228	330	1.6	315	150	1.4	355
10X12.5	470	1.20	315	470	1.1	355	220	0.90	750
10X12.5	680	1.20	355	560	1.1	750	330	0.90	850
10X16	820	0.85	550	680	0.80	800	470	0.75	1050
13x20	1000	0.80	750	1000	0.75	850	1000	0.70	1250
13x25	1500	0.68	850	1500	0.65	1250	1500	0.58	1335
13X25	2200	0.68	1250	2200	0.65	1335	2200	0.58	1470
13X25	3300	0.68	1335	3300	0.65	1470	3300	0.58	1520
16X25	4700	0.60	1600	4700	0.58	1550			

WV(Vdc) / Parameter / ΦDxL	25			35			50		
	cap (μF)	Impedance	Ripple current	cap (μF)	Impedance	Ripple current	cap (μF)	Impedance	Ripple current
5x11	15	3.0	155	10	2.5	205	10	2.5	205
5X11	22	3.0	205	15	2.5	228	15	2.5	228
5X11	33	3.0	228	22	2.5	315	22	2.5	315
6.3X11	47	1.6	315	33	1.2	355	33	1.2	355
8X11.5	68	0.90	355	47	0.75	750	47	0.75	750
8X11.5	100	0.90	750	68	0.75	850	68	0.75	850
8X11.5	150	0.90	850	100	0.75	1250	100	0.75	1250
8X11.5	220	0.90	1250	150	0.75	1335	150	0.75	1335
10X12.5	330	0.75	1335	220	0.65	1470	220	0.65	1470
10X20	470	0.70	1470	330	0.60	1520	330	0.60	1520
13X20	680	0.65	1520	470	0.58	1650	470	0.58	1650
13X25	1000	0.65	1650	680	0.58	1775	680	0.58	1775
16X25	1500	0.58	1775	1000	0.53	1800	1000	0.53	1800
16x25	2200	0.58	1800	1500	0.53	1850	1500	0.53	1850
16x31.5	3300	0.50	1850	2200	0.48	1920	2200	0.48	2000

(mArms / 125℃. 100kHZ)
(Ω max / 20℃. 100kHZ)
ΦD x L (mm)