

# MV Series

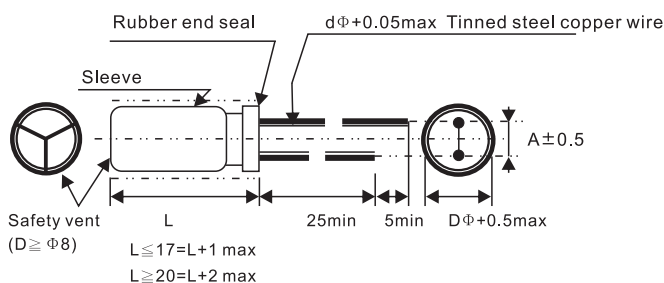


- 105°C, 4000~7000 hours, suitable for switching power, UPS, Ballast (紋波疊加)
- 採用了新型高穩定、高導電率電解液、高信賴技術

## • SPECIFICATIONS

| Items                              | Characteristics  |  |      |      |      |      |      |                  |
|------------------------------------|--|--|------|------|------|------|------|------------------|
| Category<br>Temperature Range      | -40 to +105°C  |  |      |      |      |      |      |                  |
| Rated Voltage Range                | 160V to 450Vdc   |  |      |      |      |      |      |                  |
| Capacitance Tolerance              | ± 20% (M) (at 20°C ,120Hz)   |  |      |      |      |      |      |                  |
| Leakage Current                    | I=0.01CV + 10 μA, whichever is greater.<br>Where, I :Max. Leakage current (μA).<br>C : Nominal capacitance (μF) .V :Rated voltage(V) (at 20°C , after 2 minutes) |  |      |      |      |      |      |                  |
| Dissipation Factor (tan δ)         | Rated voltage (Vdc)  | 160V                                   | 200V | 250V | 350V | 400V | 450V |                  |
|                                    | tan δ (Max.)   | 0.20                                   | 0.20 | 0.20 | 0.24 | 0.24 | 0.24 | (at 20°C ,120Hz) |
| Low Temperature<br>Characteristics | Impedance ration max at 120Hz  |  |      |      |      |      |      |                  |
|                                    | Working voltage  | 160v                                   | 200v | 250v | 350v | 400v | 450v |                  |
|                                    | Z-25°C/ Z+20°C   | 4                                      | 4    | 4    | 4    | 5    | 6    |                  |
| Load. Life                         | The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for the specified at 105°C                 |  |      |      |      |      |      |                  |
|                                    | Capacitance change   | ≤ ±25% of the initial value            |      |      |      |      | φ D  | load life        |
|                                    | DF (tan δ)   | ≤ 200 % of the initial specified value |      |      |      |      | 8 φ  | 4000             |
|                                    | Leakage current  | ≤ The initial specified value          |      |      |      |      | 10 φ | 5000             |
| Shelf Life                         | 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.    |  |      |      |      |      |      |                  |
|                                    | Capacitance change   | ≤ ±20% of the initial value            |      |      |      |      |      |                  |
|                                    | DF (tan δ)   | ≤ 200 % of the initial specified value |      |      |      |      |      |                  |
|                                    | Leakage current  | ≤ The initial specified value          |      |      |      |      |      |                  |
| Ripple Current<br>Multiplier       | Temperature coefficient  |  |      |      |      |      |      |                  |
|                                    | Temperature(°C)  | ~55                                    | 60   | 70   | 85   | 105  |      |                  |
|                                    | Factor   | 2.23                                   | 2.17 | 2.0  | 1.75 | 1    |      |                  |
|                                    | Frequency coefficient  |  |      |      |      |      |      |                  |
|                                    | cap \ freq   | 120                                    | 1k   | 10k  | 100k |      |      |                  |
|                                    | ~100   | 0.40                                   | 0.75 | 0.90 | 1.00 |      |      |                  |
| 100up                              | 0.50   | 0.85                                   | 0.94 | 1.00 |      |      |      |                  |

## • Diagram: (Unit: mm)



| Body Dia φD  | 8   | 10  | 13     |        | 16  | 18     |
|--------------|-----|-----|--------|--------|-----|--------|
|              |     |     | L ≤ 21 | L ≥ 25 |     |        |
| Lead Dia φd  | 0.5 | 0.6 | 0.6    | 0.8    | 0.8 | 0.8    |
| Lead Space A | 3.2 |     | 5      |        | 7.5 | 7.5/10 |



● STANDARD RATING

| Vdc<br>μF | 160v  |       |        | 200v  |       |        | 250v  |       |        | 350v  |       |        |
|-----------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|
|           | D*L   | 120Hz | 100KHz | D*L   | 120Hz | 100KHz | D*L   | 120Hz | 100KHz | D*L   | 120Hz | 100KHz |
| 3.3       |       |       |        |       |       |        |       |       |        | 10*16 | 56    | 141    |
| 4.7       |       |       |        |       |       |        |       |       |        | 10*16 | 68    | 169    |
| 6.8       |       |       |        |       |       |        |       |       |        | 10*16 | 71    | 178    |
| 10        | 10*16 | 125   | 250    | 10*16 | 81    | 202    | 10*16 | 71    | 178    | 10*20 | 83    | 206    |
| 22        | 10*20 | 250   | 500    | 10*20 | 136   | 340    | 13*21 | 206   | 514    | 13*25 | 221   | 551    |
| 33        | 10*20 | 250   | 500    | 13*21 | 262   | 655    | 13*21 | 221   | 551    | 16*25 | 290   | 721    |
| 47        | 13*21 | 330   | 660    | 13*25 | 340   | 850    | 16*25 | 326   | 814    | 16*32 | 368   | 910    |
| 68        | 13*25 | 380   | 760    | 16*25 | 440   | 1100   | 16*25 | 389   | 971    | 18*30 | 410   | 1020   |
| 100       | 16*25 | 560   | 1120   | 16*25 | 542   | 1220   | 16*32 | 520   | 1181   | 18*36 | 550   | 1300   |
| 120       | 16*25 | 610   | 1220   | 16*32 | 614   | 1380   | 18*30 | 590   | 1347   | 18*40 | 606   | 1415   |
| 150       | 16*32 | 680   | 1350   | 16*32 | 721   | 1622   | 18*36 | 710   | 1596   |       |       |        |
| 180       | 16*32 | 690   | 1380   | 18*30 | 833   | 1874   | 18*40 | 804   | 1800   |       |       |        |
| 220       | 16*32 | 700   | 1400   | 18*36 | 983   | 2211   | 18*45 | 940   | 2100   |       |       |        |
| 330       | 18*30 | 735   | 1480   | 18*45 | 1250  | 2811   |       |       |        |       |       |        |

| Vdc<br>μF | 400v           |            |            | 450v           |            |              |
|-----------|----------------|------------|------------|----------------|------------|--------------|
|           | D*L            | 120Hz      | 100KHz     | D*L            | 120Hz      | 100KHz       |
| 2.2       | 8*12<br>10*16  | 36<br>53   | 89<br>131  |                |            |              |
| 3.3       | 10*16          | 56         | 141        | 10*16          | 57         | 143          |
| 4.7       | 10*13<br>10*16 | 63<br>68   | 157<br>169 | 10*16          | 68         | 169          |
| 6.8       | 10*16          | 94         | 234        | 10*20          | 83         | 206          |
| 10        | 10*17<br>10*20 | 100<br>110 | 247<br>272 | 13*21          | 147        | 368          |
| 22        | 13*20<br>13*25 | 185<br>220 | 464<br>551 | 16*25          | 273        | 683          |
| 33        | 16*25          | 290        | 724        | 16*32          | 326        | 814          |
| 47        | 16*32<br>18*18 | 368<br>320 | 910<br>800 | 18*30          | 416        | 1039         |
| 68        | 18*30          | 410        | 1023       | 18*36<br>18*40 | 500<br>536 | 1250<br>1340 |
| 100       | 18*40          | 578        | 1290       |                |            |              |
| 120       | 18*45          | 630        | 1410       |                |            |              |

Ripple Current :mA/rms at 105°C

Chip Type SMD  
Miniature Type  
General Purpose  
High Frequency Low Impedance  
High Voltage High Reliability  
Non-polar Type  
Large Size Snap-in  
Large Size Screw  
X Metallized Polypropylene Film Capacitors