

# DCR

## Radial Leaded Super Capacitors



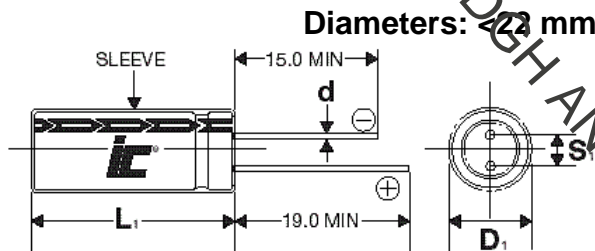
### FEATURES

Very fast charge/discharge – High power density – IEC 62391 compliant – Circuit board mountable

### APPLICATIONS

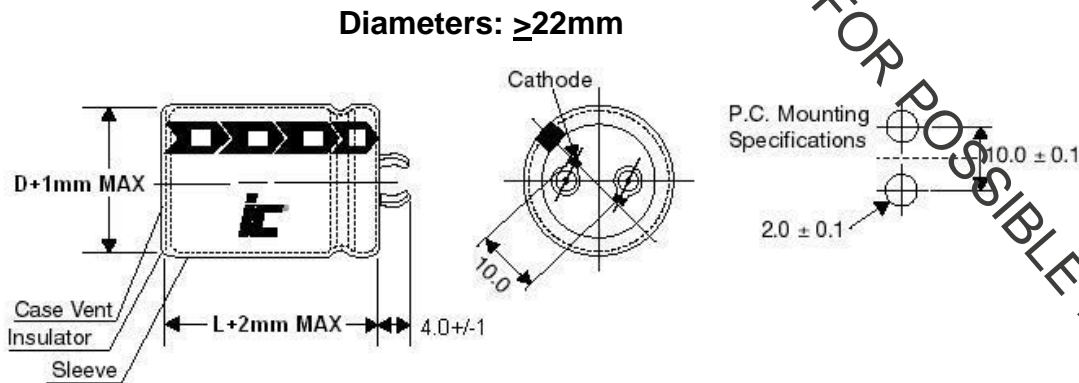
Battery backup/ alternative – Pulse power – Energy harvesting – LED Displays – Mechanical actuators – Audio systems

|   |             |                           |                                     |
|---|-------------|---------------------------|-------------------------------------|
| <b>Operating Temperature Range</b>  |             | <b>-25°C to +70°C</b>     |                                     |
| <b>Capacitance Tolerance</b>  |             | <b>-20%/+50% @ 20°C</b>   |                                     |
| <b>Voltage</b>  | <b>WVDC</b> | <b>2.3</b>                |                                     |
|   | <b>SVDC</b> | <b>2.5</b>                |                                     |
| <b>Maximum Current</b>  |             | See standard part listing | 1 second discharge to ½ WVDC        |
| <b>Leakage Current</b>  |             | See standard part listing | 72 hours, 25°C                      |
| <b>1000 hours at rated voltage and 70°C</b>   |             |                           |                                     |
| <b>Endurance</b>  |             | <b>Capacitance Change</b> | ±30% of initially measured values   |
|   |             | <b>ESR</b>                | ≤200% of initially specified values |
| <b>Life Cycles</b><br>(25°C) 1 cycle= Charge to WVDC for 20s, constant voltage charging for 10s, discharge to ½ WVDC for 20s, rest for 10 s |             | <b>25,000 cycles</b>      |                                     |
|   |             | <b>Capacitance Change</b> | ±30% of initially measured values   |
|   |             | <b>ESR</b>                | ≤200% of initially specified values |



| D | 10  | 16  | 18  |
|---|-----|-----|-----|
| S | 5.0 | 7.5 | 7.5 |
| d | 0.6 | 0.8 | 0.8 |

$L_1 = L (<20\text{mm} + 1.5\text{mm}) (\geq 20\text{mm} + 2.0\text{mm})$   
 $D_1 = D (<20\text{mm} + 0.5\text{mm}) (\geq 20\text{mm} + 1.0\text{mm})$   
 $S_1 = S \pm 0.5\text{mm}$



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Radial Lead, High energy

| WVDC | Capacitance (F) | IC PART NUMBER | MAX Current (A) | ESR AC 1 kHz (mΩ) | DC ESR (mΩ) 20°C | Max stored energy (mWh) | LC (mA), (72 hrs) | Specific Energy Gravimetric Density (wh/kg) | Specific Energy Volumetric Density (wh/l) | Specific Power Gravimetric Density (kw/kg) | Specific Power Volumetric Density (kw/l) | Weight (grams) | Volume (mL) | Dims DxL (mm) | Lead Spacing (mm) |
|------|-----------------|----------------|-----------------|-------------------|------------------|-------------------------|-------------------|---|---|--|--|----------------|-------------|---------------|-------------------|
| 2.3  | 10.0            | 106DCR2R35GU   | 2.3             | 220               | 400              | 7.3472                  | 0.05              | 3.6736                                      | 4.6774                                    | 0.794                                      | 1.0103                                   | 2              | 1.5708      | 10x20         | 5                 |
| 2.3  | 22.0            | 226DCR2R35ST   | 5.34            | 120               | 170              | 16.1639                 | 0.065             | 4.6852                                      | 6.5858                                    | 1.082                                      | 1.5214                                   | 3.45           | 2.4544      | 12.5x20       | 5                 |
| 2.3  | 30.0            | 306DCR2R35D    | 5.95            | 100               | 160              | 22.0417                 | 0.085             | 5.8004                                      | 7.1845                                    | 1.044                                      | 1.2932                                   | 3.8            | 3.068       | 12.5x25       | 5                 |
| 2.3  | 50.0            | 506DCR2R35KV   | 9.58            | 60                | 100              | 36.7361                 | 0.11              | 5.248                                       | 7.3084                                    | 0.9069                                     | 1.2629                                   | 7              | 5.0265      | 16x25         | 7.5               |
| 2.3  | 70.0            | 706DCR2R35KY   | 11.58           | 50                | 85               | 51.4306                 | 0.15              | 6.1593                                      | 7.3084                                    | 0.894                                      | 1.0613                                   | 8.35           | 7.0372      | 16x35         | 7.5               |
| 2.3  | 120.0           | 127DCR2R35LZ   | 15.68           | 35                | 65               | 88.1667                 | 0.4               | 5.44  | 8.6618                                    | 0.603                                      | 0.9595                                   | 16.2           | 10.179      | 18x40         | 7.5               |
| 2.3  | 220.0           | 227DCR2R35NI   | 23.61           | 25                | 45               | 161.1639                | 0.9               | 6.4656                                      | 9.0472                                    | 0.5643                                     | 0.7896                                   | 25             | 17.866      | 22x47         | 10                |
| 2.3  | 400.0           | 407DCR2R35DG   | 41.82           | 20                | 25               | 293.8889                | 2                 | 4.432                                       | 9.2393                                    | 0.3829                                     | 0.7983                                   | 66.31          | 31.809      | 30x45         | 10                |
| 2.3  | 600.0           | 607DCR2R35DZ   | 53.08           | 15                | 20               | 440.8333                | 4                 | 6.5649                                      | 10.394                                    | 0.473                                      | 0.7484                                   | 67.15          | 42.412      | 30x60         | 10                |
| 2.3  | 800.0           | 807DCR2R35EK   | 70.77           | 10                | 15               | 587.7778                | 7.2               | 7.9926                                      | 8.7275                                    | 0.5755                                     | 0.6284                                   | 73.54          | 67.348      | 35x70         | 10                |