

# CKR/ CKS

查询"470CKS450MQW"供应海

## +85°C General Purpose Aluminum Electrolytic Capacitors



### FEATURES

- Lead Free Leads
- In Stock
- Standardized Case Sizes
- Multiple Case Styles

### SPECIFICATIONS

|  |  |   |                |      |                                      |      |      |   |                  |     |     |     |     |     |     |
|--|--|---|----------------|------|--------------------------------------|------|------|---|------------------|-----|-----|-----|-----|-----|-----|
| Capacitance Tolerance  |  | ±20% at 120Hz, 20°C   |                |      |                                      |      |      |   |                  |     |     |     |     |     |     |
| Operating Temperature Range  |  | -40°C to +85°C (6.3 to 400 WVDC)<br>-25°C to +85°C (450 WVDC) |                |      |                                      |      |      |   |                  |     |     |     |     |     |     |
| Surge Voltage  | WVDC   | 6.3   | 10             | 16   | 25                                   | 35   | 50   | 63  | 100              | 160 | 200 | 250 | 350 | 400 | 450 |
|  | SVDC   | 7.9   | 13             | 20   | 32                                   | 44   | 63   | 79  | 125              | 200 | 250 | 300 | 400 | 450 | 500 |
| Dissipation Factor<br>120Hz, 20°C  | WVDC   | 6.3   | 10             | 16   | 25                                   | 35   | 50   | 63  | 100              | 160 | 200 | 250 | 350 | 400 | 450 |
|  | tan δ  | .24   | .20            | .16  | .14                                  | .12  | .1   | .1  | .08              | .15 | .15 | .15 | .2  | .2  | .2  |
| Note: For above D.F. specifications, add .02 for every 1,000 µF above 1,000 µF |  |   |                |      |                                      |      |      |   |                  |     |     |     |     |     |     |
| Leakage Current  | WVDC   | 6.3 to 100 WVDC   |                |      |                                      |      |      | 160 to 450 WVDC   |                  |     |     |     |     |     |     |
|  | Time   | 1 minutes   |                |      | 2 minutes                            |      |      | 2 minutes   |                  |     |     |     |     |     |     |
|  |  | .03 CV or 4 µA, whichever is greater                          |                |      | .01 CV or 3 µA, whichever is greater |      |      | 0.03CV + 40µA   |                  |     |     |     |     |     |     |
| Impedance Ratio<br>(Max.) @120Hz   | -25°C/20°C                                   | 4   | 3              | 2    | 2                                    | 2    | 2    | 2   | 2                | 3   | 3   | 3   | 6   | 6   | 15  |
|  | -40°C/20°C                                   | 8   | 6              | 4    | 3                                    | 3    | 3    | 3   | 3                | 6   | 6   | 6   | 6   | 6   | -   |
| Load Life  | 2,000 hours at 85°C with rated WVDC          |   |                |      |                                      |      |      |   |                  |     |     |     |     |     |     |
|  |  | Capacitance change<br>Dissipation factor<br>Leakage current   |                |      |                                      |      |      | < 20% of initial measured value<br>≤150% of initial specified value<br><100% Initial specified value  |                  |     |     |     |     |     |     |
| Shelf Life   | 1,000 hours at 85°C with no voltage applied. |   |                |      |                                      |      |      |   |                  |     |     |     |     |     |     |
|  |  | Capacitance change<br>Dissipation factor<br>Leakage current   |                |      |                                      |      |      | ≤ 20% of initial measured value<br>≤ 200% of initial specified value<br>< The initial specified value |                  |     |     |     |     |     |     |
| Ripple Current Multipliers   |  |   | Frequency (Hz) |      |                                      |      |      |   | Temperature (°C) |     |     |     |     |     |     |
|  | Capacitance (µF)                             | 50  | 120            | 400  | 1K                                   | 10K  | 100K | +85   | +70              | +60 |     |     |     |     |     |
|  | C≤10   | 0.8   | 1.0            | 1.3  | 1.45                                 | 1.65 | 1.7  | 1.0   | 1.3              | 1.5 |     |     |     |     |     |
|  | 10<C≤100                                     | 0.8   | 1.0            | 1.23 | 1.36                                 | 1.48 | 1.53 | 1.0   | 1.3              | 1.5 |     |     |     |     |     |
|  | 100<C≤1000                                   | 0.8   | 1.0            | 1.16 | 1.25                                 | 1.35 | 1.38 | 1.0   | 1.3              | 1.5 |     |     |     |     |     |
| C>1000   | 0.8  | 1.0   | 1.11           | 1.17 | 1.25                                 | 1.28 | 1.0  | 1.3   | 1.5              |     |     |     |     |     |     |

### SPECIAL ORDER OPTIONS

- Special tolerances: ±10% (K), -10% + 30%
- Epoxy end sealed
- Ammo Pack
- Mylar sleeve
- Cut, Formed, Cut and Formed Leads



ILLINOIS CAPACITOR, INC. 3757 W. Touhy Ave., Lincolnwood, IL 60712 • (847) 675-1760 • Fax (847) 673-2850 • www.illcap.com

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## PHYSICAL DIMENSIONS

| WVDC (SV)<br>(μF) | 6.3 (8) | 10 (13) | 16 (20) | 25 (32) | 35 (44) | 50 (63)        | 63 (79) | 100 (125)         | 160 (200)                   | 200 (250)         | 250 (300)                     | 350 (400)                   | 400 (450)        | 450 (500)                   |
|-------------------|---------|---------|---------|---------|---------|----------------|---------|-------------------|-----------------------------|-------------------|-------------------------------|-----------------------------|------------------|-----------------------------|
| 0.1               |         |         |         |         |         | 5x11           |         |                   |                             |                   |                               |                             |                  |                             |
| 0.15              |         |         |         |         |         | 5x11           |         |                   |                             |                   |                               |                             |                  |                             |
| 0.22              |         |         |         |         |         | 5x11           |         |                   |                             |                   |                               |                             |                  |                             |
| 0.33              |         |         |         |         |         | 5x11           |         |                   |                             |                   |                               |                             |                  |                             |
| 0.47              |         |         |         |         |         | 5x11           | 5x11    |                   |                             |                   |                               |                             |                  |                             |
| 0.68              |         |         |         |         |         | 5x11           |         |                   |                             |                   |                               |                             |                  |                             |
| 1                 |         |         |         |         |         | 5x11           | 5x11    |                   |                             |                   | 6.3x11                        |                             |                  | 8x11.5                      |
| 1.5               |         |         |         |         |         | 5x11           |         |                   |                             |                   |                               |                             |                  |                             |
| 2.2               |         |         |         |         |         | 5x11           | 5x11    |                   |                             |                   | 6.3x11<br>8x11.5              | 6.3x11                      | 8x11.5           | 8x11.5<br>10x12.5           |
| 3.3               |         |         |         |         |         | 5x11           | 5x11    |                   |                             |                   | 6.3x11                        | 6.3x11<br>8x11.5            | 8x11.5           | 8x11.5<br>10x12.5<br>10x16  |
| 4.7               |         |         |         |         |         | 5x11           | 5x11    |                   |                             |                   | 6.3x11<br>8x11.5              | 6.3x11<br>8x11.5            | 6.3x11<br>8x11.5 | 10x12.5                     |
| 6.8               |         |         |         |         |         | 5x11           | 5x11    |                   |                             |                   |                               |                             |                  |                             |
| 10                |         |         |         |         |         | 5x11           | 5x11    | 5x11<br>6.3x11    | 8x11.5                      | 10x12.5<br>8x11.5 | 10x12.5<br>10x16              | 10x12.5<br>10x20            | 10x16            | 10x20<br>12.5x20            |
| 15                |         |         |         |         |         | 5x11           | 5x11    | 8x11.5            |                             |                   |                               |                             |                  |                             |
| 22                |         |         |         |         |         | 5x11           | 5x11    | 6.3x11<br>8x11.5  | 10x12.5<br>10x16            | 10x16<br>10x20    | 10x20<br>12.5x25              | 12.5x20                     | 12.5x25          | 13x26<br>16x25              |
| 33                |         |         |         |         |         | 5x11<br>6.3x11 | 6.3x11  | 10x12.5<br>8x11.5 | 10x16<br>10x20              | 10x20             | 12.5x20                       | 12.5x25                     | 16x25            | 16x25<br>16x31.5            |
| 47                |         |         |         |         |         | 5x11           | 6.3x11  | 6.3x11<br>8x11.5  | 10x12.5<br>10x16<br>8x11.5  | 10x21<br>12.5x20  | 12.5x20                       | 12.5x20<br>12.5x25<br>16x25 | 16x25            | 16x25<br>16x31.5<br>16x35.5 |
| 68                |         |         |         |         |         | 6.3x11         | 8x11.5  | 10x12.5           | 10x16                       |                   |                               |                             |                  |                             |
| 100               |         |         |         |         |         | 5x11           | 5x11    | 6.3x11            | 8x11.5                      | 10x12.5<br>8x11.5 | 10x16<br>10x20<br>12.5x20     | 12.5x25                     | 16x25            | 16x25<br>16x31.5<br>18x35.5 |
| 150               |         |         |         |         |         | 6.3x11         | 8x11.5  | 10x12.5           | 10x16                       | 12.5x20           |                               |                             |                  |                             |
| 220               |         |         |         |         |         | 6.3x11         | 6.3x11  | 8x11.5            | 10x12.5<br>8x11.5           | 10x16<br>10x20    | 12.5x20<br>12.5x25<br>16x25   | 16x31.5<br>16x35.5          | 16x35.5          | 18x35.5                     |
| 330               |         |         |         |         |         | 6.3x11         | 6.3x11  | 8x11.5            | 10x12.5                     | 10x16<br>10x20    | 12.5x25<br>16x25              | 18x35.5                     | 18x40            |                             |
| 470               |         |         |         |         |         | 6.3x11         | 8x11.5  | 10x12.5           | 10x16                       | 10x20<br>12.5x20  | 12.5x20<br>12.5x25<br>16x31.5 | 16x25                       | 18x42            |                             |
| 680               |         |         |         |         |         | 10x16          | 12.5x20 | 12.5x25           |                             |                   |                               |                             |                  |                             |
| 1000              |         |         |         |         |         | 8x11.5         | 10x12.5 | 10x16             | 10x12.5<br>10x16<br>12.5x20 | 12.5x20           | 12.5x25                       | 16x25                       | 16x31.5          | 18x40                       |
| 1500              |         |         |         |         |         | 10x16          | 10x20   | 12.5x20           | 12.5x25                     | 16x25             | 16x31.5                       |                             |                  |                             |
| 2200              |         |         |         |         |         | 10x16          | 10x20   | 12.5x20           | 12.5x25                     | 16x25             | 16x31.5                       | 18x35.5                     |                  |                             |
| 3300              |         |         |         |         |         | 10x20          | 12.5x20 | 12.5x25           | 16x25                       | 16x31.5           | 16x35.5                       | 18x35.5                     |                  |                             |
| 4700              |         |         |         |         |         | 12.5x20        | 12.5x25 | 16x25             | 16x31.5                     | 16x35.5           | 18x35.5                       |                             |                  |                             |
| 6800              |         |         |         |         |         | 12.5x25        | 16x25   | 16x31.5           | 16x35.5                     | 18x35.5           |                               |                             |                  |                             |
| 10000             |         |         |         |         |         | 16x25          | 16x31.5 | 16x35.5           | 18x35.5                     |                   |                               |                             |                  |                             |
| 15000             |         |         |         |         |         | 16x31.5        | 16x35.5 | 18x35.5           |                             |                   |                               |                             |                  |                             |
| 22000             |         |         |         |         |         | 18x35.5        | 18x40   |                   |                             |                   |                               |                             |                  |                             |

Convert to inches, divide by 25.4.

DxL(mm)

Aluminum Electrolytic

查询"476CKS450MQW"供应商 STANDARD PART LISTING

PLEASE NOTE: The CKR and CKS Series have been merged. CHECK PART NUMBERS CAREFULLY.

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR Ω<br>120Hz,+20°C | Maximum RMS Ripple Current (mA)<br>120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|----------------|------------------------------|--|---------------------|
| 0.1              | 50   | 104CKR050M     | 1657.864                     | 1.5  | 5x11                |
| 0.15             | 50   | 154CKR050M     | 1105.243                     | 2  | 5x11                |
| 0.22             | 50   | 224CKR050M     | 753.575                      | 9  | 5x11                |
| 0.33             | 50   | 334CKR050M     | 502.383                      | 10   | 5x11                |
| 0.47             | 50   | 474CKR050M     | 352.737                      | 7  | 5x11                |
| 0.47             | 100  | 474CKR100M     | 282.190                      | 12   | 5x11                |
| 0.68             | 50   | 684CKR050M     | 243.804                      | 9  | 5x11                |
| 1                | 50   | 105CKR050M     | 165.786                      | 16   | 5x11                |
| 1                | 100  | 105CKR100M     | 132.629                      | 22   | 5x11                |
| 1                | 250  | 105CKR250M     | 248.680                      | 22   | 6.3x11              |
| 1                | 450  | 105CKS450M     | 331.573                      | 22   | 8x11.5              |
| 1.5              | 50   | 155CKR050M     | 110.524                      | 18   | 5x11                |
| 2.2              | 50   | 225CKR050M     | 75.357                       | 29   | 5x11                |
| 2.2              | 100  | 225CKS100M     | 60.286                       | 34   | 5x11                |
| 2.2              | 250  | 225CKS250M     | 113.036                      | 33   | 6.3x11              |
| 2.2              | 250  | 225CKR250M     | 113.036                      | 31   | 8x11.5              |
| 2.2              | 350  | 225CKS350M     | 150.715                      | 30   | 6.3x11              |
| 2.2              | 400  | 225CKS400M     | 150.715                      | 33   | 8x11.5              |
| 2.2              | 450  | 225CKS450M     | 150.715                      | 35   | 10x12.5             |
| 2.2              | 450  | 225CKS450MJM   | 150.715                      | 28   | 8x11.5              |
| 3.3              | 50   | 335CKS050M     | 50.238                       | 37   | 5x11                |
| 3.3              | 100  | 335CKS100M     | 40.191                       | 42   | 5x11                |
| 3.3              | 200  | 335CKS200M     | 75.357                       | 37   | 6.3x11              |
| 3.3              | 250  | 335CKS250MGM   | 75.357                       | 40   | 6.3x11              |
| 3.3              | 250  | 335CKS250M     | 75.357                       | 46   | 8x11.5              |
| 3.3              | 350  | 335CKS350MJM   | 100.477                      | 43   | 8x11.5              |
| 3.3              | 400  | 335CKS400M     | 100.477                      | 45   | 10x12.5             |
| 3.3              | 400  | 335CKS400MJM   | 100.477                      | 48   | 8x11.5              |
| 3.3              | 450  | 335CKS450MLM   | 100.477                      | 40   | 10x12.5             |
| 3.3              | 450  | 335CKS450M     | 100.477                      | 47   | 10x16               |
| 4.7              | 50   | 475CKS050M     | 35.274                       | 44   | 5x11                |
| 4.7              | 100  | 475CKR100M     | 28.219                       | 48   | 5x11                |
| 4.7              | 160  | 475CKS160M     | 52.911                       | 41   | 6.3x11              |
| 4.7              | 200  | 475CKS200M     | 52.911                       | 50   | 6.3x11              |
| 4.7              | 250  | 475CKS250MGM   | 52.911                       | 50   | 6.3x11              |
| 4.7              | 250  | 475CKS250M     | 52.911                       | 55   | 8x11.5              |
| 4.7              | 350  | 475CKS350M     | 70.547                       | 50   | 10x12.5             |
| 4.7              | 350  | 475CKS350MJM   | 70.547                       | 55   | 8x11.5              |
| 4.7              | 400  | 475CKS400MLN   | 70.547                       | 60   | 10x12.5             |
| 4.7              | 400  | 475CKS400M     | 70.547                       | 60   | 10x16               |
| 4.7              | 450  | 475CKS450MLN   | 70.547                       | 46   | 10x12.5             |
| 4.7              | 450  | 475CKS450M     | 70.547                       | 60   | 10x18               |

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR Ω<br>120Hz,+20°C | Maximum RMS Ripple Current (mA)<br>120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|----------------|------------------------------|--|---------------------|
| 6.8              | 63   | 685CKR063M     | 24.380                       | 51   | 5x11                |
| 10               | 50   | 106CKR050M     | 16.579                       | 65   | 5x11                |
| 10               | 63   | 106CKR063M     | 13.263                       | 67   | 5x11                |
| 10               | 100  | 106CKS100MEM   | 13.263                       | 70   | 5x11                |
| 10               | 100  | 106CKS100M     | 13.263                       | 80   | 6.3x11              |
| 10               | 160  | 106CKS160M     | 24.868                       | 70   | 8x11.5              |
| 10               | 200  | 106CKS200M     | 24.868                       | 80   | 10x12.5             |
| 10               | 200  | 106CKS200MJM   | 24.868                       | 80   | 8x11.5              |
| 10               | 250  | 106CKS250MLN   | 24.868                       | 100  | 10x12.5             |
| 10               | 250  | 106CKS250M     | 24.868                       | 95   | 10x16               |
| 10               | 350  | 106CKS350MLQ   | 33.157                       | 90   | 10x12.5             |
| 10               | 350  | 106CKS350M     | 33.157                       | 95   | 10x20               |
| 10               | 400  | 106CKS400MLQ   | 33.157                       | 90   | 10x16               |
| 10               | 450  | 106CKS450MLU   | 33.157                       | 80   | 10x20               |
| 10               | 450  | 106CKS450M     | 33.157                       | 100  | 12.5x20             |
| 15               | 50   | 156CKR050M     | 11.052                       | 78   | 5x11                |
| 15               | 100  | 156CKR100M     | 8.842                        | 98   | 8x11.5              |
| 22               | 50   | 226CKR050M     | 7.536                        | 95   | 5x11                |
| 22               | 63   | 226CKS063M     | 7.536                        | 100  | 5x11                |
| 22               | 63   | 226CKR063M     | 6.029                        | 104  | 6.3x11              |
| 22               | 100  | 226CKS100M     | 6.029                        | 140  | 6.3x11              |
| 22               | 100  | 226CKR100M     | 6.029                        | 135  | 8x11.5              |
| 22               | 160  | 226CKS160MLN   | 11.304                       | 130  | 10x12.5             |
| 22               | 160  | 226CKS160M     | 11.304                       | 120  | 10x16               |
| 22               | 200  | 226CKS200MLQ   | 11.304                       | 150  | 10x16               |
| 22               | 200  | 226CKS200M     | 11.304                       | 150  | 10x20               |
| 22               | 250  | 226CKS250MLU   | 11.304                       | 150  | 10x20               |
| 22               | 250  | 226CKR250M     | 11.304                       | 160  | 12.5x20             |
| 22               | 350  | 226CKS350M     | 15.071                       | 150  | 12.5x20             |
| 22               | 400  | 226CKS400M     | 15.071                       | 170  | 12.5x25             |
| 22               | 450  | 226CKS450MNV   | 15.071                       | 140  | 13x26               |
| 22               | 450  | 226CKS450M     | 15.071                       | 160  | 16x25               |
| 33               | 50   | 336CKS050M     | 5.024                        | 125  | 5x11                |
| 33               | 50   | 336CKR050M     | 5.024                        | 125  | 6.3x11              |
| 33               | 63   | 336CKR063M     | 5.024                        | 130  | 6.3x11              |
| 33               | 100  | 336CKR100M     | 4.019                        | 190  | 10x12.5             |
| 33               | 100  | 336CKS100M     | 4.019                        | 180  | 8x11.5              |
| 33               | 160  | 336CKS160MLQ   | 7.536                        | 180  | 10x16               |
| 33               | 160  | 336CKS160M     | 7.536                        | 170  | 10x20               |
| 33               | 200  | 336CKS200MLU   | 7.536                        | 200  | 10x20               |
| 33               | 250  | 336CKS250M     | 7.536                        | 210  | 12.5x20             |
| 33               | 350  | 336CKS350M     | 10.048                       | 200  | 12.5x25             |

查询"476CKS450MQW"供应商 **STANDARD PART LISTING**

**PLEASE NOTE:** The CKR and CKS Series have been merged. **CHECK PART NUMBERS CAREFULLY.**

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum ESR Ω<br>120Hz,+20°C | Maximum RMS Ripple Current (mA)<br>120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|----------------|------------------------------|--|---------------------|
| 33               | 400  | 336CKS400M     | 10.048                       | 200  | 16x25               |
| 33               | 450  | 336CKS450MQV   | 10.048                       | 180  | 16x25               |
| 33               | 450  | 336CKS450M     | 10.048                       | 220  | 16x31.5             |
| 47               | 35   | 476CKS035M     | 4.233                        | 130  | 5x11                |
| 47               | 50   | 476CKR050M     | 3.527                        | 150  | 6.3x11              |
| 47               | 63   | 476CKS063M     | 3.527                        | 170  | 6.3x11              |
| 47               | 63   | 476CKR063M     | 3.527                        | 180  | 8x11.5              |
| 47               | 100  | 476CKS100M     | 2.822                        | 230  | 10x12.5             |
| 47               | 100  | 476CKR100M     | 2.822                        | 240  | 10x16               |
| 47               | 100  | 476CKR100MJM   | 2.822                        | 200  | 8x11.5              |
| 47               | 160  | 476CKS160MLU   | 5.291                        | 210  | 10x21               |
| 47               | 160  | 476CKS160M     | 5.291                        | 220  | 12.5x20             |
| 47               | 200  | 476CKS200M     | 5.291                        | 240  | 12.5x20             |
| 47               | 250  | 476CKS250MNU   | 5.291                        | 270  | 12.5x20             |
| 47               | 250  | 476CKS250M     | 5.291                        | 280  | 12.5x25             |
| 47               | 250  | 476CKR250M     | 5.291                        | 260  | 16x25               |
| 47               | 350  | 476CKS350M     | 7.055                        | 230  | 16x25               |
| 47               | 400  | 476CKS400MQV   | 7.055                        | 280  | 16x25               |
| 47               | 400  | 476CKR400M     | 7.055                        | 270  | 16x31.5             |
| 47               | 450  | 476CKS450MQW   | 7.055                        | 220  | 16x31.5             |
| 47               | 450  | 476CKS450M     | 7.055                        | 290  | 18x35.5             |
| 68               | 25   | 686CKR025M     | 3.413                        | 170  | 6.3x11              |
| 68               | 50   | 686CKR050M     | 2.438                        | 200  | 8x11.5              |
| 68               | 63   | 686CKR063M     | 1.950                        | 215  | 10x12.5             |
| 68               | 100  | 686CKR100M     | 1.950                        | 282  | 10x16               |
| 100              | 16   | 107CKS016M     | 2.653                        | 160  | 5x11                |
| 100              | 25   | 107CKS025MEM   | 2.321                        | 180  | 5x11                |
| 100              | 35   | 107CKS035M     | 1.989                        | 210  | 6.3x11              |
| 100              | 50   | 107CKR050M     | 1.658                        | 255  | 8x11.5              |
| 100              | 63   | 107CKR063M     | 1.658                        | 296  | 10x12.5             |
| 100              | 63   | 107CKS063MJM   | 1.658                        | 280  | 8x11.5              |
| 100              | 100  | 107CKS100MLQ   | 1.326                        | 340  | 10x16               |
| 100              | 100  | 107CKS100M     | 1.326                        | 370  | 10x20               |
| 100              | 100  | 107CKR100M     | 1.326                        | 440  | 12.5x20             |
| 100              | 160  | 107CKS160M     | 2.487                        | 350  | 12.5x25             |
| 100              | 200  | 107CKS200M     | 2.487                        | 360  | 16x25               |
| 100              | 250  | 107CKS250MQV   | 2.487                        | 440  | 16x25               |
| 100              | 250  | 107CKS250M     | 2.487                        | 440  | 16x31.5             |
| 100              | 350  | 107CKS350M     | 3.316                        | 420  | 18x35.5             |
| 100              | 400  | 107CKS400M     | 3.316                        | 440  | 18x35.5             |
| 100              | 450  | 107CKS450M     | 3.316                        | 280  | 18x40               |
| 150              | 10   | 157CKR010M     | 2.210                        | 188  | 6.3x11              |
| 150              | 25   | 157CKR025M     | 1.547                        | 258  | 8x11.5              |

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum ESR Ω<br>120Hz,+20°C | Maximum RMS Ripple Current (mA)<br>120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|----------------|------------------------------|--|---------------------|
| 150              | 35   | 157CKR035M     | 1.326                        | 291  | 10x12.5             |
| 150              | 50   | 157CKR050M     | 1.105                        | 330  | 10x16               |
| 150              | 100  | 157CKR100M     | 0.884                        | 425  | 12.5x20             |
| 220              | 10   | 227CKS010M     | 1.507                        | 240  | 5x11                |
| 220              | 10   | 227CKR010M     | 1.507                        | 250  | 6.3x11              |
| 220              | 16   | 227CKS016M     | 1.206                        | 260  | 6.3x11              |
| 220              | 25   | 227CKS025MGM   | 1.055                        | 280  | 6.3x11              |
| 220              | 25   | 227CKR025M     | 1.055                        | 340  | 8x11.5              |
| 220              | 35   | 227CKR035M     | 0.904                        | 390  | 10x12.5             |
| 220              | 35   | 227CKS035M     | 0.904                        | 385  | 8x11.5              |
| 220              | 50   | 227CKS050M     | 0.754                        | 430  | 10x12.5             |
| 220              | 50   | 227CKR050M     | 0.754                        | 470  | 10x16               |
| 220              | 63   | 227CKS063M     | 0.754                        | 490  | 10x16               |
| 220              | 63   | 227CKR063M     | 0.754                        | 530  | 10x20               |
| 220              | 100  | 227CKS100MNU   | 0.603                        | 550  | 12.5x20             |
| 220              | 100  | 227CKS100M     | 0.603                        | 680  | 12.5x25             |
| 220              | 100  | 227CKR100M     | 0.603                        | 690  | 16x25               |
| 220              | 160  | 227CKS160MQW   | 1.130                        | 580  | 16x31.5             |
| 220              | 160  | 227CKS160M     | 1.130                        | 580  | 16x35.5             |
| 220              | 200  | 227CKS200M     | 1.130                        | 700  | 16x35.5             |
| 220              | 250  | 227CKS250M     | 1.130                        | 680  | 18x35.5             |
| 330              | 10   | 337CKS010M     | 1.005                        | 290  | 6.3x11              |
| 330              | 16   | 337CKS016MGM   | 0.804                        | 320  | 6.3x11              |
| 330              | 25   | 337CKS025M     | 0.703                        | 440  | 8x11.5              |
| 330              | 35   | 337CKS035M     | 0.603                        | 490  | 10x12.5             |
| 330              | 50   | 337CKS050M     | 0.502                        | 585  | 10x16               |
| 330              | 50   | 337CKR050M     | 0.502                        | 650  | 10x20               |
| 330              | 63   | 337CKS063M     | 0.502                        | 710  | 10x20               |
| 330              | 100  | 337CKS100M     | 0.402                        | 840  | 12.5x25             |
| 330              | 100  | 337CKR100M     | 0.402                        | 840  | 16x25               |
| 330              | 160  | 337CKS160M     | 0.754                        | 800  | 18x35.5             |
| 330              | 200  | 337CKS200M     | 0.754                        | 950  | 18x40               |
| 470              | 10   | 477CKS010M     | 0.705                        | 370  | 6.3x11              |
| 470              | 16   | 477CKS016M     | 0.564                        | 470  | 8x11.5              |
| 470              | 25   | 477CKS025M     | 0.494                        | 545  | 10x12.5             |
| 470              | 35   | 477CKS035M     | 0.423                        | 645  | 10x16               |
| 470              | 50   | 477CKS050M     | 0.353                        | 755  | 10x20               |
| 470              | 50   | 477CKR050M     | 0.353                        | 850  | 12.5x20             |
| 470              | 63   | 477CKS063M     | 0.353                        | 900  | 12.5x20             |
| 470              | 63   | 477CKR063M     | 0.353                        | 930  | 12.5x25             |
| 470              | 100  | 477CKS100M     | 0.282                        | 1010   | 16x25               |
| 470              | 100  | 477CKR100M     | 0.282                        | 1120   | 16x31.5             |
| 470              | 160  | 477CKS160M     | 0.529                        | 1200   | 18x42               |

Aluminum Electrolytic

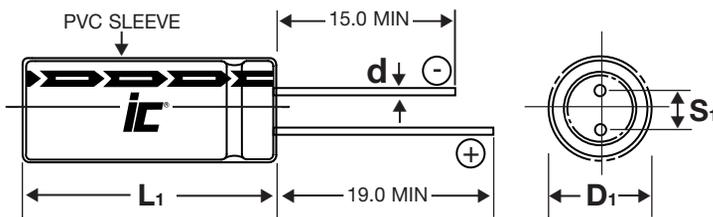
**PLEASE NOTE:**  
The CKR and CKS Series have been merged.

重電4P8CKR05M3S"供應商  
CAREFULLY.

## STANDARD PART LISTING

| Capacitance (µF) | WVDC | IC <sup>®</sup> PART NUMBER | Maximum ESR Ω<br>120Hz, +20°C | Maximum RMS Ripple Current (mA)<br>120Hz, +85°C | Dimensions DxL (mm) |
|------------------|------|-----------------------------|-------------------------------|---|---------------------|
| 680              | 16   | 687CKR016M                  | 0.390                         | 596   | 10x16               |
| 680              | 35   | 687CKR035M                  | 0.293                         | 770   | 12.5x20             |
| 680              | 50   | 687CKR050M                  | 0.244                         | 810   | 12.5x25             |
| 1000             | 6.3  | 108CKS6R3M                  | 0.398                         | 580   | 8x11.5              |
| 1000             | 10   | 108CKS010M                  | 0.332                         | 650   | 10x12.5             |
| 1000             | 16   | 108CKS016MLN                | 0.332                         | 700   | 10x12.5             |
| 1000             | 16   | 108CKS016M                  | 0.332                         | 785   | 10x16               |
| 1000             | 25   | 108CKS025MLQ                | 0.232                         | 860   | 10x16               |
| 1000             | 25   | 108CKS025M                  | 0.232                         | 955   | 10x20               |
| 1000             | 25   | 108CKR025M                  | 0.232                         | 1050  | 12.5x20             |
| 1000             | 35   | 108CKS035M                  | 0.199                         | 1130  | 12.5x20             |
| 1000             | 35   | 108CKR035M                  | 0.199                         | 1300  | 12.5x25             |
| 1000             | 50   | 108CKS050M                  | 0.166                         | 1340  | 12.5x25             |
| 1000             | 50   | 108CKR050M                  | 0.166                         | 1310  | 16x25               |
| 1000             | 63   | 108CKS063M                  | 0.166                         | 1310  | 16x25               |
| 1000             | 63   | 108CKR063M                  | 0.166                         | 1460  | 16x31.5             |
| 1000             | 100  | 108CKS100MRY                | 0.133                         | 1350  | 18x35.5             |
| 1000             | 100  | 108CKS100M                  | 0.133                         | 1930  | 18x40               |
| 1500             | 10   | 158CKS010M                  | 0.243                         | 897   | 10x16               |
| 1500             | 16   | 158CKS016M                  | 0.199                         | 1075  | 10x20               |
| 1500             | 25   | 158CKS025M                  | 0.177                         | 1340  | 12.5x20             |
| 1500             | 35   | 158CKS035M                  | 0.155                         | 1590  | 12.5x25             |
| 1500             | 35   | 158CKR035M                  | 0.155                         | 1110  | 16x25               |
| 1500             | 50   | 158CKS050M                  | 0.133                         | 1650  | 16x31.5             |
| 2200             | 6.3  | 228CKS6R3M                  | 0.211                         | 930   | 10x16               |
| 2200             | 10   | 228CKS010M                  | 0.181                         | 1140  | 10x20               |
| 2200             | 10   | 228CKS010MLQ                | 0.181                         | 990   | 10x16               |
| 2200             | 16   | 228CKS016MLU                | 0.151                         | 1000  | 10x21               |
| 2200             | 16   | 228CKS016M                  | 0.151                         | 1295  | 12.5x20             |
| 2200             | 25   | 228CKS025M                  | 0.136                         | 1510  | 12.5x25             |
| 2200             | 25   | 228CKR025M                  | 0.136                         | 1650  | 16x25               |
| 2200             | 35   | 228CKS035M                  | 0.121                         | 1785  | 16x25               |
| 2200             | 35   | 228CKR035M                  | 0.121                         | 1830  | 16x31.5             |
| 2200             | 50   | 228CKS050MQW                | 0.106                         | 1980  | 16x31.5             |
| 2200             | 50   | 228CKS050M                  | 0.106                         | 2075  | 16x35.5             |
| 2200             | 50   | 228CKR050M                  | 0.106                         | 2210  | 18x35.5             |
| 2200             | 63   | 228CKS063M                  | 0.106                         | 2300  | 18x35.5             |
| 3300             | 6.3  | 338CKS6R3M                  | 0.151                         | 1250  | 10x20               |
| 3300             | 6.3  | 338CKR6R3M                  | 0.151                         | 1380  | 12.5x20             |

| Capacitance (µF) | WVDC | IC <sup>®</sup> PART NUMBER | Maximum ESR Ω<br>120Hz, +20°C | Maximum RMS Ripple Current (mA)<br>120Hz, +85°C | Dimensions DxL (mm) |
|------------------|------|-----------------------------|-------------------------------|---|---------------------|
| 3300             | 10   | 338CKR010M                  | 0.131                         | 1560  | 12.5x25             |
| 3300             | 16   | 338CKS016M                  | 0.111                         | 1680  | 12.5x25             |
| 3300             | 16   | 338CKS016M                  | 0.111                         | 1830  | 16x25               |
| 3300             | 25   | 338CKS025M                  | 0.100                         | 1975  | 16x25               |
| 3300             | 35   | 338CKS035M                  | 0.0904                        | 2100  | 16x31.5             |
| 3300             | 35   | 338CKS035M                  | 0.0904                        | 1655  | 16x35.5             |
| 3300             | 35   | 338CKR035M                  | 0.090                         | 2330  | 18x35.5             |
| 3300             | 50   | 338CKS050M                  | 0.080                         | 2510  | 18x35.5             |
| 4700             | 6.3  | 478CKS6R3M                  | 0.113                         | 1545  | 12.5x20             |
| 4700             | 10   | 478CKS010M                  | 0.099                         | 1780  | 12.5x25             |
| 4700             | 10   | 478CKR010M                  | 0.099                         | 1770  | 16x25               |
| 4700             | 16   | 478CKS016M                  | 0.085                         | 2090  | 16x25               |
| 4700             | 25   | 478CKS025MQV                | 0.078                         | 2200  | 16x25               |
| 4700             | 25   | 478CKS025M                  | 0.078                         | 2420  | 16x31.5             |
| 4700             | 25   | 478CKR025M                  | 0.078                         | 2430  | 18x35.5             |
| 4700             | 35   | 478CKS035MQY                | 0.071                         | 2500  | 16x35.5             |
| 4700             | 35   | 478CKS035M                  | 0.071                         | 2700  | 18x35.5             |
| 6800             | 6.3  | 688CKS6R3M                  | 0.088                         | 1915  | 12.5x25             |
| 6800             | 10   | 688CKS010M                  | 0.078                         | 2220  | 16x25               |
| 6800             | 16   | 688CKS016MQY                | 0.068                         | 2250  | 16x25               |
| 6800             | 16   | 688CKS016M                  | 0.068                         | 2520  | 16x35.5             |
| 6800             | 16   | 688CKR016M                  | 0.068                         | 2580  | 18x35.5             |
| 6800             | 25   | 688CKS025M                  | 0.063                         | 2600  | 16x35.5             |
| 6800             | 25   | 688CKS025M                  | 0.063                         | 2880  | 18x35.5             |
| 6800             | 35   | 688CKS035M                  | 0.059                         | 2800  | 18x40               |
| 10000            | 6.3  | 109CKS6R3M                  | 0.066                         | 2330  | 16x25               |
| 10000            | 10   | 109CKS010MQW                | 0.063                         | 2550  | 16x31.5             |
| 10000            | 10   | 109CKS010M                  | 0.063                         | 2670  | 16x35.5             |
| 10000            | 16   | 109CKS016MQY                | 0.056                         | 2710  | 16x35.5             |
| 10000            | 16   | 109CKS016M                  | 0.056                         | 2920  | 18x35.5             |
| 10000            | 25   | 109CKS025M                  | 0.053                         | 2800  | 18x40               |
| 15000            | 6.3  | 159CKS6R3MQW                | 0.057                         | 2550  | 16x31.5             |
| 15000            | 6.3  | 159CKS6R3M                  | 0.057                         | 2845  | 16x35.5             |
| 15000            | 10   | 159CKS010MQY                | 0.053                         | 2880  | 16x35.5             |
| 15000            | 10   | 159CKS010M                  | 0.053                         | 3080  | 18x35.5             |
| 15000            | 16   | 159CKS016M                  | 0.053                         | 3100  | 18x40               |
| 22000            | 6.3  | 229CKS6R3MRY                | 0.050                         | 3200  | 18x35.5             |
| 22000            | 10   | 229CKS010M                  | 0.048                         | 3400  | 18x40               |



NOTE: Case Vent is standard on all diameter ≥8.0mm

LEAD INFORMATION V.S. CASE DIAMETER

| D | 5.0 | 6.3 | 8.0 | 10.0 | 12.5 | 16.0 | 18.0 |
|---|-----|-----|-----|------|------|------|------|
| S | 2.0 | 2.5 | 3.5 | 5.0  | 5.0  | 7.5  | 7.5  |
| d | 0.5 | 0.5 | 0.6 | 0.6  | 0.6  | 0.8  | 0.8  |
| B | 0.5 | 0.5 | 0.5 | 0.5  | 0.8  | 0.5  | 0.5  |

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

D<sub>1</sub>=D+B Max.

S<sub>1</sub>=S±0.5 mm