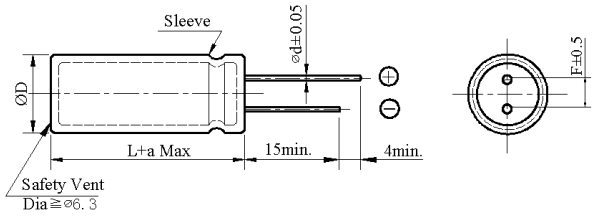
# SW Series

- **Counter-plan product for safety**
- **Load life 2,000 hours at 105℃**

## ◆ SPECIFICATIONS

| Item | Performance Characteristics |
|---|---|
| Category Temperature Range | -25 ~ +105℃ |
| Working Voltage Range | 160 ~ 450Vdc |
| Capacitance Range | 22 ~ 680 μF |
| Capacitance Tolerance | ±20% (at 25℃ and 120Hz) |
| Dissipation Factor (tanδ) (at 25℃, 120Hz) | Rated Voltage (V): 160 ~ 250 / 400 ~ 450; tanδ(Max): 0.12 / 0.15 |
| Leakage Current | I=0.02CV or 3000 μA whichever is smaller<br>I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V)<br>Impress the rated voltage for 2 minutes |
| Low Temperature Characteristics Impedance Ratio(MAX) | Rated voltage (V): 160~250 / 400 / 420 ~ 450; Z(-25℃)/Z(+20℃): 3 / 5 / 6 (at 120Hz) |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 105°C.<br>Capacitance change: ≦ ±20% of the initial value<br>Dissipation factor(tanδ): ≦ 200% of the specified value<br>Leakage current: ≦ specified value |
| Shelf Life | The following requirements shall be satisfied when the capacitor are restored to 25℃ after the rated voltage applied for 1,000 hours at 105℃ without voltage applied.<br>Capacitance change: ≦ ±20% of the initial value<br>Dissipation factor(tanδ): ≦ 200% of the specified value<br>Leakage current: ≦ 200% of the specified value |
| Others | Conforms to JIS-C-5101-4 (1998), characteristic W |

## ◆ DIMENSIONS (mm)




| ΦD | 10 | 12.5 L< 35 | 12.5 L ≥ 35 | 16 | 18 |
|---|---|---|---|---|---|
| ΦD | ΦD + 0.5 Max | | | | |
| Φd | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 |
| F | 5.0 | 5.0 | | 7.5 | 7.5 |
| a | L + 1.5 Max | ≦ 35 L+1.5Max<br>≧ 40 L+2.0 Max | | L +1.5 Max | |

## ◆ PART NUMBER SYSTEM( Example : 450V 150μF )

| S | W | 2 | W | 1 | 5 | 1 | M | N | N | 1 | 8 | 4 | 5 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

- Special Request
- Size code(1845 : 18×45)
- Lead length code
- Lead forming Type code
- Capacitance tolerance code(M:±20%)
- Capacitance code (150μF)
- Voltage code (450V)
- Series code (SW)

# SW Series

◆ **Case size & Permissible rated ripple current: (mA rms) at 105℃ / 120Hz**

| uF \ Vdc | 160 | | 200 | | 220 | | 250 | |
|---|---|---|---|---|---|---|---|---|
| | ΦD × L | RC | ΦD × L | RC | ΦD × L | RC | ΦD × L | RC |
| 68 | | | | | 10×35 | 380 | 10×40 | 395 |
| 82 | | | 10×35 | 435 | 10×40 | 450 | 10×45 | 480 |
| 100 | 10×30 | 410 | 10×40 | 470 | 10×45 | 505 | 10×50 | 550 |
| | | | | | | | 12.5×35 | 530 |
| 120 | 10×35 | 500 | 10×45 | 535 | 10×50 | 580 | 12.5×40 | 565 |
| | | | | | 12.5×35 | 540 | | |
| 150 | 10×40 | 575 | 12.5×35 | 610 | 12.5×40 | 620 | 12.5×45 | 635 |
| 180 | 10×50 | 640 | 12.5×40 | 700 | 12.5×45 | 715 | 12.5×50 | 740 |
| | 12.5×30 | 620 | | | | | 16×31.5 | 730 |
| 220 | 12.5×35 | 740 | 12.5×50 | 860 | 16×35.5 | 870 | 16×40 | 950 |
| | 16×25 | 725 | 16×31.5 | 825 | | | 18×30 | 920 |
| 270 | 12.5×45 | 860 | 16×35.5 | 860 | 16×40 | 930 | 16×45 | 1100 |
| | 16×30 | 830 | 18×30 | 855 | 18×30 | 910 | 18×35.5 | 1030 |
| 330 | 12.5×50 | 930 | 16×40 | 1150 | 16×45 | 1200 | 18×40 | 1300 |
| | 16×31.5 | 910 | 18×35.5 | 1200 | 18×35.5 | 1245 | | |
| | 18×25 | 895 | | | | | | |
| 470 | 18×31.5 | 1210 | 18×45 | 1380 | 18×45 | 1400 | 18×50 | 1460 |
| 560 | 18×35.5 | 1350 | 18×50 | 1500 | | | | |
| 680 | 18×40 | 1460 | | | | | | |

| uF \ Vdc | 400 | | 420 | | 450 | |
|---|---|---|---|---|---|---|
| | ΦD × L | RC | ΦD × L | RC | ΦD × L | RC |
| 22 | | | 10×30 | 210 | 10×30 | 225 |
| 27 | 10×30 | 250 | 10×35 | 260 | 10×35 | 280 |
| 33 | 10×35 | 275 | 10×40 | 290 | 10×40 | 305 |
| 39 | 10×40 | 305 | 10×45 | 315 | 10×50 | 330 |
| 47 | 10×45 | 330 | 10×50 | 350 | 12.5×40 | 390 |
| | 12.5×30 | 320 | 12.5×35 | 340 | | |
| 56 | 12.5×35 | 375 | 12.5×40 | 395 | 12.5×45 | 450 |
| 68 | 12.5×40 | 455 | 12.5×45 | 480 | 12.5×50 | 570 |
| | | | 16×31.5 | 470 | 16×35.5 | 560 |
| 82 | 12.5×50 | 535 | 16×35.5 | 560 | 16×40 | 630 |
| | 16×31.5 | 530 | | | 18×31.5 | 605 |
| 100 | 16×35.5 | 615 | 16×40 | 670 | 16×45 | 740 |
| | | | 18×31.5 | 655 | 18×35.5 | 720 |
| 120 | 16×40 | 730 | 18×35.5 | 750 | 18×40 | 805 |
| | 18×31.5 | 700 | | | | |
| 150 | 18×40 | 845 | 18×45 | 900 | 18×45 | 950 |
| 180 | 18×45 | 950 | 18×50 | 1040 | | |
| 220 | 18×50 | 1100 | | | | |

◆ **RIPPLE CURRENT MULTIPLIERS**

**Frequency Multipliers**

| Vdc | Frequency (Hz) | | | | |
|---|---|---|---|---|---|
| | 50/60 | 120 | 1K | 10K | 100K |
| 160 ~ 450 | 0.80 | 1.00 | 1.30 | 1.40 | 1.50 |