

# ULR

## Aluminum Polymer Capacitors

### High Temperature



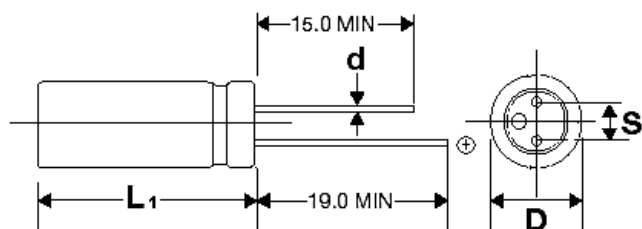
#### FEATURES

High temperature – Very Low ESR – High ripple current – stable with temperature – High frequency

#### APPLICATIONS

DC-DC converters – Voltage regulators – Decoupling

|                                                           |               |                                                                                                                                         |   |                                  |    |                |    |                 |  |
|-----------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------|----|----------------|----|-----------------|--|
| Operating Temperature Range                               |               | -55°C to +105°C                                                                                                                         |   |                                  |    |                |    |                 |  |
| Capacitance Tolerance                                     |               | +20% at 120 Hz, 20°C                                                                                                                    |   |                                  |    |                |    |                 |  |
| Surge Voltage                                             | WVDC          | 2.5                                                                                                                                     | 4 | 10                               | 16 | 20             | 25 |                 |  |
|                                                           | SVDC          | 1.15 x rated WVDC                                                                                                                       |   |                                  |    |                |    |                 |  |
| Dissipation Factor<br>120 Hz, 20°C                        |               | 10% MAX                                                                                                                                 |   |                                  |    |                |    |                 |  |
| Leakage Current                                           |               | 2 Minutes                                                                                                                               |   |                                  |    |                |    |                 |  |
|                                                           |               | 0.2CV or 280uA, whichever is greater                                                                                                    |   |                                  |    |                |    |                 |  |
| Low Temperature Stability<br>Impedance Ratio<br>(100 kHz) | -55°C/ +20°C  | ≤1.25                                                                                                                                   |   |                                  |    |                |    |                 |  |
|                                                           | +105°C/ +20°C | ≤1.25                                                                                                                                   |   |                                  |    |                |    |                 |  |
| Load Life                                                 |               | 2000 hours at 105°C with rated WVDC applied                                                                                             |   |                                  |    |                |    |                 |  |
|                                                           |               | Capacitance Change                                                                                                                      |   | ≤20% of initial measured value   |    |                |    |                 |  |
|                                                           |               | Dissipation Factor                                                                                                                      |   | ≤150% of maximum specified value |    |                |    |                 |  |
|                                                           |               | ESR                                                                                                                                     |   | ≤150% of maximum specified value |    |                |    |                 |  |
|                                                           |               | Leakage Current                                                                                                                         |   | ≤100% of maximum specified value |    |                |    |                 |  |
| Damp Heat test                                            |               | 1000 hours at 60°C with rated voltage applied at 90-95% R.H.                                                                            |   |                                  |    |                |    |                 |  |
|                                                           |               | Capacitance Change                                                                                                                      |   | ≤20% of initial measured value   |    |                |    |                 |  |
|                                                           |               | Dissipation Factor                                                                                                                      |   | ≤150% of maximum specified value |    |                |    |                 |  |
|                                                           |               | ESR                                                                                                                                     |   | ≤150% of maximum specified value |    |                |    |                 |  |
|                                                           |               | Leakage Current                                                                                                                         |   | ≤100% of maximum specified value |    |                |    |                 |  |
| Surge Voltage test                                        |               | 1000 cycles at 105°C with rated surge voltage applied for 30 seconds through a 1kΩ resistor and discharged for 5 minutes and 30 seconds |   |                                  |    |                |    |                 |  |
|                                                           |               | Capacitance Change                                                                                                                      |   | ≤20% of initial measured value   |    |                |    |                 |  |
|                                                           |               | Dissipation Factor                                                                                                                      |   | ≤150% of maximum specified value |    |                |    |                 |  |
|                                                           |               | ESR                                                                                                                                     |   | ≤150% of maximum specified value |    |                |    |                 |  |
|                                                           |               | Leakage Current                                                                                                                         |   | ≤100% of maximum specified value |    |                |    |                 |  |
| Ripple Current Multipliers                                |               | Frequency (Hz)                                                                                                                          |   |                                  |    |                |    |                 |  |
|                                                           |               | 120Hz<f<1kHz                                                                                                                            |   | 1kHz<f<10kHz                     |    | 10kHz<f<100kHz |    | 100kHz<f<500kHz |  |
|                                                           |               | 0.05                                                                                                                                    |   | 0.3                              |    | 0.7            |    | 1.0             |  |



|       |                          |                           |     |     |
|-------|--------------------------|---------------------------|-----|-----|
| D+0.5 | 5                        | 6.3                       | 8   | 10  |
| S+0.5 | 2                        | 2.5                       | 3.5 | 5.0 |
| d     | 0.5 L≤7mm<br>0.6 (L>7mm) | 0.45 L≤6mm<br>0.6 (L>6mm) | 0.6 | 0.6 |

L<sub>1</sub>=L+1.0 mm MAX L≤11mm  
L<sub>1</sub>=L+1.5 mm MAX, L≥11 mm

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**North America**

Tel: 847.675.1760

sales@illcap.com

**Asia**

Tel: 852.2793 0931

sales@illcap.com.hk

# ULR

+105°C 2000 hour Low ESR

| 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>100 kHz,<br>+105°C | Dims DxL (mm) |
|------------------|------|----------------|-------------------------------------|---------------------------------------|----------------------|-------------------------------------------------------|---------------|
| 22               | 10   | 226ULR010MEF   | 7.54                                | 45                                    | 280                  | 1870                                                  | 6.3x8         |
| 22               | 25   | 226ULR025MEF   | 7.54                                | 45                                    | 280                  | 1870                                                  | 6.3x8         |
| 33               | 10   | 336ULR010MEF   | 5.02                                | 35                                    | 280                  | 2000                                                  | 6.3x8         |
| 33               | 20   | 336ULR020MEF   | 5.02                                | 35                                    | 280                  | 2000                                                  | 6.3x8         |
| 33               | 25   | 336ULR025MFF   | 5.02                                | 40                                    | 280                  | 2050                                                  | 8x8           |
| 47               | 10   | 476ULR010MEF   | 3.53                                | 32                                    | 800                  | 2100                                                  | 6.3x8         |
| 47               | 20   | 476ULR020MFF   | 3.53                                | 33                                    | 280                  | 2100                                                  | 8x8           |
| 47               | 25   | 476ULR025MFF   | 3.53                                | 36                                    | 280                  | 2100                                                  | 8x8           |
| 100              | 16   | 107ULR016MEH   | 1.66                                | 24                                    | 320                  | 2820                                                  | 6.3x11        |
| 100              | 16   | 107ULR016MEF   | 1.66                                | 24                                    | 320                  | 2820                                                  | 6.3x8         |
| 100              | 20   | 107ULR020MFH   | 1.66                                | 32                                    | 400                  | 2750                                                  | 8x11.5        |
| 100              | 25   | 107ULR025MFH   | 1.66                                | 10                                    | 500                  | 2750                                                  | 8x11.5        |
| 100              | 35   | 107ULR035MGU   | 1.66                                | 60                                    | 700                  | 2000                                                  | 10x12.5       |
| 150              | 20   | 157ULR020MGU   | 1.11                                | 28                                    | 600                  | 2900                                                  | 10x12.5       |
| 180              | 16   | 187ULR016MFH   | 0.92                                | 13                                    | 576                  | 5000                                                  | 8x11.5        |
| 220              | 2.5  | 227ULR2R5MEW   | 0.75                                | 15                                    | 280                  | 3400                                                  | 6.3x6         |
| 220              | 10   | 227ULR010MEF   | 0.75                                | 12                                    | 440                  | 3200                                                  | 6.3x8         |
| 220              | 10   | 227ULR010MEW   | 0.75                                | 15                                    | 440                  | 2700                                                  | 6.3x6         |
| 220              | 16   | 227ULR016MFH   | 0.75                                | 13                                    | 704                  | 5000                                                  | 8x11.5        |
| 220              | 16   | 227ULR016MEH   | 0.75                                | 20                                    | 704                  | 3100                                                  | 6.3x11        |
| 220              | 16   | 227ULR016MFF   | 0.75                                | 13                                    | 704                  | 4300                                                  | 8x8           |
| 220              | 35   | 227ULR035MGU   | 0.75                                | 50                                    | 1540                 | 2500                                                  | 10x12.5       |
| 270              | 4    | 277ULR4R0MEF   | 0.61                                | 12                                    | 280                  | 3200                                                  | 6.3x8         |
| 270              | 6.3  | 277ULR6R3MDY   | 0.61                                | 11                                    | 340                  | 3700                                                  | 5x7           |
| 270              | 10   | 277ULR010MFH   | 0.61                                | 11                                    | 540                  | 5100                                                  | 8x11.5        |
| 270              | 10   | 277ULR010MFF   | 0.61                                | 14                                    | 540                  | 4420                                                  | 8x8           |
| 270              | 16   | 277ULR016MFH   | 0.61                                | 13                                    | 864                  | 5000                                                  | 8x11.5        |
| 270              | 16   | 277ULR016MFF   | 0.61                                | 13                                    | 864                  | 4300                                                  | 8x8           |
| 330              | 6.3  | 337ULR6R3MEF   | 0.5                                 | 10                                    | 416                  | 4500                                                  | 6.3x8         |
| 330              | 6.3  | 337ULR6R3MFF   | 0.5                                 | 8                                     | 416                  | 5700                                                  | 8x8           |
| 330              | 6.3  | 337ULR6R3MEW   | 0.5                                 | 20                                    | 416                  | 3160                                                  | 6.3x6         |
| 330              | 16   | 337ULR016MFF   | 0.5                                 | 13                                    | 1056                 | 4300                                                  | 8x8           |
| 330              | 16   | 337ULR016MGU   | 0.5                                 | 10                                    | 1056                 | 6100                                                  | 10x12.5       |
| 330              | 25   | 337ULR025MGU   | 0.5                                 | 45                                    | 1650                 | 2700                                                  | 10x12.5       |
| 390              | 2.5  | 397ULR2R5MEW   | 0.43                                | 15                                    | 280                  | 3400                                                  | 6.3x6         |
| 390              | 6.3  | 397ULR6R3MFF   | 0.43                                | 8                                     | 492                  | 5700                                                  | 8x8           |
| 390              | 10   | 397ULR010MFF   | 0.43                                | 11                                    | 780                  | 5000                                                  | 8x8           |
| 390              | 10   | 397ULR010MFH   | 0.43                                | 9                                     | 780                  | 6100                                                  | 8x11.5        |
| 470              | 2.5  | 477ULR2R5MDK   | 0.35                                | 7                                     | 280                  | 4180                                                  | 5x9           |
| 470              | 6.3  | 477ULR6R3MFH   | 0.35                                | 7                                     | 592                  | 6100                                                  | 8x11.5        |
| 470              | 6.3  | 477ULR6R3MEF   | 0.35                                | 8                                     | 592                  | 4700                                                  | 6.3x8         |
| 470              | 6.3  | 477ULR6R3MFF   | 0.35                                | 8                                     | 593                  | 5700                                                  | 8x8           |
| 470              | 10   | 477ULR010MFF   | 0.35                                | 11                                    | 940                  | 5000                                                  | 8x8           |
| 470              | 10   | 477ULR010MGH   | 0.35                                | 9                                     | 940                  | 5650                                                  | 8x11.5        |
| 470              | 10   | 477ULR010MGU   | 0.35                                | 8                                     | 940                  | 6100                                                  | 10x12.5       |
| 470              | 16   | 477ULR016MGU   | 0.35                                | 10                                    | 1504                 | 6100                                                  | 10x12.5       |
| 470              | 16   | 477ULR016MFH   | 0.35                                | 11                                    | 1504                 | 5100                                                  | 8x11.5        |
| 560              | 2.5  | 567ULR2R5MFF   | 0.3                                 | 7                                     | 280                  | 4000                                                  | 6.3x8         |
| 560              | 2.5  | 567ULR2R5MDF   | 0.3                                 | 7                                     | 280                  | 4180                                                  | 5x8           |
| 560              | 2.5  | 567ULR2R5MDK   | 0.3                                 | 7                                     | 280                  | 4180                                                  | 5x9           |
| 560              | 2.5  | 567ULR2R5MEF   | 0.3                                 | 7                                     | 280                  | 6100                                                  | 8x8           |
| 560              | 4    | 567ULR4R0MEF   | 0.3                                 | 7                                     | 448                  | 5600                                                  | 6.3x8         |
| 560              | 4    | 567ULR4R0MFH   | 0.3                                 | 7                                     | 448                  | 6100                                                  | 8x11.5        |
| 560              | 4    | 567ULR4R0MFF   | 0.3                                 | 7                                     | 448                  | 6100                                                  | 8x8           |
| 560              | 6.3  | 567ULR6R3MEF   | 0.3                                 | 8                                     | 706                  | 4700                                                  | 6.3x8         |
| 560              | 6.3  | 567ULR6R3MFF   | 0.3                                 | 8                                     | 706                  | 5700                                                  | 8x8           |
| 560              | 10   | 567ULR010MFF   | 0.3                                 | 9                                     | 1120                 | 5600                                                  | 8x8           |
| 680              | 4    | 687ULR4R0MFH   | 0.24                                | 7                                     | 544                  | 6100                                                  | 8x11.5        |

# ULR

**+105°C 2000 hour Low ESR**

| Capacitance<br>(μF) | WVDC | IC PART NUMBER | Maximum<br>ESR (Ω)<br>120 Hz,<br>+20°C | Maximum<br>ESR (mΩ)<br>100 kHz,<br>+20°C | Leakage<br>Current<br>(μA) | Maximum<br>RMS<br>Ripple<br>Current<br>(mA)<br>100 kHz,<br>+105°C | Dims DxL<br>(mm) |
|---------------------|------|----------------|----------------------------------------|------------------------------------------|----------------------------|-------------------------------------------------------------------|------------------|
| 680                 | 4    | 687ULR4R0MFF   | 0.24                                   | 7                                        | 544                        | 6100                                                              | 8x8              |
| 680                 | 6.3  | 687ULR6R3MFH   | 0.24                                   | 7                                        | 857                        | 6100                                                              | 8x11.5           |
| 680                 | 6.3  | 687ULR6R3MGU   | 0.24                                   | 7                                        | 857                        | 6640                                                              | 10x12.5          |
| 680                 | 10   | 687ULR010MFH   | 0.24                                   | 10                                       | 1360                       | 5800                                                              | 8x11.5           |
| 680                 | 10   | 687ULR010MGU   | 0.24                                   | 8                                        | 1360                       | 6100                                                              | 10x12.5          |
| 680                 | 16   | 687ULR016MGU   | 0.24                                   | 10                                       | 2176                       | 6100                                                              | 10x12.5          |
| 820                 | 2.5  | 827ULR2R5MEF   | 0.2                                    | 7                                        | 410                        | 5600                                                              | 6.3x8            |
| 820                 | 2.5  | 827ULR2R5MFF   | 0.2                                    | 7                                        | 410                        | 6100                                                              | 8x8              |
| 820                 | 2.5  | 827ULR2R5MFH   | 0.2                                    | 7                                        | 410                        | 6100                                                              | 8x11.5           |
| 820                 | 4    | 827ULR4R0MFF   | 0.2                                    | 7                                        | 656                        | 6100                                                              | 8x8              |
| 820                 | 4    | 827ULR4R0MFH   | 0.2                                    | 7                                        | 656                        | 6100                                                              | 8x11.5           |
| 820                 | 6.3  | 827ULR6R3MFF   | 0.2                                    | 7                                        | 1033                       | 6100                                                              | 8x8              |
| 820                 | 6.3  | 827ULR6R3MFH   | 0.2                                    | 7                                        | 1033                       | 6100                                                              | 8x11.5           |
| 820                 | 6.3  | 827ULR6R3MGH   | 0.2                                    | 7                                        | 1033                       | 6640                                                              | 10x12.5          |
| 820                 | 10   | 827ULR010MFH   | 0.2                                    | 8                                        | 1640                       | 6100                                                              | 8x11.5           |
| 820                 | 16   | 827ULR016MGU   | 0.2                                    | 10                                       | 2624                       | 6100                                                              | 10x12.5          |
| 1000                | 2.5  | 108ULR2R5MFH   | 0.17                                   | 7                                        | 500                        | 6100                                                              | 8x11.5           |
| 1000                | 4    | 108ULR4R0MFF   | 0.17                                   | 7                                        | 800                        | 6100                                                              | 8x8              |
| 1000                | 4    | 108ULR4R0MGU   | 0.17                                   | 7                                        | 800                        | 6640                                                              | 10x12.5          |
| 1000                | 6.3  | 108ULR6R3MFH   | 0.17                                   | 7                                        | 1260                       | 6100                                                              | 8x11.5           |
| 1000                | 16   | 108ULR016MGU   | 0.17                                   | 10                                       | 3200                       | 6100                                                              | 10x12.5          |
| 1200                | 4    | 128ULR4R0MFF   | 0.14                                   | 7                                        | 960                        | 6100                                                              | 8x8              |
| 1200                | 6.3  | 128ULR6R3MFH   | 0.14                                   | 7                                        | 1512                       | 6100                                                              | 8x11.5           |
| 1200                | 10   | 128ULR010MEF   | 0.14                                   | 8                                        | 2400                       | 6200                                                              | 10x12.5          |
| 1500                | 2.5  | 158ULR2R5MFH   | 0.11                                   | 7                                        | 750                        | 6100                                                              | 8x11.5           |
| 1500                | 2.5  | 158ULR2R5MGU   | 0.11                                   | 7                                        | 750                        | 6100                                                              | 10x12.5          |
| 1500                | 6.3  | 158ULR6R3MGU   | 0.11                                   | 10                                       | 1890                       | 5560                                                              | 10x12.5          |
| 2700                | 2.5  | 278ULR2R5MGU   | 0.06                                   | 8                                        | 1350                       | 5660                                                              | 10x12.5          |
| 2700                | 4    | 278ULR4R0MGU   | 0.06                                   | 8                                        | 2160                       | 6900                                                              | 10x12.5          |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.