

# JZM

## +105°C Low Impedance Radial Lead Aluminum Electrolytic Capacitors



### Features

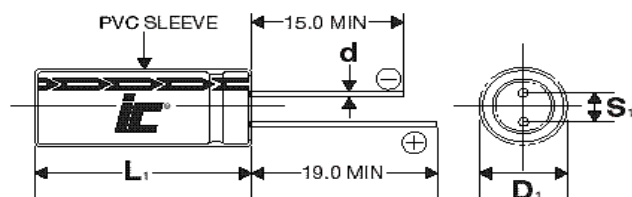
- Very low ESR
- High frequency
- High Ripple current

### Applications

- Bypass
- Coupling
- Filtering
- De-coupling

### Specifications

| Operating Temperature Range                              |                | -40°C to +105°C                                                |     |                                  |     |      |                  |     |     |  |  |  |
|----------------------------------------------------------|----------------|----------------------------------------------------------------|-----|----------------------------------|-----|------|------------------|-----|-----|--|--|--|
| Capacitance Tolerance                                    |                | +20% at 120 Hz, 20°C                                           |     |                                  |     |      |                  |     |     |  |  |  |
| Surge voltage                                            | WVDC           | 6.3                                                            | 10  | 16                               | 25  |      |                  |     |     |  |  |  |
|                                                          | SVDC           | 7.9                                                            | 13  | 20                               | 32  |      |                  |     |     |  |  |  |
| Dissipation Factor                                       | WVDC           | 6.3                                                            | 10  | 16                               | 25  |      |                  |     |     |  |  |  |
|                                                          | Tan δ          | .22                                                            | .19 | .16                              | .16 |      |                  |     |     |  |  |  |
|                                                          |                | Add .02 for every 1000uF above 1000uF                          |     |                                  |     |      |                  |     |     |  |  |  |
| Leakage current                                          |                | 2 Minute3                                                      |     |                                  |     |      |                  |     |     |  |  |  |
|                                                          |                | .03CV or 3uA<br>Whichever is greater                           |     |                                  |     |      |                  |     |     |  |  |  |
| Low temperature stability<br>Impedance ratio<br>(120 Hz) | WVDC           | 6.3                                                            | 10  | 16                               | 25  |      |                  |     |     |  |  |  |
|                                                          | -25°C to +20°C | 2                                                              | 2   | 2                                | 2   |      |                  |     |     |  |  |  |
|                                                          | -40°C to +20°C | 3                                                              | 3   | 3                                | 3   |      |                  |     |     |  |  |  |
| Load Life                                                |                | 2000 hours at 105°C with rated WVDC and ripple current applied |     |                                  |     |      |                  |     |     |  |  |  |
|                                                          |                | Capacitance change                                             |     | ≤25% of initial measured value   |     |      |                  |     |     |  |  |  |
|                                                          |                | Dissipation factor                                             |     | ≤200% of maximum specified value |     |      |                  |     |     |  |  |  |
|                                                          |                | Leakage current                                                |     | ≤100% of maximum specified value |     |      |                  |     |     |  |  |  |
| Shelf Life                                               |                | 1000 hours at 105°C with no voltage applied                    |     |                                  |     |      |                  |     |     |  |  |  |
|                                                          |                | Capacitance change                                             |     | ≤25% initial measured value      |     |      |                  |     |     |  |  |  |
|                                                          |                | Dissipation factor                                             |     | ≤200% of maximum specified value |     |      |                  |     |     |  |  |  |
|                                                          |                | Leakage current                                                |     | ≤100% of maximum specified value |     |      |                  |     |     |  |  |  |
| Ripple Current Multipliers                               |                | Frequency (Hz)                                                 |     |                                  |     |      | Temperature (°C) |     |     |  |  |  |
|                                                          |                | 50                                                             | 120 | 1k                               | 10k | 100k | +105             | +85 | +65 |  |  |  |
|                                                          |                | 0.5                                                            | 0.5 | 0.8                              | 0.9 | 1.0  | 1.0              | 1.7 | 2.1 |  |  |  |



| D | 8   | 10  | 12.5 |
|---|-----|-----|------|
| S | 3.5 | 5.0 | 5.0  |
| d | 0.6 | 0.6 | 0.6  |

L<sub>1</sub>=L+1.5mm Max.  
D<sub>1</sub>=D+0.5mm Max.  
S<sub>1</sub>=S+0.5 mm



# JZM

+105°C, Very low ESR 2000 hours

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum ESR Ω 120Hz, +25°C | Maximum ESR Ω 100kHz +25°C | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxL (mm) |
|------------------|------|----------------|----------------------------|----------------------------|-------------------------------------------------|---------------|
| 470              | 16   | 477JZM016M     | 0.564                      | 0.036                      | 1100                                            | 8x11.5        |
| 470              | 25   | 477JZM025M     | 0.564                      | 0.019                      | 2030                                            | 10x16         |
| 680              | 10   | 687JZM010M     | 0.463                      | 0.036                      | 1200                                            | 8x14          |
| 680              | 16   | 687JZM016M     | 0.39                       | 0.028                      | 1530                                            | 8x16          |
| 680              | 16   | 687JZM016MLN   | 0.39                       | 0.028                      | 1530                                            | 10x12.5       |
| 820              | 6.3  | 827JZM6R3M     | 0.445                      | 0.036                      | 1160                                            | 8x11.5        |
| 1000             | 10   | 108JZM010M     | 0.315                      | 0.028                      | 1540                                            | 8x16          |
| 1000             | 10   | 108JZM010MLN   | 0.315                      | 0.028                      | 1570                                            | 10x12.5       |
| 1000             | 16   | 108JZM016M     | 0.265                      | 0.019                      | 2050                                            | 8x20          |
| 1000             | 16   | 108JZM016MLJ   | 0.265                      | 0.019                      | 2060                                            | 10x16         |
| 1200             | 6.3  | 128JZM6R3M     | 0.304                      | 0.028                      | 1630                                            | 8x16          |
| 1500             | 6.3  | 158JZM6R3M     | 0.265                      | 0.02                       | 1640                                            | 10x12.5       |

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum ESR Ω 120Hz, +25°C | Maximum ESR Ω 100kHz +25°C | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxL (mm) |
|------------------|------|----------------|----------------------------|----------------------------|-------------------------------------------------|---------------|
| 1500             | 10   | 158JZM010M     | 0.232                      | 0.019                      | 1990                                            | 8x20          |
| 1500             | 10   | 158JZM010MLQ   | 0.232                      | 0.019                      | 2040                                            | 10x16         |
| 1500             | 16   | 158JZM016M     | 0.232                      | 0.013                      | 2640                                            | 10x20         |
| 1800             | 6.3  | 188JZM6R3M     | 0.221                      | 0.018                      | 1990                                            | 10x16         |
| 1800             | 10   | 188JZM010M     | 0.193                      | 0.013                      | 2470                                            | 10x20         |
| 1800             | 16   | 188JZM016M     | 0.166                      | 0.012                      | 3080                                            | 10x23         |
| 2200             | 6.3  | 228JZM6R3M     | 0.196                      | 0.015                      | 2350                                            | 10x20         |
| 2200             | 10   | 228JZM010M     | 0.173                      | 0.012                      | 2780                                            | 10x23         |
| 3300             | 6.3  | 338JZM6R3M     | 0.141                      | 0.012                      | 2890                                            | 10x23         |
| 3900             | 6.3  | 398JZM6R3M     | 0.119                      | 0.012                      | 3230                                            | 10x26         |
| 4700             | 6.3  | 478JZM6R3M     | 0.106                      | 0.014                      | 3810                                            | 12.5x26       |