



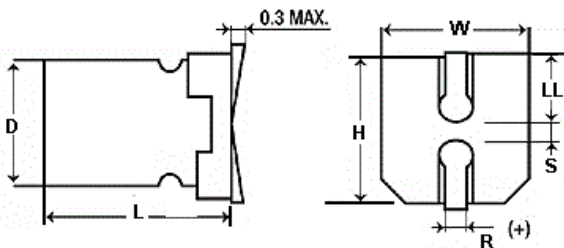
#### FEATURES

High Temperature – Very Low ESR – High Ripple Current – Stable with Temperature – High Frequency

#### APPLICATIONS

DC-DC Converters – Voltage Regulators – Decoupling

|  |                      |   |                                  |                |                 |           |           |           |
|--|----------------------|---|----------------------------------|----------------|-----------------|-----------|-----------|-----------|
| <b>Operating Temperature Range</b>                                 |                      | <b>-55°C to +105°C</b>  |                                  |                |                 |           |           |           |
| <b>Capacitance Tolerance</b>                                       |                      | <b>+20% at 120 Hz, 20°C</b>   |                                  |                |                 |           |           |           |
| <b>Surge Voltage</b>   | <b>WVDC</b>          | <b>2.5</b>  | <b>4</b>                         | <b>6.3</b>     | <b>10</b>       | <b>16</b> | <b>20</b> | <b>25</b> |
|  | <b>SVDC</b>          | 1.15 x rated WVDC   |                                  |                |                 |           |           |           |
| <b>Dissipation Factor<br/>120 Hz, 20°C</b>                         |                      | <b>15% MAX</b>  |                                  |                |                 |           |           |           |
| <b>Leakage Current</b>   |                      | <b>2 Minutes</b>  |                                  |                |                 |           |           |           |
|  |                      | 0.2CV or 280uA, whichever is greater  |                                  |                |                 |           |           |           |
| <b>Low Temperature Stability<br/>Impedance Ratio<br/>(100 kHz)</b> | <b>-55°C/ +20°C</b>  | ≤1.25   |                                  |                |                 |           |           |           |
|  | <b>+105°C/ +20°C</b> | ≤1.25   |                                  |                |                 |           |           |           |
| <b>Load Life</b>   |                      | <b>2000 hours at 105°C with rated WVDC applied</b>  |                                  |                |                 |           |           |           |
|  |                      | <b>Capacitance Change</b>   | ≤20% of initial measured value   |                |                 |           |           |           |
|  |                      | <b>Dissipation Factor</b>   | ≤150% of maximum specified value |                |                 |           |           |           |
|  |                      | <b>ESR</b>  | ≤150% of maximum specified value |                |                 |           |           |           |
|  |                      | <b>Leakage Current</b>  | ≤100% of maximum specified value |                |                 |           |           |           |
| <b>Damp Heat test</b>  |                      | <b>1000 hours at 60°C with rated voltage applied at 90-95% R.H.</b>   |                                  |                |                 |           |           |           |
|  |                      | <b>Capacitance Change</b>   | ≤20% of initial measured value   |                |                 |           |           |           |
|  |                      | <b>Dissipation Factor</b>   | ≤150% of maximum specified value |                |                 |           |           |           |
|  |                      | <b>ESR</b>  | ≤150% of maximum specified value |                |                 |           |           |           |
|  |                      | <b>Leakage Current</b>  | ≤100% of maximum specified value |                |                 |           |           |           |
| <b>Resistance to Soldering Heat</b>                                |                      | <b>Capacitors placed on a 230°C hot plate for 75 seconds with their electrode terminations facing downward will fulfill the following conditions after being cooled to room temperature</b> |                                  |                |                 |           |           |           |
|  |                      | <b>Capacitance Change</b>   | ≤20% of initial measured value   |                |                 |           |           |           |
|  |                      | <b>Dissipation Factor</b>   | ≤150% of maximum specified value |                |                 |           |           |           |
|  |                      | <b>ESR</b>  | ≤150% of maximum specified value |                |                 |           |           |           |
|  |                      | <b>Leakage Current</b>  | ≤100% of maximum specified value |                |                 |           |           |           |
| <b>Ripple Current Multipliers</b>                                  |                      | <b>Frequency (Hz)</b>   |                                  |                |                 |           |           |           |
|  |                      | 120Hz≤f<1kHz  | 1kHz≤f<10kHz                     | 10kHz≤f<100kHz | 100kHz≤f<500kHz |           |           |           |
|  |                      | 0.05  | 0.3                              | 0.7            | 1.0             |           |           |           |



| D±0.5 | W±0.2 | H±0.2 | LL±0.2 | R±0.15 | S±0.2 |
|-------|-------|-------|--------|--------|-------|
| 6.3   | 6.6   | 6.6   | 2.1    | .65    | 1.9   |
| 8     | 8.3   | 8.3   | 2.8    | .95    | 3.2   |

# UVG

+105°C Low ESR Standard

| Capacitance (µF) | WVDC | IC PART NUMBER                | Maximum ESR (Ω)<br>120 Hz,<br>+20°C | Maximum ESR (mΩ)<br>100 kHz,<br>+20°C | Leakage Current (µA) | Maximum RMS Ripple Current (mA)<br>120 kHz,<br>+105°C | Dims DxL (mm) |
|------------------|------|-------------------------------|-------------------------------------|---------------------------------------|----------------------|---|---------------|
| 22               | 20   | <a href="#">226UVG020MEW</a>  | 11.3                                | 60                                    | 280                  | 1450  | 6.3x6         |
| 47               | 20   | <a href="#">476UVG020MFF</a>  | 5.29                                | 45                                    | 280                  | 1890  | 8x8           |
| 47               | 25   | <a href="#">476UVG025MEW</a>  | 5.29                                | 70                                    | 280                  | 1600  | 6.3x6         |
| 47               | 25   | <a href="#">476UVG025MFE</a>  | 5.29                                | 45                                    | 280                  | 1600  | 8x10.2        |
| 100              | 20   | <a href="#">107UVG020MFBJ</a> | 2.49                                | 30                                    | 400                  | 2960  | 8x12          |
| 180              | 16   | <a href="#">187UVG016MFBJ</a> | 1.38                                | 20                                    | 576                  | 3640  | 8x12          |
| 330              | 2.5  | <a href="#">337UVG2R5MEW</a>  | 0.75                                | 26                                    | 280                  | 2247  | 6.3x6         |
| 330              | 4    | <a href="#">337UVG4R0MEW</a>  | 0.75                                | 21                                    | 280                  | 2630  | 6.3x6         |
| 330              | 10   | <a href="#">337UVG010MFBJ</a> | 0.75                                | 17                                    | 660                  | 3950  | 8x12          |
| 470              | 6.3  | <a href="#">477UVG6R3MFBJ</a> | 0.53                                | 15                                    | 592                  | 4210  | 8x12          |
| 560              | 2.5  | <a href="#">567UVG2R5MFE</a>  | 0.44                                | 15                                    | 280                  | 4210  | 8x10.2        |
| 560              | 4    | <a href="#">567UVG4R0MFBJ</a> | 0.44                                | 15                                    | 448                  | 4000  | 8x12          |
| 560              | 10   | <a href="#">567UVG010MFBJ</a> | 0.44                                | 17                                    | 1120                 | 3950  | 8x12          |
| 680              | 2.5  | <a href="#">687UVG2R5MFBJ</a> | 0.37                                | 13                                    | 340                  | 4520  | 8x12          |
| 820              | 6.3  | <a href="#">827UVG6R3MFBJ</a> | 0.3                                 | 15                                    | 1033                 | 4210  | 8x12          |