# 673D/674D Series

UNITED CHEMI-CON

673D/674D
SMALL CAN -105°C

- **Small Can**
- **Radial Tubular**
- **−55°C to +105°C Extended Temperature Range**
- **Military MIL-C-39018/09 Commercial Equivalent**

The 673D and 674D are ideal for SMPS output filter applications since they feature a low ESR, inductance and impedance at high frequencies. This military MIL-C-39018/09 commercial equivalent series is designed to meet the toughest environmental operating conditions in temperatures from −55°C to +105°C. The various terminal options allow for mounting flexibility.

The 673D and 674D series capacitors are available with a standard PVC sleeve and, upon request, an optional solvent proof epoxy end-seal required for exposure to halogenated cleaning solvents. Refer to the Mini-Glossary for recommended cleaning conditions.

## Summary of Specifications

- **2 and 3 radial lead configurations, and optional 3rd lead axial mount.**
- **Capacitance range: 27 to 27,000μF.**
- **Voltage range: 6.3 to 250VDC.**
- **Operating temperature range: −55°C to +105°C.**
- **Leakage current in μA: $I = K\sqrt{CV}$ : K = 0.5 at +25°C after 5 minutes.**
- **Standard capacitance tolerance: −10% to +50%**
- **Nominal case size (D × L): 0.750" × 1.125" to 1.000" × 3.625"**
- **Rated lifetime: 2,000 hours at +105°C.**

## 673D/674D Specifications

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<tr><td>61-250V</td><td>0.43</td><td>0.54</td><td>0.75</td><td>0.85</td><td>1.00</td></tr>
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<tr><td>Life Validation Test</td><td>The following specifications shall be satisfied when the capacitors are restored to +25°C after subjecting them to the DC rated voltage for 2,000 hours at +105°C.<br>Capacitance change: ≤ 15% from initial measurement<br>ESR change : ≤ 1.5 x initial specified limit<br>Leakage current : ≤ initial specified limit</td></tr>
<tr><td>Shelf Test</td><td>The following specifications shall be satisfied when the capacitors are restored to +25°C after exposing them for 500 hours at +105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.<br>Capacitance change: ≤ 10% from initial measurement<br>ESR change : ≤ 1.15 x initial specified limit<br>Leakage current : ≤ 2 x initial specified limit</td></tr>
</table>

## Part Numbering System for 673D/674D Series

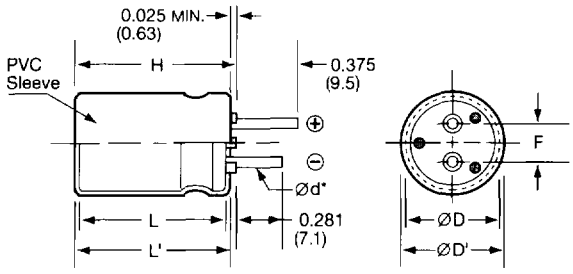
Always specify complete catalog number for 673D/674D Series.

**673D 107 F 250 GP 1 C**

- **673D** — Series Name: Indicates Basic Capacitor Design.
  673D = Lead Codes C and J only.
  674D = Lead Code A only.
- **107** — Capacitance Value: Expressed in Picofarads. The first two digits are significant figures, the third digit indicates the number of zeros.
- **F** — Capacitance Tolerance: F = −10% to +50%
- **250** — DC Rated Voltage: Expressed in Volts. Zero proceeds the voltage rating when less than 100 volts. An R indicates a decimal point (e.g. 6R3 = 6.3V).
- **GP** — Case Code: See Dimensions in Ratings Tables.
- **1** — Case Style: 1 = PVC Sleeve (Standard).
- **C** — Lead Code: C = 2 Lead Radial Mount (673D).
  J = 3rd Lead Axial Mount (Optional on 673D).
  A = Keyed Polarity 3rd Lead Radial Mount (674D).

## Diagram of Dimensions

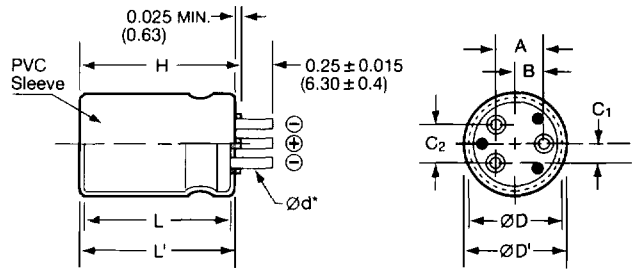
### C/Radial Lead (673D)




*Solid Tinned Leads No.18 AWG

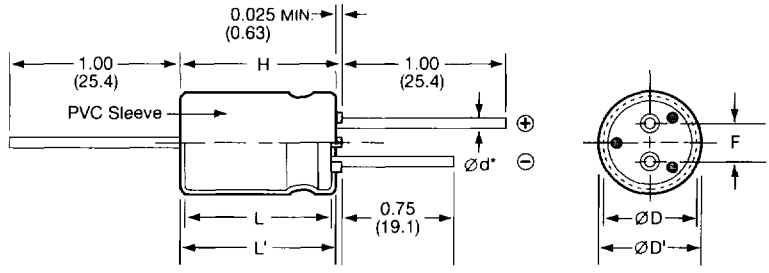
### A/3rd Lead Radial (674D)

Unit: inches (mm)




*Solid Tinned Leads No.18 AWG

### J/3rd Lead Axial (Optional on 673D)




*Solid Tinned Leads No.18 AWG

### Dimensions in Inches

| Case Code | ØD' ±0.015 With Sleeve | L' ±0.062 With Sleeve | H Max. Overall Length | Ød Terminal Diameter | Typical Weight (ounces) |
|---|---|---|---|---|---|
| GE | 0.770 | 1.150 | 1.246 | 0.040 | 0.46 |
| GJ | | 1.650 | 1.746 | | 0.64 |
| GL | | 2.150 | 2.246 | | 0.81 |
| GP | | 2.650 | 2.746 | | 0.99 |
| GS | | 3.150 | 3.246 | | 1.16 |
| GT | | 3.650 | 3.746 | | 1.34 |
| HE | 0.895 | 1.150 | 1.246 | 0.040 | 0.63 |
| HJ | | 1.650 | 1.746 | | 0.88 |
| HL | | 2.150 | 2.246 | | 1.09 |
| HP | | 2.650 | 2.746 | | 1.34 |
| HS | | 3.150 | 3.246 | | 1.59 |
| HT | | 3.650 | 3.746 | | 1.83 |
| JE | 1.020 | 1.150 | 1.246 | 0.040 | 0.81 |
| JJ | | 1.650 | 1.746 | | 1.13 |
| JL | | 2.150 | 2.246 | | 1.45 |
| JP | | 2.650 | 2.746 | | 1.76 |
| JS | | 3.150 | 3.246 | | 2.08 |
| JT | | 3.650 | 3.746 | | 2.40 |

### Dimensions in Millimeters

| Case Code | ØD' ±0.381 With Sleeve | L' ±1.575 With Sleeve | H Max. Overall Length | Ød Terminal Diameter | Typical Weight (grams) |
|---|---|---|---|---|---|
| GE | 19.6 | 29.2 | 31.6 | 1.016 | 13 |
| GJ | | 41.9 | 44.3 | | 18 |
| GL | | 54.6 | 57.0 | | 23 |
| GP | | 67.3 | 69.7 | | 28 |
| GS | | 80.0 | 82.4 | | 33 |
| GT | | 92.7 | 95.1 | | 38 |
| HE | 22.7 | 29.2 | 31.6 | 1.016 | 18 |
| HJ | | 41.9 | 44.3 | | 25 |
| HL | | 54.6 | 57.0 | | 31 |
| HP | | 67.3 | 69.7 | | 38 |
| HS | | 80.0 | 82.4 | | 45 |
| HT | | 92.7 | 95.1 | | 52 |
| JE | 25.9 | 29.2 | 31.6 | 1.016 | 23 |
| JJ | | 41.9 | 44.3 | | 32 |
| JL | | 54.6 | 57.0 | | 41 |
| JP | | 67.3 | 69.7 | | 50 |
| JS | | 80.0 | 82.4 | | 59 |
| JT | | 92.7 | 95.1 | | 68 |

### Lead Spacing in Inches

| ØD Diameter | A ±0.015 | B ±0.015 | C1 ±0.015 | C2 ±0.015 | F ±0.015 |
|---|---|---|---|---|---|
| 0.075 | 0.300 | 0.167 | 0.100 | 0.200 | 0.250 |
| 0.875 | 0.400 | 0.228 | 0.150 | 0.300 | 0.300 |
| 1.000 | 0.400 | 0.228 | 0.150 | 0.300 | 0.400 |

### Lead Spacing in Millimeters

| ØD Diameter | A ±0.381 | B ±0.381 | C1 ±0.381 | C2 ±0.381 | F ±0.381 |
|---|---|---|---|---|---|
| 19.1 | 7.6 | 4.2 | 2.5 | 5.1 | 6.4 |
| 22.2 | 10.2 | 5.8 | 3.8 | 7.6 | 7.6 |
| 25.4 | 10.2 | 5.8 | 3.8 | 7.6 | 10.2 |

# 673D/674D Series

## Standard Voltage Ratings - Tubular Radial Lead

| Rated Voltage (WVDC) | Capacitance (µF) | Catalog Part Number | Nominal Case Size* D × L (inches) | Maximum ESR (mΩ) at +25°C 120Hz | Maximum ESR (mΩ) at +25°C 20k-40kHz | Maximum Impedance (mΩ) at +25°C, 100kHz | Maximum Ripple Current (Arms) at +85°C 20k-40kHz |
|---|---|---|---|---|---|---|---|
| **6.3 Volts** 9 Volts Surge | 2,200 | 673D228F6R3GE1C | 0.770 × 1.150 | 105.0 | 81.0 | 83.0 | 2.30 |
| | 4,700 | 673D478F6R3GJ1C | 0.770 × 1.650 | 53.0 | 41.0 | 43.0 | 3.70 |
| | 6,800 | 673D688F6R3GL1C | 0.770 × 2.150 | 36.0 | 28.0 | 30.0 | 4.95 |
| | 8,200 | 673D828F6R3GP1C | 0.770 × 2.650 | 28.0 | 22.7 | 25.0 | 6.11 |
| | 10,000 | 673D109F6R3GS1C | 0.770 × 3.150 | 23.0 | 19.0 | 21.0 | 7.20 |
| | 12,000 | 673D129F6R3GT1C | 0.770 × 3.650 | 21.0 | 17.0 | 19.0 | 8.14 |
| | 3,300 | 673D338F6R3HE1C | 0.895 × 1.150 | 74.0 | 58.0 | 60.0 | 3.00 |
| | 6,800 | 673D688F6R3HJ1C | 0.895 × 1.650 | 38.0 | 39.0 | 41.0 | 4.73 |
| | 10,000 | 673D109F6R3HL1C | 0.895 × 2.150 | 27.0 | 22.0 | 24.0 | 6.20 |
| | 15,000 | 673D159F6R3HP1C | 0.895 × 2.650 | 21.0 | 17.4 | 19.0 | 7.62 |
| | 18,000 | 673D189F6R3HS1C | 0.895 × 3.150 | 18.0 | 15.0 | 17.0 | 8.83 |
| | 22,000 | 673D229F6R3HT1C | 0.895 × 3.650 | 15.8 | 13.3 | 15.0 | 10.10 |
| | 4,700 | 673D478F6R3JE1C | 1.020 × 1.150 | 60.0 | 48.0 | 50.0 | 3.60 |
| | 10,000 | 673D109F6R3JJ1C | 1.020 × 1.650 | 32.0 | 26.0 | 28.0 | 5.54 |
| | 15,000 | 673D159F6R3JL1C | 1.020 × 2.150 | 22.6 | 18.8 | 21.0 | 7.30 |
| | 18,000 | 673D189F6R3JP1C | 1.020 × 2.650 | 18.0 | 15.2 | 17.0 | 8.81 |
| | 22,000 | 673D229F6R3JS1C | 1.020 × 3.150 | 15.4 | 13.0 | 14.0 | 10.20 |
| | 27,000 | 673D279F6R3JT1C | 1.020 × 3.650 | 13.4 | 11.5 | 13.0 | 11.60 |
| **10 Volts** 12 Volts Surge | 1,800 | 673D188F010GE1C | 0.770 × 1.150 | 123.0 | 89.0 | 91.0 | 2.20 |
| | 3,300 | 673D338F010GJ1C | 0.770 × 1.650 | 60.0 | 44.0 | 46.0 | 3.56 |
| | 5,600 | 673D568F010GL1C | 0.770 × 2.150 | 41.0 | 30.0 | 32.0 | 4.79 |
| | 6,800 | 673D688F010GP1C | 0.770 × 2.650 | 31.0 | 24.0 | 26.0 | 5.93 |
| | 8,200 | 673D828F010GS1C | 0.770 × 3.150 | 26.0 | 20.0 | 22.0 | 7.02 |
| | 10,000 | 673D109F010GT1C | 0.770 × 3.650 | 23.0 | 17.8 | 20.0 | 7.97 |
| | 2,700 | 673D278F010HE1C | 0.895 × 1.150 | 82.0 | 61.0 | 62.0 | 2.90 |
| | 5,600 | 673D568F010HJ1C | 0.895 × 1.650 | 42.0 | 32.0 | 34.0 | 4.61 |
| | 8,200 | 673D828F010HL1C | 0.895 × 2.150 | 29.6 | 22.0 | 24.0 | 6.11 |
| | 10,000 | 673D109F010HP1C | 0.895 × 2.650 | 24.0 | 18.0 | 20.0 | 7.33 |
| | 12,000 | 673D129F010HS1C | 0.895 × 3.150 | 19.9 | 15.8 | 17.0 | 8.63 |
| | 15,000 | 673D159F010HT1C | 0.895 × 3.650 | 17.3 | 13.8 | 16.0 | 9.85 |
| | 3,900 | 673D398F010JE1C | 1.020 × 1.150 | 66.6 | 50.0 | 52.0 | 3.47 |
| | 6,800 | 673D688F010JJ1C | 1.020 × 1.650 | 34.0 | 26.7 | 29.0 | 5.48 |
| | 12,000 | 673D129F010JL1C | 1.020 × 2.150 | 24.0 | 19.0 | 21.0 | 7.18 |
| | 15,000 | 673D159F010JP1C | 1.020 × 2.650 | 19.2 | 15.0 | 17.0 | 8.72 |
| | 18,000 | 673D189F010JS1C | 1.020 × 3.150 | 16.0 | 13.0 | 15.0 | 10.20 |
| | 22,000 | 673D229F010JT1C | 1.020 × 3.650 | 14.3 | 11.8 | 14.0 | 11.50 |
| **16 Volts** 20 Volts Surge | 1,200 | 673D128F016GE1C | 0.770 × 1.150 | 129.0 | 83.0 | 85.0 | 2.24 |
| | 2,700 | 673D278F016GJ1C | 0.770 × 1.650 | 65.0 | 43.0 | 45.0 | 3.62 |
| | 3,900 | 673D398F016GL1C | 0.770 × 2.150 | 44.0 | 30.0 | 32.0 | 4.84 |
| | 5,600 | 673D568F016GP1C | 0.770 × 2.650 | 34.0 | 23.5 | 26.0 | 6.01 |
| | 6,800 | 673D688F016GS1C | 0.770 × 3.150 | 28.0 | 19.7 | 23.0 | 7.09 |
| | 8,200 | 673D828F016GT1C | 0.770 × 3.650 | 24.0 | 17.0 | 21.0 | 8.16 |
| | 2,200 | 673D228F016HE1C | 0.895 × 1.150 | 89.0 | 59.0 | 61.0 | 2.93 |
| | 3,900 | 673D398F016HJ1C | 0.895 × 1.650 | 45.0 | 31.6 | 34.0 | 4.64 |
| | 5,600 | 673D568F016HL1C | 0.895 × 2.150 | 31.6 | 22.4 | 25.0 | 6.14 |
| | 8,200 | 673D828F016HP1C | 0.895 × 2.650 | 24.7 | 17.9 | 20.0 | 7.51 |
| | 10,000 | 673D109F016HS1C | 0.895 × 3.150 | 20.7 | 15.2 | 18.0 | 8.79 |
| | 12,000 | 673D129F016HT1C | 0.895 × 3.650 | 18.0 | 13.6 | 17.0 | 9.93 |
| | 2,700 | 673D278F016JE1C | 1.020 × 1.150 | 71.0 | 50.0 | 52.0 | 3.49 |
| | 5,600 | 673D568F016JJ1C | 1.020 × 1.650 | 36.7 | 26.7 | 29.0 | 5.48 |
| | 8,200 | 673D828F016JL1C | 1.020 × 2.150 | 26.0 | 19.2 | 22.0 | 7.18 |
| | 12,000 | 673D129F016JP1C | 1.020 × 2.650 | 20.5 | 15.4 | 19.0 | 8.75 |
| | 15,000 | 673D159F016JS1C | 1.020 × 3.150 | 17.4 | 13.3 | 17.0 | 10.20 |
| | 18,000 | 673D189F016JT1C | 1.020 × 3.650 | 15.3 | 11.8 | 17.0 | 11.50 |

***The case sizes in table are with sleeve.**

# 673D/674D Series

## Standard Voltage Ratings - Tubular Radial Lead

| Rated Voltage (WVDC) | Capacitance (µF) | Catalog Part Number | Nominal Case Size* D×L (inches) | Maximum ESR (mΩ) at +25°C 120Hz | Maximum ESR (mΩ) at +25°C 20k-40kHz | Maximum Impedance (mΩ) at +25°C, 100kHz | Maximum Ripple Current (Arms) at +85°C 20k-40kHz |
|---|---|---|---|---|---|---|---|
| **25 Volts** 35 Volts Surge | 820 | 673D827F025GE1C | 0.770 × 1.150 | 143.0 | 85.0 | 88.0 | 2.23 |
| | 1,500 | 673D158F025GJ1C | 0.770 × 1.650 | 73.0 | 44.0 | 47.0 | 3.56 |
| | 2,200 | 673D228F025GL1C | 0.770 × 2.150 | 49.0 | 30.5 | 33.0 | 4.82 |
| | 3,300 | 673D338F025GP1C | 0.770 × 2.650 | 37.0 | 23.9 | 27.0 | 5.96 |
| | 3,900 | 673D398F025GS1C | 0.770 × 3.150 | 31.0 | 20.0 | 23.0 | 7.00 |
| | 4,700 | 673D478F025GT1C | 0.770 × 3.650 | 26.7 | 17.5 | 21.0 | 8.04 |
| | 1,200 | 673D128F025HE1C | 0.895 × 1.150 | 101.0 | 62.9 | 66.0 | 2.86 |
| | 2,700 | 673D278F025HJ1C | 0.895 × 1.650 | 50.0 | 32.0 | 35.0 | 4.61 |
| | 3,900 | 673D398F025HL1C | 0.895 × 2.150 | 35.0 | 22.9 | 26.0 | 6.08 |
| | 4,700 | 673D478F025HP1C | 0.895 × 2.650 | 27.0 | 18.0 | 21.0 | 7.47 |
| | 6,800 | 673D688F025HS1C | 0.895 × 3.150 | 22.7 | 15.4 | 19.0 | 8.74 |
| | 8,200 | 673D828F025HT1C | 0.895 × 3.650 | 19.6 | 13.6 | 17.0 | 9.93 |
| | 1,800 | 673D188F025JE1C | 1.020 × 1.150 | 79.0 | 51.0 | 53.0 | 3.45 |
| | 3,900 | 673D398F025JJ1C | 1.020 × 1.650 | 40.0 | 26.9 | 30.0 | 5.46 |
| | 5,600 | 673D568F025JL1C | 1.020 × 2.150 | 28.0 | 19.0 | 22.0 | 7.14 |
| | 6,800 | 673D688F025JP1C | 1.020 × 2.650 | 22.0 | 15.7 | 19.0 | 8.66 |
| | 8,200 | 673D828F025JS1C | 1.020 × 3.150 | 18.7 | 13.5 | 17.0 | 10.10 |
| | 10,000 | 673D109F025JT1C | 1.020 × 3.650 | 16.4 | 12.0 | 15.0 | 11.40 |
| **35 Volts** 45 Volts Surge | 560 | 673D567F035GE1C | 0.770 × 1.150 | 191.0 | 86.0 | 89.0 | 2.22 |
| | 1,000 | 673D108F035GJ1C | 0.770 × 1.650 | 94.0 | 47.0 | 67.0 | 3.57 |
| | 1,500 | 673D158F035GL1C | 0.770 × 2.150 | 64.0 | 32.0 | 30.0 | 4.80 |
| | 1,800 | 673D188F035GP1C | 0.770 × 2.650 | 49.0 | 25.0 | 27.0 | 5.92 |
| | 2,200 | 673D228F035GS1C | 0.770 × 3.150 | 40.0 | 21.0 | 30.0 | 7.00 |
| | 2,700 | 673D278F035GT1C | 0.770 × 3.650 | 34.8 | 18.6 | 21.0 | 8.02 |
| | 680 | 673D687F035HE1C | 0.895 × 1.150 | 130.0 | 64.0 | 62.0 | 3.00 |
| | 1,500 | 673D158F035HJ1C | 0.895 × 1.650 | 67.0 | 33.0 | 36.0 | 4.54 |
| | 2,200 | 673D228F035HL1C | 0.895 × 2.150 | 45.0 | 23.0 | 26.0 | 6.05 |
| | 3,300 | 673D338F035HP1C | 0.895 × 2.650 | 34.0 | 18.4 | 22.0 | 7.41 |
| | 3,900 | 673D398F035HS1C | 0.895 × 3.150 | 29.0 | 16.8 | 19.0 | 8.63 |
| | 4,700 | 673D478F035HT1C | 0.895 × 3.650 | 25.8 | 14.8 | 17.0 | 9.85 |
| | 1,000 | 673D108F035JE1C | 1.020 × 1.150 | 105.0 | 53.0 | 55.0 | 3.41 |
| | 2,200 | 673D228F035JJ1C | 1.020 × 1.650 | 51.7 | 28.0 | 30.0 | 5.42 |
| | 2,700 | 673D278F035JL1C | 1.020 × 2.150 | 36.0 | 20.0 | 23.0 | 7.49 |
| | 3,900 | 673D398F035JP1C | 1.020 × 2.650 | 28.7 | 16.0 | 19.0 | 8.90 |
| | 4,700 | 673D478F035JS1C | 1.020 × 3.150 | 23.8 | 13.0 | 17.0 | 10.60 |
| | 5,600 | 673D568F035JT1C | 1.020 × 3.650 | 20.3 | 12.0 | 16.0 | 11.40 |
| **50 Volts** 75 Volts Surge | 390 | 673D397F050GE1C | 0.770 × 1.150 | 212.0 | 86.0 | 89.0 | 2.21 |
| | 820 | 673D827F050GJ1C | 0.770 × 1.650 | 105.0 | 44.0 | 47.0 | 3.57 |
| | 1,200 | 673D128F050GL1C | 0.770 × 2.150 | 74.0 | 32.0 | 35.0 | 4.70 |
| | 1,500 | 673D158F050GP1C | 0.770 × 2.650 | 56.0 | 25.0 | 28.0 | 5.83 |
| | 1,800 | 673D188F050GS1C | 0.770 × 3.150 | 44.0 | 20.0 | 23.0 | 7.00 |
| | 2,200 | 673D228F050GT1C | 0.770 × 3.650 | 37.7 | 17.7 | 21.0 | 8.00 |
| | 560 | 673D567F050HE1C | 0.895 × 1.150 | 145.0 | 59.0 | 62.0 | 2.87 |
| | 1,200 | 673D128F050HJ1C | 0.895 × 1.650 | 76.0 | 34.0 | 37.0 | 4.46 |
| | 1,800 | 673D188F050HL1C | 0.895 × 2.150 | 50.0 | 23.3 | 26.0 | 6.02 |
| | 2,200 | 673D228F050HP1C | 0.895 × 2.650 | 39.0 | 18.7 | 22.0 | 7.35 |
| | 2,700 | 673D278F050HS1C | 0.895 × 3.150 | 31.4 | 15.7 | 19.0 | 8.65 |
| | 3,300 | 673D338F050HT1C | 0.895 × 3.650 | 27.0 | 13.9 | 17.0 | 9.82 |
| | 820 | 673D827F050JE1C | 1.020 × 1.150 | 112.0 | 51.4 | 54.0 | 3.45 |
| | 1,500 | 673D158F050JJ1C | 1.020 × 1.650 | 58.0 | 27.8 | 31.0 | 5.37 |
| | 2,200 | 673D228F050JL1C | 1.020 × 2.150 | 39.0 | 19.7 | 23.0 | 7.09 |
| | 3,300 | 673D338F050JP1C | 1.020 × 2.650 | 30.0 | 15.9 | 20.0 | 8.61 |
| | 3,900 | 673D398F050JS1C | 1.020 × 3.150 | 25.0 | 13.6 | 18.0 | 10.10 |
| | 4,700 | 673D478F050JT1C | 1.020 × 3.650 | 21.6 | 12.0 | 16.0 | 11.40 |

*The case sizes in table are with sleeve.

## Standard Voltage Ratings - Tubular Radial Lead

| Rated Voltage (WVDC) | Capacitance (µF) | Catalog Part Number | Nominal Case Size* D × L (inches) | Maximum ESR (mΩ) at +25°C 120Hz | Maximum ESR (mΩ) at +25°C 20k-40kHz | Maximum Impedance (mΩ) at +25°C, 100kHz | Maximum Ripple Current (Arms) at +85°C 20k-40kHz |
|---|---|---|---|---|---|---|---|
| **63 Volts** 85 Volts Surge | 330 | 673D337F063GE1C | 0.770 × 1.150 | 236.0 | 89.0 | 93.0 | 2.13 |
| | 680 | 673D687F063GJ1C | 0.770 × 1.650 | 117.0 | 47.0 | 50.0 | 3.44 |
| | 1,000 | 673D108F063GL1C | 0.770 × 2.150 | 79.0 | 33.3 | 36.0 | 4.61 |
| | 1,200 | 673D128F063GP1C | 0.770 × 2.650 | 63.0 | 27.0 | 30.0 | 5.61 |
| | 1,800 | 673D188F063GS1C | 0.770 × 3.150 | 49.9 | 22.0 | 25.0 | 6.71 |
| | 2,200 | 673D228F063GT1C | 0.770 × 3.650 | 41.7 | 18.9 | 22.0 | 7.74 |
| | 560 | 673D567F063HE1C | 0.895 × 1.150 | 159.0 | 66.0 | 69.0 | 2.79 |
| | 1,000 | 673D108F063HJ1C | 0.895 × 1.650 | 82.0 | 35.4 | 38.0 | 4.38 |
| | 1,500 | 673D158F063HL1C | 0.895 × 2.150 | 54.0 | 24.5 | 28.0 | 5.87 |
| | 2,200 | 673D228F063HP1C | 0.895 × 2.650 | 41.0 | 19.3 | 22.0 | 7.24 |
| | 2,700 | 673D278F063HS1C | 0.895 × 3.150 | 34.6 | 16.6 | 20.0 | 8.42 |
| | 3,300 | 673D338F063HT1C | 0.895 × 3.650 | 29.0 | 14.5 | 18.0 | 9.61 |
| | 680 | 673D687F063JE1C | 1.020 × 1.150 | 122.0 | 51.0 | 54.0 | 3.70 |
| | 1,500 | 673D158F063JJ1C | 1.020 × 1.650 | 63.0 | 28.0 | 31.0 | 5.54 |
| | 2,200 | 673D228F063JL1C | 1.020 × 2.150 | 42.0 | 20.6 | 24.0 | 6.93 |
| | 2,700 | 673D278F063JP1C | 1.020 × 2.650 | 32.9 | 16.5 | 20.0 | 8.45 |
| | 3,900 | 673D398F063JS1C | 1.020 × 3.150 | 27.0 | 14.0 | 18.0 | 9.85 |
| | 4,700 | 673D478F063JT1C | 1.020 × 3.650 | 23.3 | 12.4 | 16.0 | 11.20 |
| **100 Volts** 125 Volts Surge | 150 | 673D157F100GE1C | 0.770 × 1.150 | 698.0 | 324.0 | 326.0 | 1.14 |
| | 270 | 673D277F100GJ1C | 0.770 × 1.650 | 329.0 | 154.0 | 156.0 | 1.92 |
| | 390 | 673D397F100GL1C | 0.770 × 2.150 | 221.0 | 104.0 | 106.0 | 2.60 |
| | 560 | 673D567F100GP1C | 0.770 × 2.650 | 164.0 | 78.0 | 80.0 | 3.39 |
| | 680 | 673D687F100GS1C | 0.770 × 3.150 | 131.0 | 63.0 | 65.0 | 3.96 |
| | 820 | 673D827F100GT1C | 0.770 × 3.650 | 110.0 | 53.0 | 54.0 | 4.60 |
| | 220 | 673D227F100HE1C | 0.895 × 1.150 | 452.0 | 212.0 | 215.0 | 1.55 |
| | 390 | 673D397F100HJ1C | 0.895 × 1.650 | 216.0 | 103.0 | 106.0 | 2.57 |
| | 680 | 673D687F100HL1C | 0.895 × 2.150 | 143.0 | 69.0 | 71.0 | 3.49 |
| | 820 | 673D827F100HP1C | 0.895 × 2.650 | 107.0 | 52.0 | 53.0 | 4.37 |
| | 1,000 | 673D108F100HS1C | 0.895 × 3.150 | 89.0 | 44.0 | 45.0 | 5.15 |
| | 1,200 | 673D128F100HT1C | 0.895 × 3.650 | 76.0 | 38.0 | 39.0 | 5.93 |
| | 270 | 673D277F100JE1C | 1.020 × 1.150 | 337.0 | 162.0 | 163.0 | 1.95 |
| | 560 | 673D567F100JJ1C | 1.020 × 1.650 | 163.0 | 79.0 | 81.0 | 3.17 |
| | 820 | 673D827F100JL1C | 1.020 × 2.150 | 109.0 | 54.0 | 55.0 | 4.27 |
| | 1,200 | 673D128F100JP1C | 1.020 × 2.650 | 83.0 | 42.0 | 43.0 | 5.28 |
| | 1,500 | 673D158F100JS1C | 1.020 × 3.150 | 67.0 | 34.0 | 35.0 | 6.29 |
| | 1,800 | 673D188F100JT1C | 1.020 × 3.650 | 57.0 | 29.5 | 31.0 | 7.26 |
| **160 Volts** 200 Volts Surge | 56 | 673D566F160GE1C | 0.770 × 1.150 | 1,733.0 | 881.0 | 895.0 | 0.69 |
| | 100 | 673D107F160GJ1C | 0.770 × 1.650 | 886.0 | 450.0 | 460.0 | 1.12 |
| | 180 | 673D187F160GL1C | 0.770 × 2.150 | 569.0 | 290.0 | 297.0 | 1.56 |
| | 220 | 673D227F160GP1C | 0.770 × 2.650 | 419.0 | 215.0 | 220.0 | 1.99 |
| | 330 | 673D337F160GS1C | 0.770 × 3.150 | 333.0 | 170.0 | 175.0 | 2.41 |
| | 390 | 673D397F160GT1C | 0.770 × 3.650 | 276.0 | 141.0 | 148.0 | 2.83 |
| | 82 | 673D826F160HE1C | 0.895 × 1.150 | 1,152.0 | 588.0 | 592.0 | 0.93 |
| | 180 | 673D187F160HJ1C | 0.895 × 1.650 | 579.0 | 296.0 | 300.0 | 1.51 |
| | 270 | 673D277F160HL1C | 0.895 × 2.150 | 376.0 | 193.0 | 198.0 | 2.09 |
| | 390 | 673D397F160HP1C | 0.895 × 2.650 | 279.0 | 143.0 | 148.0 | 2.66 |
| | 470 | 673D477F160HS1C | 0.895 × 3.150 | 222.0 | 115.0 | 120.0 | 3.19 |
| | 560 | 673D567F160HT1C | 0.895 × 3.650 | 185.0 | 96.0 | 100.0 | 3.74 |
| | 120 | 673D127F160JE1C | 1.020 × 1.150 | 852.0 | 438.0 | 445.0 | 1.18 |
| | 270 | 673D277F160JJ1C | 1.020 × 1.650 | 415.0 | 214.0 | 220.0 | 1.94 |
| | 390 | 673D397F160JL1C | 1.020 × 2.150 | 275.0 | 142.0 | 148.0 | 2.64 |
| | 470 | 673D477F160JP1C | 1.020 × 2.650 | 202.0 | 105.0 | 108.0 | 3.35 |
| | 560 | 673D567F160JS1C | 1.020 × 3.150 | 163.0 | 84.0 | 88.0 | 4.03 |
| | 680 | 673D687F160JT1C | 1.020 × 3.650 | 137.0 | 71.0 | 74.0 | 4.69 |

***The case sizes in table are with sleeve.**

## Standard Voltage Ratings - Tubular Radial Lead

| Rated Voltage (WVDC) | Capacitance (µF) | Catalog Part Number | Nominal Case Size* D×L (inches) | Maximum ESR (mΩ) at +25°C 120Hz | Maximum ESR (mΩ) at +25°C 20k-40kHz | Maximum Impedance (mΩ) at +25°C, 100kHz | Maximum Ripple Current (Arms) at +85°C 20k-40kHz |
|---|---|---|---|---|---|---|---|
| **200 Volts** 250 Volts Surge | 39 | 673D396F200GE1C | 0.770 × 1.150 | 2,290.0 | 1,000.0 | 1,040.0 | 0.65 |
| | 82 | 673D826F200GJ1C | 0.770 × 1.650 | 1,110.0 | 484.0 | 490.0 | 1.08 |
| | 100 | 673D107F200GL1C | 0.770 × 2.150 | 762.0 | 337.0 | 341.0 | 1.45 |
| | 150 | 673D157F200GP1C | 0.770 × 2.650 | 557.0 | 246.0 | 250.0 | 1.86 |
| | 180 | 673D187F200GS1C | 0.770 × 3.150 | 439.0 | 195.0 | 200.0 | 2.25 |
| | 220 | 673D227F200GT1C | 0.770 × 3.650 | 363.0 | 161.0 | 168.0 | 2.65 |
| | 56 | 673D566F200HE1C | 0.895 × 1.150 | 1,510.0 | 670.0 | 680.0 | 0.87 |
| | 100 | 673D107F200HJ1C | 0.895 × 1.650 | 775.0 | 343.0 | 348.0 | 1.41 |
| | 180 | 673D187F200HL1C | 0.895 × 2.150 | 498.0 | 221.0 | 230.0 | 1.96 |
| | 220 | 673D227F200HP1C | 0.895 × 2.650 | 367.0 | 163.0 | 168.0 | 2.49 |
| | 270 | 673D277F200HS1C | 0.895 × 3.150 | 291.0 | 130.0 | 135.0 | 3.01 |
| | 330 | 673D337F200HT1C | 0.895 × 3.650 | 242.0 | 108.0 | 112.0 | 3.53 |
| | 82 | 673D826F200JE1C | 1.020 × 1.150 | 1,090.0 | 486.0 | 492.0 | 1.13 |
| | 150 | 673D157F200JJ1C | 1.020 × 1.650 | 528.0 | 240.0 | 246.0 | 1.83 |
| | 220 | 673D227F200JL1C | 1.020 × 2.150 | 356.0 | 160.0 | 168.0 | 2.49 |
| | 330 | 673D337F200JP1C | 1.020 × 2.650 | 267.0 | 120.0 | 124.0 | 3.13 |
| | 390 | 673D397F200JS1C | 1.020 × 3.150 | 214.0 | 97.0 | 101.0 | 3.76 |
| | 470 | 673D477F200JT1C | 1.020 × 3.650 | 179.0 | 80.0 | 84.0 | 4.42 |
| **250 Volts** 300 Volts Surge | 27 | 673D276F250GE1C | 0.770 × 1.150 | 2,400.0 | 700.0 | 710.0 | 0.77 |
| | 56 | 673D566F250GJ1C | 0.770 × 1.650 | 1,147.0 | 338.0 | 348.0 | 1.29 |
| | 82 | 673D826F250GL1C | 0.770 × 2.150 | 754.0 | 232.0 | 240.0 | 1.77 |
| | 100 | 673D107F250GP1C | 0.770 × 2.650 | 587.0 | 178.0 | 186.0 | 2.19 |
| | 150 | 673D157F250GS1C | 0.770 × 3.150 | 461.0 | 137.0 | 143.0 | 2.67 |
| | 180 | 673D187F250GT1C | 0.770 × 3.650 | 379.0 | 117.0 | 122.0 | 3.13 |
| | 39 | 673D396F250HE1C | 0.895 × 1.150 | 1,579.0 | 467.0 | 476.0 | 1.05 |
| | 82 | 673D826F250HJ1C | 0.895 × 1.650 | 766.0 | 237.0 | 246.0 | 1.72 |
| | 120 | 673D127F250HL1C | 0.895 × 2.150 | 503.0 | 158.0 | 166.0 | 2.35 |
| | 180 | 673D187F250HP1C | 0.895 × 2.650 | 383.0 | 119.0 | 125.0 | 2.94 |
| | 220 | 673D227F250HS1C | 0.895 × 3.150 | 310.0 | 92.0 | 97.0 | 3.51 |
| | 270 | 673D277F250HT1C | 0.895 × 3.650 | 251.0 | 78.0 | 83.0 | 4.15 |
| | 56 | 673D566F250JE1C | 1.020 × 1.150 | 1,140.0 | 345.0 | 354.0 | 1.33 |
| | 120 | 673D127F250JJ1C | 1.020 × 1.650 | 554.0 | 243.0 | 252.0 | 2.17 |
| | 180 | 673D187F250JL1C | 1.020 × 2.150 | 367.0 | 116.0 | 122.0 | 2.95 |
| | 220 | 673D227F250JP1C | 1.020 × 2.650 | 275.0 | 87.0 | 91.0 | 3.71 |
| | 270 | 673D277F250JS1C | 1.020 × 3.150 | 220.0 | 69.0 | 74.0 | 4.44 |
| | 330 | 673D337F250JT1C | 1.020 × 3.650 | 184.0 | 58.0 | 63.0 | 5.16 |

*The case sizes in table are with sleeve.