

Type 401C -55 °C to 105 °C Low-ESR, Wide Temperature Grade

The Ultimate in Cold Performance and ESR



The Type 401C is the wide-temperature, low-voltage version of the Type 450C. It is ideal for high-ripple current military and industrial applications that need full performance at cold temperatures. It also excels as a power-supply output capacitor because of its exceptionally low ESR. The extended cathode foil of the 401C assures cool operation and heat flow from the capacitor element to the can in all mounting orientations.

Highlights

- Better value than large snap-in capacitors
- Ripple Currents to >50 amps at 55 °C
- ESRs to 3.5 mΩ
- > 90% capacitance at -40 °C
- Thermal-Pak™ extended cathode construction

Specifications

- Operating Temperature:** -55 °C to 105 °C
Rated Voltage: 6.3 to 250 Vdc
Capacitance: 380 μF to 570,000 μF ± 20%
DC Leakage Current: ≤ 1.5 \sqrt{CV} μA, 4 mA max, 5 minutes
Cold Impedance: -55 °C multiple of 25 °C $Z \leq 3$

Ripple Current Multipliers: Ambient Temperature

| 45 °C | 55 °C | 65 °C | 75 °C | 85 °C | 95 °C | 105 °C |
|-------|-------|-------|-------|-------|-------|--------|
| 1.66 | 1.52 | 1.37 | 1.20 | 1.00 | 0.75 | 0.36 |

Frequency

| | 50 Hz | 60 Hz | 120 Hz | 360 Hz | 1 kHz | 5 kHz | 10 kHz & up |
|-------------|-------|-------|--------|--------|-------|-------|-------------|
| 6.3 to 50 V | 0.85 | 0.90 | 1.00 | 1.05 | 1.10 | 1.10 | 1.10 |
| 63 to 250 V | 0.50 | 0.53 | 1.00 | 1.15 | 1.15 | 1.20 | 1.20 |

EIA Ripple Life: 2,000 h at 85 °C per EIA IS-749 with 85 °C ripple current

- Δ Capacitance ±10%
- ESR 200% of limit
- DCL 100% of limit

Life Test: 4,000 h at 105°C with rated voltage

- Δ Capacitance ±10%
- ESR 200% of limit
- DCL 100% of limit

Shelf Life Test: 500 h at +105 °C, capacitance, ESR and DCL, will meet initial requirements

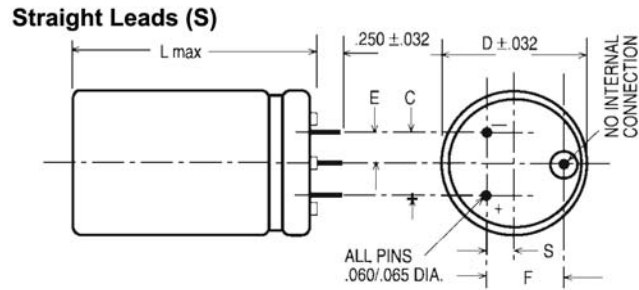
Vibration: 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane



Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

Type 401C $-55\text{ }^{\circ}\text{C}$ to $105\text{ }^{\circ}\text{C}$ Low-ESR, Wide Temperature Grade

Outline Drawings



Case Dimensions

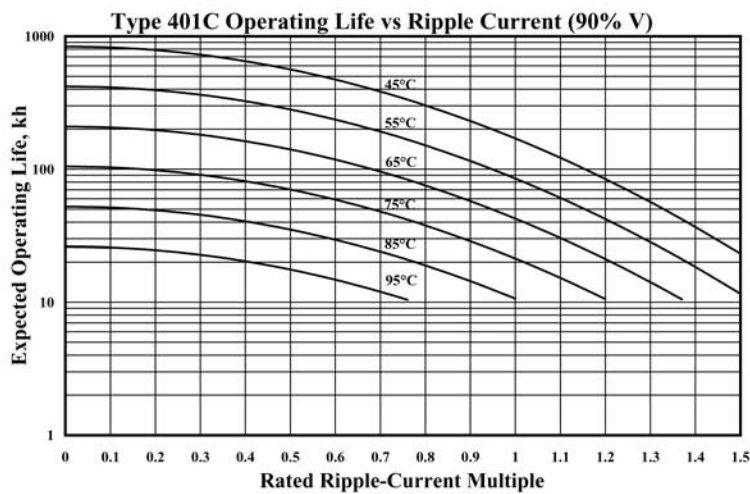
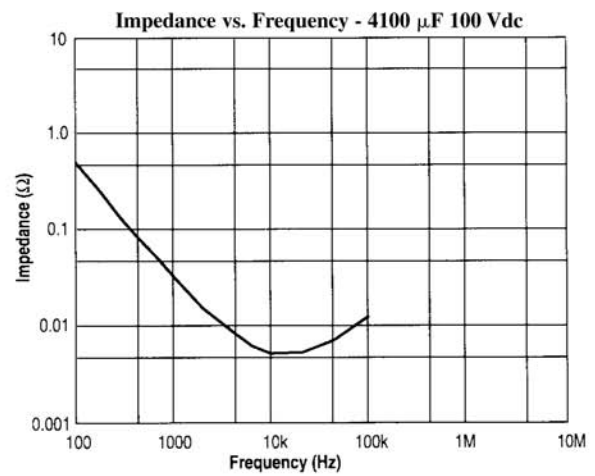
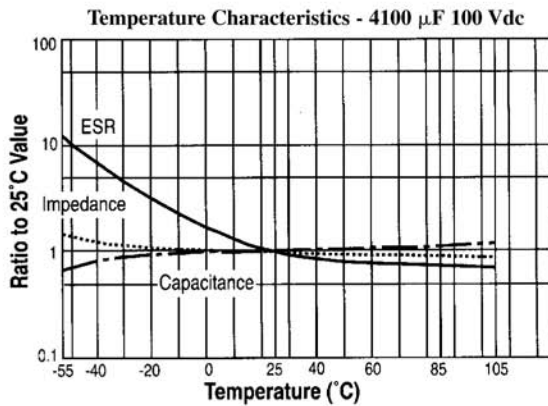
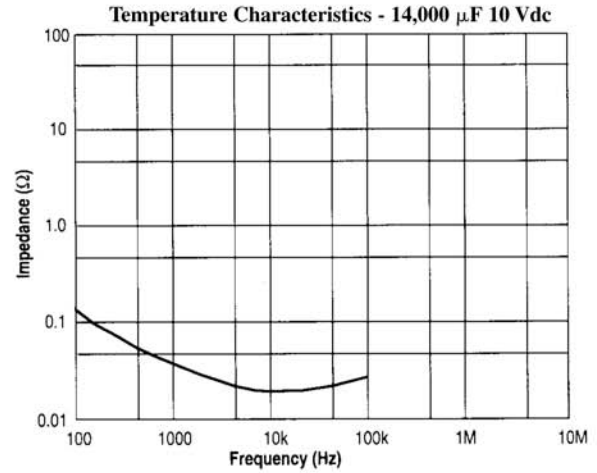
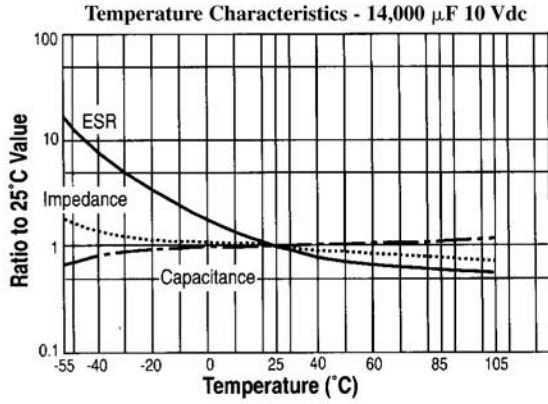
| Case Code | Inches | | | | | | Millimeters | | | | | |
|-----------|----------|-------|----------|----------|----------|----------|-------------|--------|---------|---------|---------|---------|
| | D ± .031 | L MAX | C ± .015 | S ± .031 | E ± .031 | F ± .015 | D ± .78 | L MAX | C ± .78 | S ± .78 | E ± .78 | F ± .38 |
| AK | 1.375 | 1.75 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 44.45 | 12.70 | 4.45 | 6.35 | 13.97 |
| AA | 1.375 | 2.25 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 57.15 | 12.70 | 4.45 | 6.35 | 13.97 |
| AH | 1.375 | 2.75 | 0.50 | 0.175 | 0.25 | 0.55 | 34.98 | 69.85 | 12.70 | 4.45 | 6.35 | 13.97 |
| AB | 1.375 | 3.25 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 82.55 | 12.70 | 4.45 | 6.35 | 13.97 |
| AJ | 1.375 | 3.75 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 95.25 | 12.70 | 4.45 | 6.35 | 13.97 |
| AC | 1.375 | 4.25 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 107.95 | 12.70 | 4.45 | 6.35 | 13.97 |
| AD | 1.375 | 4.75 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 120.65 | 12.70 | 4.45 | 6.35 | 13.97 |
| AE | 1.375 | 5.25 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 133.35 | 12.70 | 4.45 | 6.35 | 13.97 |
| AF | 1.375 | 5.75 | 0.50 | 0.175 | 0.25 | 0.55 | 34.93 | 146.05 | 12.70 | 4.45 | 6.35 | 13.97 |
| EA | 1.75 | 2.25 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 57.15 | 17.78 | 9.53 | 8.89 | 22.86 |
| EH | 1.75 | 2.75 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 69.85 | 17.78 | 9.53 | 8.89 | 22.86 |
| EB | 1.75 | 3.25 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 82.55 | 17.78 | 9.53 | 8.89 | 22.86 |
| EJ | 1.75 | 3.75 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 95.25 | 17.78 | 9.53 | 8.89 | 22.86 |
| EC | 1.75 | 4.25 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 107.95 | 17.78 | 9.53 | 8.89 | 22.86 |
| ED | 1.75 | 4.75 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 120.65 | 17.78 | 9.53 | 8.89 | 22.86 |
| EE | 1.75 | 5.25 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 133.35 | 17.78 | 9.53 | 8.89 | 22.86 |
| EF | 1.75 | 5.75 | 0.70 | 0.375 | 0.35 | 0.90 | 44.45 | 146.05 | 17.78 | 9.53 | 8.89 | 22.86 |
| BA | 2.00 | 2.25 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 57.15 | 20.32 | 10.80 | 10.16 | 25.40 |
| BH | 2.00 | 2.75 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 69.85 | 20.32 | 10.80 | 10.16 | 25.40 |
| BB | 2.00 | 3.25 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 82.55 | 20.32 | 10.80 | 10.16 | 25.40 |
| BJ | 2.00 | 3.75 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 95.25 | 20.32 | 10.80 | 10.16 | 25.40 |
| BC | 2.00 | 4.25 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 107.95 | 20.32 | 10.80 | 10.16 | 25.40 |
| BD | 2.00 | 4.75 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 120.65 | 20.32 | 10.80 | 10.16 | 25.40 |
| BE | 2.00 | 5.25 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 133.25 | 20.32 | 10.80 | 10.16 | 25.40 |
| BF | 2.00 | 5.75 | 0.80 | 0.425 | 0.40 | 1.00 | 50.80 | 146.05 | 20.32 | 10.80 | 10.16 | 25.40 |

Part Numbering System

| | | | | | | |
|-------------|---|--|----------------------------|------------------|--|--------------------------|
| 401C | 393 | M | 100 | AK | 8 | |
| | | | | | | |
| Type | Capacitance | Tolerance | Voltage | Case Code | Insulation | Terminal |
| | 242 = 2400 μF 221 = 220 μF | M = $\pm 20\%$ T = -10% +50% U = -10% +75% | 100 = 100 V 450 = 100 V | | 0 = Bare can 8 = PVC and Standoffs 9 = Polyester and Standoffs | (blank) = Straight Leads |

Type 401C $-55\text{ }^{\circ}\text{C}$ to $105\text{ }^{\circ}\text{C}$ Low-ESR, Wide Temperature Grade

Typical Performance Curves



Type 401C -55°C to 105°C Low-ESR, Wide Temperature Grade Ratings

| Cap. (μF) | Catalog Part Number | ESR Max. 25 $^{\circ}\text{C}$ | | Ripple Amps, 85 $^{\circ}\text{C}$ | | Nominal Size D X L (in) |
|-------------------------------|------------------------|-----------------------------------|-----------|---------------------------------------|---------------|----------------------------------|
| | | 120 Hz kHz | 20 kHz | 120 Hz (A) | 20 kHz (A) | |
| 6.3 Vdc (9 Vdc Surge) | | | | | | |
| 42000 | 401C423M6R3AK8 | 33.40 | 22.70 | 8.40 | 9.20 | 1 3/8 X 1 5/8 |
| 66000 | 401C663M6R3AA8 | 23.00 | 16.10 | 10.80 | 11.80 | 1 3/8 X 2 1/8 |
| 92000 | 401C923M6R3AH8 | 16.80 | 12.00 | 13.00 | 14.20 | 1 3/8 X 2 5/8 |
| 100000 | 401C104M6R3EA8 | 21.20 | 15.00 | 11.90 | 13.40 | 1 3/4 X 2 1/8 |
| 120000 | 401C124M6R3AB8 | 14.60 | 8.50 | 15.40 | 17.00 | 1 3/8 X 3 1/8 |
| 140000 | 401C144M6R3AJ8 | 12.30 | 7.30 | 17.70 | 19.20 | 1 3/8 X 3 5/8 |
| 150000 | 401C154M6R3BA8 | 12.70 | 10.30 | 16.40 | 17.20 | 2 X 2 1/8 |
| 150000 | 401C154M6R3EH8 | 15.10 | 10.70 | 15.10 | 16.90 | 1 3/4 X 2 5/8 |
| 170000 | 401C174M6R3AC8 | 10.80 | 6.40 | 19.70 | 21.30 | 1 3/8 X 4 1/8 |
| 200000 | 401C204M6R3AD8 | 9.70 | 5.80 | 21.50 | 23.10 | 1 3/8 X 4 5/8 |
| 200000 | 401C204M6R3BH8 | 9.30 | 7.30 | 20.50 | 22.10 | 2 X 2 5/8 |
| 200000 | 401C204M6R3EB8 | 11.90 | 8.40 | 18.20 | 20.40 | 1 3/4 X 3 1/8 |
| 230000 | 401C234M6R3AE8 | 9.00 | 5.40 | 23.30 | 24.90 | 1 3/8 X 5 1/8 |
| 250000 | 401C254M6R3BB8 | 7.40 | 5.80 | 24.20 | 26.00 | 2 X 3 1/8 |
| 250000 | 401C254M6R3EJ8 | 10.00 | 7.10 | 20.50 | 22.80 | 1 3/4 X 3 5/8 |
| 260000 | 401C264M6R3AF8 | 8.40 | 5.10 | 25.10 | 26.70 | 1 3/8 X 5 5/8 |
| 290000 | 401C294M6R3EC8 | 8.70 | 6.20 | 22.60 | 25.20 | 1 3/4 X 4 1/8 |
| 310000 | 401C314M6R3BJ8 | 6.50 | 4.90 | 26.60 | 28.80 | 2 X 3 5/8 |
| 350000 | 401C354M6R3ED8 | 7.80 | 5.60 | 25.00 | 27.80 | 1 3/4 X 4 5/8 |
| 370000 | 401C374M6R3BC8 | 5.70 | 4.30 | 29.00 | 30.80 | 2 X 4 1/8 |
| 390000 | 401C394M6R3EE8 | 7.20 | 5.10 | 27.50 | 30.50 | 1 3/4 X 5 1/8 |
| 420000 | 401C424M6R3BD8 | 5.20 | 3.90 | 30.90 | 33.40 | 2 X 4 5/8 |
| 440000 | 401C444M6R3EF8 | 6.70 | 4.80 | 30.30 | 33.40 | 1 3/4 X 5 5/8 |
| 510000 | 401C514M6R3BE8 | 4.80 | 3.60 | 32.60 | 35.80 | 2 X 5 1/8 |
| 570000 | 401C574M6R3BF8 | 4.50 | 3.50 | 34.00 | 37.90 | 2 X 5 5/8 |
| 7.5 Vdc (10 Vdc Surge) | | | | | | |
| 41000 | 401C413M7R5AK8 | 33.40 | 22.70 | 8.40 | 9.20 | 1 3/8 X 1 5/8 |
| 62000 | 401C623M7R5AA8 | 23.00 | 16.10 | 10.80 | 11.80 | 1 3/8 X 2 1/8 |
| 90000 | 401C903M7R5AH8 | 16.80 | 12.00 | 13.00 | 14.20 | 1 3/8 X 2 5/8 |
| 100000 | 401C104M7R5EA8 | 21.20 | 15.00 | 11.90 | 13.40 | 1 3/4 X 2 1/8 |
| 120000 | 401C124M7R5AB8 | 14.60 | 9.50 | 15.40 | 17.00 | 1 3/8 X 3 1/8 |
| 140000 | 401C144M7R5AJ8 | 12.30 | 8.00 | 17.70 | 19.20 | 1 3/8 X 3 5/8 |
| 140000 | 401C144M7R5BA8 | 12.70 | 10.30 | 16.40 | 17.20 | 2 X 2 1/8 |
| 150000 | 401C154M7R5EH8 | 15.10 | 10.70 | 15.10 | 16.90 | 1 3/4 X 2 5/8 |
| 170000 | 401C174M7R5AC8 | 10.80 | 7.10 | 19.70 | 21.30 | 1 3/8 X 4 1/8 |
| 190000 | 401C194M7R5AD8 | 9.70 | 6.40 | 21.50 | 23.10 | 1 3/8 X 4 5/8 |
| 190000 | 401C194M7R5BH8 | 9.30 | 7.30 | 20.50 | 22.10 | 2 X 2 5/8 |
| 190000 | 401C194M7R5EB8 | 11.90 | 8.40 | 18.20 | 20.40 | 1 3/4 X 3 1/8 |
| 230000 | 401C234M7R5AE8 | 9.00 | 5.90 | 23.30 | 24.90 | 1 3/8 X 5 1/8 |
| 240000 | 401C244M7R5EJ8 | 10.00 | 7.10 | 20.50 | 22.80 | 1 3/4 X 3 5/8 |
| 250000 | 401C254M7R5AF8 | 8.40 | 5.60 | 25.10 | 26.70 | 1 3/8 X 5 5/8 |
| 250000 | 401C254M7R5BB8 | 7.40 | 5.80 | 24.20 | 26.00 | 2 X 3 1/8 |
| 290000 | 401C294M7R5EC8 | 8.70 | 6.20 | 22.60 | 25.20 | 1 3/4 X 4 1/8 |
| 300000 | 401C304M7R5BJ8 | 6.50 | 4.90 | 26.60 | 28.80 | 2 X 3 5/8 |
| 340000 | 401C344M7R5ED8 | 7.80 | 5.60 | 25.00 | 27.80 | 1 3/4 X 4 5/8 |
| 370000 | 401C374M7R5BC8 | 5.70 | 4.30 | 29.00 | 30.80 | 2 X 4 1/8 |

| Cap. (μF) | Catalog Part Number | ESR Max. 25 $^{\circ}\text{C}$ | | Ripple Amps, 85 $^{\circ}\text{C}$ | | Nominal Size D X L (in) |
|------------------------------|------------------------|-----------------------------------|-----------|---------------------------------------|---------------|----------------------------------|
| | | 120 Hz kHz | 20 kHz | 120 Hz (A) | 20 kHz (A) | |
| 380000 | 401C384M7R5EE8 | 7.20 | 5.10 | 27.50 | 30.50 | 1 3/4 X 5 1/8 |
| 420000 | 401C424M7R5BD8 | 5.20 | 3.90 | 30.90 | 33.40 | 2 X 4 5/8 |
| 440000 | 401C444M7R5EF8 | 6.70 | 4.80 | 30.30 | 33.40 | 1 3/4 X 5 5/8 |
| 500000 | 401C504M7R5BE8 | 4.80 | 3.60 | 32.60 | 35.80 | 2 X 5 1/8 |
| 560000 | 401C564M7R5BF8 | 4.50 | 3.50 | 34.00 | 37.90 | 2 X 5 5/8 |
| 10 Vdc (15 Vdc Surge) | | | | | | |
| 31000 | 401C313M010AK8 | 33.40 | 22.70 | 8.40 | 9.20 | 1 3/8 X 1 5/8 |
| 50000 | 401C503M010AA8 | 23.00 | 16.10 | 10.80 | 11.80 | 1 3/8 X 2 1/8 |
| 69000 | 401C693M010AH8 | 16.80 | 12.00 | 13.00 | 14.20 | 1 3/8 X 2 5/8 |
| 81000 | 401C813M010EA8 | 21.20 | 13.30 | 11.90 | 13.40 | 1 3/4 X 2 1/8 |
| 91000 | 401C913M010AB8 | 14.60 | 9.50 | 15.40 | 17.00 | 1 3/8 X 3 1/8 |
| 110000 | 401C114M010AJ8 | 12.30 | 8.00 | 17.70 | 19.20 | 1 3/8 X 3 5/8 |
| 110000 | 401C114M010BA8 | 12.70 | 10.30 | 16.40 | 17.20 | 2 X 2 1/8 |
| 120000 | 401C124M010EH8 | 15.10 | 9.50 | 15.10 | 16.90 | 1 3/4 X 2 5/8 |
| 130000 | 401C134M010AC8 | 10.80 | 7.10 | 19.70 | 21.30 | 1 3/8 X 4 1/8 |
| 150000 | 401C154M010AD8 | 9.70 | 6.40 | 21.50 | 23.10 | 1 3/8 X 4 5/8 |
| 150000 | 401C154M010BH8 | 9.30 | 7.30 | 20.50 | 22.10 | 2 X 2 5/8 |
| 150000 | 401C154M010EB8 | 11.90 | 7.50 | 18.20 | 20.40 | 1 3/4 X 3 1/8 |
| 170000 | 401C174M010AE8 | 9.00 | 5.90 | 23.30 | 24.90 | 1 3/8 X 5 1/8 |
| 180000 | 401C184M010EJ8 | 10.00 | 6.30 | 20.50 | 22.80 | 1 3/4 X 3 5/8 |
| 190000 | 401C194M010AF8 | 8.40 | 5.60 | 25.10 | 26.70 | 1 3/8 X 5 5/8 |
| 190000 | 401C194M010BB8 | 7.40 | 5.80 | 24.20 | 26.00 | 2 X 3 1/8 |
| 230000 | 401C234M010EC8 | 8.70 | 5.50 | 22.60 | 25.20 | 1 3/4 X 4 1/8 |
| 240000 | 401C244M010BJ8 | 6.50 | 4.90 | 26.60 | 28.80 | 2 X 3 5/8 |
| 260000 | 401C264M010ED8 | 7.80 | 5.00 | 25.00 | 27.80 | 1 3/4 X 4 5/8 |
| 280000 | 401C284M010BC8 | 5.70 | 4.30 | 29.00 | 30.80 | 2 X 4 1/8 |
| 290000 | 401C294M010EE8 | 7.20 | 4.60 | 27.50 | 30.50 | 1 3/4 X 5 1/8 |
| 330000 | 401C334M010BD8 | 5.20 | 3.90 | 30.90 | 33.40 | 2 X 4 5/8 |
| 340000 | 401C344M010EF8 | 6.70 | 4.30 | 30.30 | 33.40 | 1 3/4 X 5 5/8 |
| 390000 | 401C394M010BE8 | 4.80 | 3.60 | 32.60 | 35.80 | 2 X 5 1/8 |
| 440000 | 401C444M010BF8 | 4.50 | 3.50 | 34.00 | 37.90 | 2 X 5 5/8 |
| 16 Vdc (24 Vdc Surge) | | | | | | |
| 20000 | 401C203M016AK8 | 34.70 | 23.00 | 8.30 | 9.10 | 1 3/8 X 1 5/8 |
| 33000 | 401C333M016AA8 | 23.90 | 16.30 | 10.60 | 11.70 | 1 3/8 X 2 1/8 |
| 46000 | 401C463M016AH8 | 17.40 | 11.20 | 12.80 | 14.20 | 1 3/8 X 2 5/8 |
| 53000 | 401C533M016EA8 | 21.50 | 15.90 | 11.80 | 13.30 | 1 3/4 X 2 1/8 |
| 60000 | 401C603M016AB8 | 14.90 | 8.90 | 15.20 | 16.90 | 1 3/8 X 3 1/8 |
| 74000 | 401C743M016AJ8 | 12.50 | 7.50 | 17.50 | 19.10 | 1 3/8 X 3 5/8 |
| 75000 | 401C753M016BA8 | 12.70 | 10.20 | 16.40 | 17.40 | 2 X 2 1/8 |
| 78000 | 401C783M016EH8 | 15.30 | 11.30 | 14.90 | 16.80 | 1 3/4 X 2 5/8 |
| 89000 | 401C893M016AC8 | 11.00 | 6.60 | 19.50 | 21.20 | 1 3/8 X 4 1/8 |
| 100000 | 401C104M016AD8 | 9.40 | 7.30 | 20.40 | 22.10 | 2 X 2 5/8 |
| 100000 | 401C104M016BH8 | 12.00 | 8.90 | 18.10 | 20.30 | 1 3/4 X 3 1/8 |
| 100000 | 401C104M016EB8 | 9.90 | 6.00 | 21.30 | 23.00 | 1 3/8 X 4 5/8 |
| 120000 | 401C124M016AE8 | 9.10 | 5.50 | 23.10 | 24.80 | 1 3/8 X 5 1/8 |
| 130000 | 401C134M016AF8 | 8.60 | 5.20 | 24.90 | 26.60 | 1 3/8 X 5 5/8 |
| 130000 | 401C134M016BB8 | 7.50 | 5.80 | 24.00 | 26.00 | 2 X 3 1/8 |

Type 401C -55°C to 105°C Low-ESR, Wide Temperature Grade

| Cap. (μF) | Catalog Part Number | ESR Max. 25 $^{\circ}\text{C}$ | | Ripple Amps, 85 $^{\circ}\text{C}$ | | Nominal Size D X L (in) |
|------------------------------|------------------------|-----------------------------------|--------------------------------|---------------------------------------|---------------|----------------------------------|
| | | 120 Hz ($\text{m}\Omega$) | 20 kHz ($\text{m}\Omega$) | 120 Hz (A) | 20 kHz (A) | |
| 130000 | 401C134M016EJ8 | 10.10 | 7.50 | 20.30 | 22.80 | 1 3/4 X 3 5/8 |
| 150000 | 401C154M016EC8 | 8.80 | 6.60 | 22.50 | 25.10 | 1 3/4 X 4 1/8 |
| 160000 | 401C164M016BJ8 | 6.60 | 5.00 | 26.40 | 28.80 | 2 X 3 5/8 |
| 170000 | 401C174M016ED8 | 7.90 | 6.00 | 24.90 | 27.70 | 1 3/4 X 4 5/8 |
| 180000 | 401C184M016BC8 | 5.80 | 4.40 | 28.80 | 30.70 | 2 X 4 1/8 |
| 190000 | 401C194M016EE8 | 7.30 | 5.50 | 27.40 | 30.40 | 1 3/4 X 5 1/8 |
| 220000 | 401C224M016BD8 | 5.20 | 4.00 | 30.70 | 33.30 | 2 X 4 5/8 |
| 220000 | 401C224M016EF8 | 6.80 | 5.20 | 30.10 | 33.40 | 1 3/4 X 5 5/8 |
| 260000 | 401C264M016BE8 | 4.80 | 3.70 | 32.40 | 35.70 | 2 X 5 1/8 |
| 280000 | 401C284M016BF8 | 4.60 | 3.50 | 33.80 | 37.90 | 2 X 5 5/8 |
| 20 Vdc (30 Vdc Surge) | | | | | | |
| 17000 | 401C173M020AK8 | 37.90 | 23.70 | 8.40 | 9.10 | 1 3/8 X 1 5/8 |
| 26000 | 401C263M020AA8 | 26.00 | 16.80 | 10.90 | 11.70 | 1 3/8 X 2 1/8 |
| 33000 | 401C333M020AH8 | 18.90 | 12.40 | 13.20 | 14.10 | 1 3/8 X 2 5/8 |
| 45000 | 401C453M020EA8 | 22.30 | 15.50 | 11.60 | 13.30 | 1 3/4 X 2 1/8 |
| 50000 | 401C503M020AB8 | 15.60 | 9.90 | 15.10 | 16.80 | 1 3/8 X 3 1/8 |
| 58000 | 401C583M020BA8 | 13.20 | 10.40 | 16.10 | 17.30 | 2 X 2 1/8 |
| 61000 | 401C613M020AJ8 | 13.10 | 8.30 | 17.10 | 19.00 | 1 3/8 X 3 5/8 |
| 64000 | 401C643M020EH8 | 15.80 | 11.00 | 14.70 | 16.80 | 1 3/4 X 2 5/8 |
| 73000 | 401C733M020AC8 | 11.50 | 7.30 | 19.10 | 21.10 | 1 3/8 X 4 1/8 |
| 82000 | 401C823M020BH8 | 9.80 | 7.50 | 20.10 | 22.00 | 2 X 2 5/8 |
| 84000 | 401C843M020EB8 | 12.40 | 8.70 | 17.80 | 20.30 | 1 3/4 X 3 1/8 |
| 85000 | 401C853M020AD8 | 10.30 | 6.60 | 20.90 | 22.90 | 1 3/8 X 4 5/8 |
| 96000 | 401C963M020AE8 | 9.50 | 6.10 | 22.60 | 24.70 | 1 3/8 X 5 1/8 |
| 100000 | 401C104M020AF8 | 10.40 | 7.30 | 20.00 | 22.70 | 1 3/4 X 3 5/8 |
| 100000 | 401C104M020BB8 | 7.70 | 5.90 | 23.70 | 25.90 | 2 X 3 1/8 |
| 100000 | 401C104M020EJ8 | 8.90 | 5.80 | 24.40 | 26.50 | 1 3/8 X 5 5/8 |
| 120000 | 401C124M020EC8 | 9.10 | 6.40 | 22.10 | 25.00 | 1 3/4 X 4 1/8 |
| 130000 | 401C134M020BJ8 | 6.80 | 5.00 | 26.00 | 28.70 | 2 X 3 5/8 |
| 140000 | 401C144M020ED8 | 8.10 | 5.70 | 24.50 | 27.60 | 1 3/4 X 4 5/8 |
| 150000 | 401C154M020BC8 | 6.00 | 4.50 | 28.50 | 30.70 | 2 X 4 1/8 |
| 160000 | 401C164M020EE8 | 7.50 | 5.30 | 27.00 | 30.30 | 1 3/4 X 5 1/8 |
| 170000 | 401C174M020BD8 | 5.40 | 4.00 | 30.30 | 33.20 | 2 X 4 5/8 |
| 180000 | 401C184M020EF8 | 7.00 | 4.90 | 29.70 | 33.30 | 1 3/4 X 5 5/8 |
| 220000 | 401C224M020BE8 | 4.90 | 3.70 | 32.10 | 35.70 | 2 X 5 1/8 |
| 240000 | 401C244M020BF8 | 4.70 | 3.50 | 33.50 | 37.80 | 2 X 5 5/8 |
| 25 Vdc (35 Vdc Surge) | | | | | | |
| 13000 | 401C133M025AK8 | 41.00 | 24.40 | 8.10 | 9.00 | 1 3/8 X 1 5/8 |
| 20000 | 401C203M025AA8 | 28.10 | 17.20 | 10.50 | 11.60 | 1 3/8 X 2 1/8 |
| 33000 | 401C333M025AH8 | 20.30 | 12.80 | 12.80 | 14.00 | 1 3/8 X 2 5/8 |
| 35000 | 401C353M025EA8 | 23.00 | 15.80 | 11.40 | 13.20 | 1 3/4 X 2 1/8 |
| 38000 | 401C383M025AB8 | 16.30 | 10.10 | 14.60 | 16.70 | 1 3/8 X 3 1/8 |
| 45000 | 401C453M025BA8 | 13.60 | 10.60 | 15.90 | 17.30 | 2 X 2 1/8 |
| 48000 | 401C483M025AJ8 | 13.60 | 8.50 | 16.70 | 18.90 | 1 3/8 X 3 5/8 |
| 50000 | 401C503M025EH8 | 16.30 | 11.20 | 14.40 | 16.70 | 1 3/4 X 2 5/8 |
| 57000 | 401C573M025AC8 | 11.90 | 7.50 | 18.70 | 21.00 | 1 3/8 X 4 1/8 |
| 63000 | 401C633M025BH8 | 10.10 | 7.60 | 19.80 | 21.90 | 2 X 2 5/8 |

| Cap. (μF) | Catalog Part Number | ESR Max. 25 $^{\circ}\text{C}$ | | Ripple Amps, 85 $^{\circ}\text{C}$ | | Nominal Size D X L (in) |
|------------------------------|------------------------|-----------------------------------|--------------------------------|---------------------------------------|---------------|----------------------------------|
| | | 120 Hz ($\text{m}\Omega$) | 20 kHz ($\text{m}\Omega$) | 120 Hz (A) | 20 kHz (A) | |
| 66000 | 401C663M025AD8 | 10.70 | 6.80 | 20.40 | 22.80 | 1 3/8 X 4 5/8 |
| 66000 | 401C663M025EB8 | 12.80 | 8.80 | 17.50 | 20.20 | 1 3/4 X 3 1/8 |
| 75000 | 401C753M025AE8 | 9.90 | 6.30 | 22.20 | 24.60 | 1 3/8 X 5 1/8 |
| 81000 | 401C813M025EJ8 | 10.70 | 7.40 | 19.70 | 22.60 | 1 3/4 X 3 5/8 |
| 83000 | 401C833M025BB8 | 8.00 | 6.10 | 23.40 | 25.80 | 2 X 3 1/8 |
| 84000 | 401C843M025AF8 | 9.20 | 5.90 | 23.90 | 26.40 | 1 3/8 X 5 5/8 |
| 96000 | 401C963M025EC8 | 9.30 | 6.50 | 21.80 | 25.00 | 1 3/4 X 4 1/8 |
| 100000 | 401C104M025BJ8 | 7.00 | 5.10 | 25.70 | 28.60 | 2 X 3 5/8 |
| 110000 | 401C114M025ED8 | 8.40 | 5.80 | 24.20 | 27.50 | 1 3/4 X 4 5/8 |
| 120000 | 401C124M025BC8 | 6.10 | 4.50 | 28.10 | 30.60 | 2 X 4 1/8 |
| 130000 | 401C134M025EE8 | 7.70 | 5.30 | 26.60 | 30.20 | 1 3/4 X 5 1/8 |
| 140000 | 401C144M025BD8 | 5.50 | 4.10 | 29.90 | 33.20 | 2 X 4 5/8 |
| 140000 | 401C144M025EF8 | 7.10 | 5.00 | 29.30 | 33.20 | 1 3/4 X 5 5/8 |
| 160000 | 401C164M025BE8 | 5.10 | 3.80 | 31.70 | 35.60 | 2 X 5 1/8 |
| 180000 | 401C184M025BF8 | 4.80 | 3.60 | 33.10 | 37.70 | 2 X 5 5/8 |
| 40 Vdc (60 Vdc Surge) | | | | | | |
| 8200 | 401C822M040AK8 | 44.20 | 25.90 | 7.60 | 8.80 | 1 3/8 X 1 5/8 |
| 12000 | 401C123M040AA8 | 30.20 | 18.30 | 9.70 | 11.40 | 1 3/8 X 2 1/8 |
| 20000 | 401C203M040EA8 | 24.70 | 16.50 | 11.00 | 13.10 | 1 3/4 X 2 1/8 |
| 22000 | 401C223M040AH8 | 22.10 | 13.60 | 11.90 | 13.80 | 1 3/8 X 2 5/8 |
| 23000 | 401C233M040AB8 | 17.80 | 10.70 | 13.70 | 16.50 | 1 3/8 X 3 1/8 |
| 27000 | 401C273M040BA8 | 14.70 | 11.10 | 15.10 | 17.10 | 2 X 2 1/8 |
| 28000 | 401C283M040AJ8 | 14.90 | 9.00 | 15.20 | 18.60 | 1 3/8 X 3 5/8 |
| 30000 | 401C303M040EH8 | 17.50 | 11.70 | 13.90 | 16.50 | 1 3/4 X 2 5/8 |
| 34000 | 401C343M040AC8 | 13.00 | 7.90 | 16.50 | 20.70 | 1 3/8 X 4 1/8 |
| 38000 | 401C383M040BH8 | 10.80 | 8.00 | 19.00 | 21.80 | 2 X 2 5/8 |
| 39000 | 401C393M040AD8 | 11.60 | 7.10 | 18.10 | 22.50 | 1 3/8 X 4 5/8 |
| 39000 | 401C393M040EB8 | 13.70 | 9.20 | 16.90 | 20.00 | 1 3/4 X 3 1/8 |
| 45000 | 401C453M040AE8 | 10.70 | 6.60 | 19.70 | 24.30 | 1 3/8 X 5 1/8 |
| 49000 | 401C493M040EJ8 | 11.40 | 7.70 | 19.10 | 22.50 | 1 3/4 X 3 5/8 |
| 50000 | 401C503M040BB8 | 8.60 | 6.30 | 22.50 | 25.70 | 2 X 3 1/8 |
| 50000 | 401C503M040AF8 | 9.90 | 6.20 | 21.30 | 26.10 | 1 3/8 X 5 5/8 |
| 58000 | 401C583M040EC8 | 9.90 | 6.70 | 21.10 | 24.80 | 1 3/4 X 4 1/8 |
| 61000 | 401C613M040BJ8 | 7.50 | 5.30 | 25.00 | 28.40 | 2 X 3 5/8 |
| 68000 | 401C683M040ED8 | 8.90 | 6.00 | 23.40 | 27.40 | 1 3/4 X 4 5/8 |
| 73000 | 401C733M040BC8 | 6.50 | 4.70 | 27.00 | 30.40 | 2 X 4 1/8 |
| 77000 | 401C773M040EE8 | 8.10 | 5.50 | 25.90 | 30.00 | 1 3/4 X 5 1/8 |
| 84000 | 401C843M040BD8 | 5.90 | 4.20 | 29.10 | 33.00 | 2 X 4 5/8 |
| 86000 | 401C863M040EF8 | 7.60 | 5.20 | 28.50 | 33.00 | 1 3/4 X 5 5/8 |
| 100000 | 401C104M040BE8 | 5.40 | 3.90 | 30.90 | 35.40 | 2 X 5 1/8 |
| 110000 | 401C114M040BF8 | 5.10 | 3.70 | 31.80 | 37.50 | 2 X 5 5/8 |
| 50 Vdc (75 Vdc Surge) | | | | | | |
| 5600 | 401C562M050AK8 | 46.60 | 27.30 | 7.20 | 8.40 | 1 3/8 X 1 5/8 |
| 8400 | 401C842M050AA8 | 30.20 | 19.30 | 9.20 | 10.80 | 1 3/8 X 2 1/8 |
| 11000 | 401C113M050AH8 | 22.50 | 14.30 | 11.60 | 13.10 | 1 3/8 X 2 5/8 |
| 14000 | 401C143M050EA8 | 28.30 | 18.90 | 10.00 | 11.80 | 1 3/4 X 2 1/8 |
| 15000 | 401C153M050AB8 | 18.10 | 11.30 | 13.40 | 15.70 | 1 3/8 X 3 1/8 |

Type 401C -55 °C to 105 °C Low-ESR, Wide Temperature Grade

| Cap. (µF) | Catalog Part Number | ESR Max. 25 °C | | Ripple Amps, 85 °C | | Nominal Size D X L (in) |
|------------------------------|------------------------|-------------------|----------------|-----------------------|---------------|----------------------------------|
| | | 120 Hz (mΩ) | 20 kHz (mΩ) | 120 Hz (A) | 20 kHz (A) | |
| 18000 | 401C183M050BA8 | 18.70 | 14.40 | 12.40 | 14.80 | 2 X 2 1/8 |
| 19000 | 401C193M050AJ8 | 15.10 | 9.50 | 14.60 | 17.80 | 1 3/8 X 3 5/8 |
| 20000 | 401C203M050EH8 | 20.00 | 13.40 | 12.70 | 15.00 | 1 3/4 X 2 5/8 |
| 23000 | 401C233M050AC8 | 13.00 | 8.30 | 15.30 | 19.90 | 1 3/8 X 4 1/8 |
| 26000 | 401C263M050BH8 | 13.70 | 10.20 | 15.90 | 18.90 | 2 X 2 5/8 |
| 27000 | 401C273M050AD8 | 12.20 | 7.40 | 16.70 | 21.70 | 1 3/8 X 4 5/8 |
| 27000 | 401C273M050EB8 | 15.60 | 10.50 | 15.50 | 18.20 | 1 3/4 X 3 1/8 |
| 30000 | 401C303M050AE8 | 11.20 | 6.80 | 18.10 | 23.40 | 1 3/8 X 5 1/8 |
| 33000 | 401C333M050EJ8 | 13.00 | 8.80 | 17.60 | 20.50 | 1 3/4 X 3 5/8 |
| 34000 | 401C343M050AF8 | 10.40 | 6.40 | 19.40 | 25.20 | 1 3/8 X 5 5/8 |
| 34000 | 401C343M050BB8 | 10.80 | 8.10 | 18.90 | 22.40 | 2 X 3 1/8 |
| 39000 | 401C393M050EC8 | 11.20 | 7.60 | 19.50 | 22.70 | 1 3/4 X 4 1/8 |
| 41000 | 401C413M050BJ8 | 9.30 | 6.80 | 22.60 | 25.00 | 2 X 3 5/8 |
| 46000 | 401C463M050ED8 | 10.00 | 6.80 | 21.70 | 25.20 | 1 3/4 X 4 5/8 |
| 50000 | 401C503M050BC8 | 8.10 | 5.90 | 24.30 | 26.90 | 2 X 4 1/8 |
| 52000 | 401C523M050EE8 | 9.10 | 6.20 | 24.10 | 27.80 | 1 3/4 X 5 1/8 |
| 58000 | 401C583M050EF8 | 8.40 | 5.80 | 26.60 | 30.60 | 1 3/4 X 5 5/8 |
| 58000 | 401C583M050BD8 | 7.20 | 5.30 | 26.10 | 29.20 | 2 X 4 5/8 |
| 60000 | 401C603M050BE8 | 6.50 | 4.80 | 28.00 | 31.70 | 2 X 5 1/8 |
| 70000 | 401C703M050BF8 | 6.10 | 4.50 | 28.90 | 33.90 | 2 X 5 5/8 |
| 63 Vdc (90 Vdc Surge) | | | | | | |
| 4800 | 401C482M063AK8 | 50.00 | 28.20 | 6.90 | 8.30 | 1 3/8 X 1 5/8 |
| 7200 | 401C722M063AA8 | 32.40 | 19.60 | 8.90 | 10.70 | 1 3/8 X 2 1/8 |
| 11000 | 401C113M063AH8 | 24.10 | 14.70 | 11.20 | 13.00 | 1 3/8 X 2 5/8 |
| 12000 | 401C123M063EA8 | 26.00 | 19.30 | 9.90 | 11.80 | 1 3/4 X 2 1/8 |
| 13000 | 401C133M063AB8 | 19.00 | 11.60 | 13.00 | 15.60 | 1 3/8 X 3 1/8 |
| 15000 | 401C153M063BA8 | 19.30 | 14.70 | 11.90 | 14.80 | 2 X 2 1/8 |
| 16000 | 401C163M063AJ8 | 15.80 | 9.70 | 14.20 | 17.70 | 1 3/8 X 3 5/8 |
| 17000 | 401C173M063EH8 | 18.30 | 13.70 | 12.50 | 14.90 | 1 3/4 X 2 5/8 |
| 19000 | 401C193M063AC8 | 13.60 | 8.50 | 14.90 | 19.80 | 1 3/8 X 4 1/8 |
| 22000 | 401C223M063BH8 | 14.10 | 10.40 | 15.30 | 18.90 | 2 X 2 5/8 |
| 23000 | 401C233M063EB8 | 12.70 | 7.60 | 16.30 | 21.50 | 1 3/8 X 4 5/8 |
| 23000 | 401C233M063AD8 | 14.30 | 10.70 | 15.30 | 18.10 | 1 3/4 X 3 1/8 |
| 26000 | 401C263M063AE8 | 11.60 | 7.00 | 17.70 | 23.30 | 1 3/8 X 5 1/8 |
| 28000 | 401C283M063EJ8 | 11.90 | 8.90 | 17.30 | 20.40 | 1 3/4 X 3 5/8 |
| 29000 | 401C293M063BB8 | 10.80 | 6.60 | 19.10 | 25.10 | 1 3/8 X 5 5/8 |
| 29000 | 401C293M063AF8 | 11.10 | 8.20 | 18.10 | 22.40 | 2 X 3 1/8 |
| 34000 | 401C343M063EC8 | 10.30 | 7.70 | 19.20 | 22.60 | 1 3/4 X 4 1/8 |
| 36000 | 401C363M063BJ8 | 9.60 | 6.90 | 22.20 | 24.90 | 2 X 3 5/8 |
| 39000 | 401C393M063ED8 | 9.20 | 6.90 | 21.40 | 25.10 | 1 3/4 X 4 5/8 |
| 42000 | 401C423M063BC8 | 8.30 | 6.00 | 24.00 | 26.80 | 2 X 4 1/8 |
| 45000 | 401C453M063EE8 | 8.30 | 6.30 | 23.70 | 27.70 | 1 3/4 X 5 1/8 |
| 50000 | 401C503M063BD8 | 7.70 | 5.90 | 26.30 | 30.50 | 1 3/4 X 5 5/8 |
| 50000 | 401C503M063EF8 | 7.40 | 5.40 | 25.80 | 29.10 | 2 X 4 5/8 |
| 59000 | 401C593M063BE8 | 6.70 | 4.80 | 27.70 | 31.70 | 2 X 5 1/8 |
| 66000 | 401C663M063BF8 | 6.20 | 4.50 | 28.60 | 33.80 | 2 X 5 5/8 |

| Cap. (µF) | Catalog Part Number | ESR Max. 25 °C | | Ripple Amps, 85 °C | | Nominal Size D X L (in) |
|--------------------------------|------------------------|-------------------|----------------|-----------------------|---------------|----------------------------------|
| | | 120 Hz (mΩ) | 20 kHz (mΩ) | 120 Hz (A) | 20 kHz (A) | |
| 75 Vdc (100 Vdc Surge) | | | | | | |
| 2500 | 401C252M075AK8 | 93.80 | 46.00 | 5.70 | 6.40 | 1 3/8 X 1 5/8 |
| 4100 | 401C412M075AA8 | 59.00 | 29.10 | 7.60 | 8.60 | 1 3/8 X 2 1/8 |
| 6600 | 401C662M075AH8 | 39.80 | 19.70 | 9.70 | 10.70 | 1 3/8 X 2 5/8 |
| 7900 | 401C792M075EA8 | 41.00 | 21.20 | 9.00 | 10.70 | 1 3/4 X 2 1/8 |
| 8200 | 401C822M075AB8 | 30.30 | 15.10 | 11.40 | 13.10 | 1 3/8 X 3 1/8 |
| 10000 | 401C103M075BA8 | 30.80 | 17.50 | 9.00 | 14.30 | 2 X 2 1/8 |
| 10000 | 401C103M075AJ8 | 24.60 | 12.40 | 12.20 | 15.00 | 1 3/8 X 3 5/8 |
| 11000 | 401C113M075EH8 | 28.70 | 14.90 | 11.40 | 13.60 | 1 3/4 X 2 5/8 |
| 12000 | 401C123M075AC8 | 20.90 | 10.70 | 12.90 | 17.00 | 1 3/8 X 4 1/8 |
| 14000 | 401C143M075BH8 | 18.30 | 9.40 | 14.20 | 18.70 | 1 3/8 X 4 5/8 |
| 14000 | 401C143M075AD8 | 21.70 | 12.30 | 13.00 | 17.80 | 2 X 2 5/8 |
| 15000 | 401C153M075EB8 | 22.30 | 11.70 | 13.90 | 16.60 | 1 3/4 X 3 1/8 |
| 16000 | 401C163M075AE8 | 16.30 | 8.50 | 15.50 | 20.40 | 1 3/8 X 5 1/8 |
| 18000 | 401C183M075BB8 | 14.90 | 7.90 | 16.90 | 22.20 | 1 3/8 X 5 5/8 |
| 18000 | 401C183M075EJ8 | 18.30 | 9.70 | 15.80 | 18.70 | 1 3/4 X 3 5/8 |
| 18000 | 401C183M075AF8 | 16.80 | 9.70 | 15.40 | 21.60 | 2 X 3 1/8 |
| 22000 | 401C223M075EC8 | 15.70 | 8.30 | 17.60 | 20.80 | 1 3/4 X 4 1/8 |
| 23000 | 401C233M075BJ8 | 13.90 | 8.10 | 21.30 | 24.10 | 2 X 3 5/8 |
| 25000 | 401C253M075ED8 | 13.80 | 7.40 | 19.70 | 23.20 | 1 3/4 X 4 5/8 |
| 27000 | 401C273M075BC8 | 12.00 | 7.00 | 20.40 | 26.00 | 2 X 4 1/8 |
| 28000 | 401C283M075EE8 | 12.40 | 6.70 | 21.80 | 25.70 | 1 3/4 X 5 1/8 |
| 31000 | 401C313M075BD8 | 10.60 | 6.20 | 22.30 | 28.30 | 2 X 4 5/8 |
| 33000 | 401C333M075EF8 | 12.80 | 6.20 | 24.30 | 28.40 | 1 3/4 X 5 5/8 |
| 37000 | 401C373M075BE8 | 9.30 | 5.60 | 24.40 | 30.80 | 2 X 5 1/8 |
| 41000 | 401C413M075BF8 | 8.60 | 5.20 | 26.20 | 32.90 | 2 X 5 5/8 |
| 100 Vdc (140 Vdc Surge) | | | | | | |
| 1400 | 401C142M100AK8 | 118.00 | 34.70 | 4.30 | 6.20 | 1 3/8 X 1 5/8 |
| 2200 | 401C222M100AA8 | 73.10 | 20.90 | 5.90 | 8.50 | 1 3/8 X 2 1/8 |
| 3500 | 401C352M100AH8 | 46.50 | 14.00 | 7.50 | 10.60 | 1 3/8 X 2 5/8 |
| 4100 | 401C412M100EA8 | 44.70 | 17.50 | 8.00 | 10.30 | 1 3/4 X 2 1/8 |
| 4600 | 401C462M100AB8 | 36.00 | 11.00 | 9.10 | 12.90 | 1 3/8 X 3 1/8 |
| 5300 | 401C532M100BA8 | 37.50 | 16.50 | 8.20 | 11.90 | 2 X 2 1/8 |
| 5700 | 401C572M100AJ8 | 29.60 | 9.20 | 10.50 | 14.70 | 1 3/8 X 3 5/8 |
| 6000 | 401C602M100EH8 | 31.30 | 12.40 | 10.20 | 13.10 | 1 3/4 X 2 5/8 |
| 6800 | 401C682M100AC8 | 25.30 | 8.10 | 11.90 | 16.50 | 1 3/8 X 4 1/8 |
| 7500 | 401C752M100BH8 | 26.30 | 11.70 | 10.60 | 15.30 | 2 X 2 5/8 |
| 7900 | 401C792M100EB8 | 22.20 | 7.20 | 13.20 | 18.10 | 1 3/8 X 4 5/8 |
| 7900 | 401C792M100AD8 | 24.20 | 9.70 | 12.50 | 15.90 | 1 3/4 X 3 1/8 |
| 9000 | 401C902M100AE8 | 19.90 | 6.60 | 14.50 | 19.80 | 1 3/8 X 5 1/8 |
| 9700 | 401C972M100EJ8 | 19.90 | 8.10 | 14.10 | 18.00 | 1 3/4 X 3 5/8 |
| 10000 | 401C103M100BB8 | 20.40 | 9.20 | 12.60 | 18.20 | 2 X 3 1/8 |
| 10000 | 401C103M100AF8 | 18.10 | 6.20 | 15.80 | 21.40 | 1 3/8 X 5 5/8 |
| 12000 | 401C123M100BJ8 | 15.80 | 6.90 | 16.30 | 23.60 | 2 X 4 1/8 |
| 12000 | 401C123M100EC8 | 17.00 | 7.00 | 15.80 | 20.00 | 1 3/4 X 4 1/8 |
| 12000 | 401C123M100BC8 | 16.90 | 7.60 | 15.50 | 22.30 | 2 X 3 5/8 |

Type 401C -55 °C to 105 °C Low-ESR, Wide Temperature Grade

| Cap. (µF) | Catalog Part Number | ESR Max. 25 °C | | Ripple Amps, 85 °C | | Nominal Size D X L (in) |
|------------------------------------|------------------------|-------------------|----------------|-----------------------|---------------|----------------------------------|
| | | 120 Hz (mΩ) | 20 kHz (mΩ) | 120 Hz (A) | 20 kHz (A) | |
| 13000 | 401C133M100ED8 | 14.90 | 6.20 | 17.60 | 22.20 | 1 3/4 X 4 5/8 |
| 15000 | 401C153M100BD8 | 13.40 | 5.70 | 19.60 | 24.60 | 1 3/4 X 5 1/8 |
| 15000 | 401C153M100EE8 | 13.60 | 6.30 | 17.90 | 25.60 | 2 X 4 5/8 |
| 17000 | 401C173M100EF8 | 13.80 | 5.30 | 21.80 | 27.20 | 1 3/4 X 5 5/8 |
| 18000 | 401C183M100BE8 | 11.80 | 5.50 | 19.80 | 28.10 | 2 X 5 1/8 |
| 20000 | 401C203M100BF8 | 10.80 | 5.10 | 21.40 | 30.30 | 2 X 5 5/8 |
| 150 Volts (200 Volts Surge) | | | | | | |
| 710 | 401C711M150AK8 | 342.00 | 245.00 | 2.60 | 3.60 | 1 3/8 X 1 5/8 |
| 1100 | 401C112M150AA8 | 228.00 | 164.00 | 3.70 | 5.00 | 1 3/8 X 2 1/8 |
| 1500 | 401C152M150AH8 | 159.00 | 114.00 | 4.50 | 6.30 | 1 3/8 X 2 5/8 |
| 1700 | 401C172M150EA8 | 145.00 | 101.00 | 5.30 | 7.10 | 1 3/4 X 2 1/8 |
| 1900 | 401C192M150AB8 | 122.00 | 87.20 | 5.50 | 7.70 | 1 3/8 X 3 1/8 |
| 2500 | 401C252M150AJ8 | 112.00 | 78.80 | 7.00 | 8.60 | 2 X 2 1/8 |
| 2500 | 401C252M150BA8 | 98.80 | 71.00 | 6.40 | 8.90 | 1 3/8 X 3 5/8 |
| 2600 | 401C262M150EH8 | 100.00 | 70.30 | 6.70 | 9.00 | 1 3/4 X 2 5/8 |
| 2900 | 401C292M150AC8 | 83.40 | 59.90 | 7.40 | 10.20 | 1 3/8 X 4 1/8 |
| 3400 | 401C342M150AD8 | 80.20 | 57.00 | 8.90 | 11.00 | 2 X 2 5/8 |
| 3400 | 401C342M150EB8 | 77.00 | 54.00 | 8.30 | 11.10 | 1 3/4 X 3 1/8 |
| 3400 | 401C342M150BH8 | 72.30 | 52.00 | 8.20 | 11.30 | 1 3/8 X 4 5/8 |
| 3900 | 401C392M150AE8 | 63.90 | 46.00 | 9.20 | 12.40 | 1 3/8 X 5 1/8 |
| 4200 | 401C422M150EJ8 | 62.60 | 43.90 | 9.50 | 12.60 | 1 3/4 X 3 5/8 |
| 4400 | 401C442M150AF8 | 62.90 | 41.40 | 10.10 | 13.50 | 1 3/8 X 5 5/8 |
| 4500 | 401C452M150BB8 | 60.10 | 44.20 | 10.70 | 13.20 | 2 X 3 1/8 |
| 5000 | 401C502M150EC8 | 52.90 | 37.20 | 10.70 | 14.10 | 1 3/4 X 4 1/8 |
| 5500 | 401C552M150BJ8 | 48.60 | 36.30 | 12.90 | 16.20 | 2 X 3 5/8 |
| 5800 | 401C582M150ED8 | 45.90 | 32.30 | 12.00 | 15.80 | 1 3/4 X 4 5/8 |
| 6600 | 401C662M150BC8 | 41.10 | 31.20 | 13.70 | 17.60 | 2 X 4 1/8 |
| 6700 | 401C672M150EE8 | 40.60 | 28.60 | 13.50 | 17.50 | 1 3/4 X 5 1/8 |
| 7300 | 401C732M150BD8 | 38.00 | 28.00 | 14.70 | 19.20 | 2 X 4 5/8 |
| 7400 | 401C742M150EF8 | 36.50 | 25.70 | 15.10 | 19.30 | 1 3/4 X 5 5/8 |
| 8400 | 401C842M150BE8 | 34.10 | 25.20 | 15.70 | 20.90 | 2 X 5 1/8 |
| 9400 | 401C942M150BF8 | 31.00 | 23.00 | 16.80 | 22.60 | 2 X 5 5/8 |
| 200 Vdc (250 Vdc Surge) | | | | | | |
| 520 | 401C521M200AK8 | 370.00 | 233.00 | 2.50 | 3.50 | 1 3/8 X 1 5/8 |
| 810 | 401C811M200AA8 | 247.00 | 156.00 | 3.40 | 4.90 | 1 3/8 X 2 1/8 |
| 1100 | 401C112M200AH8 | 172.00 | 111.00 | 4.20 | 6.10 | 1 3/8 X 2 5/8 |
| 1300 | 401C132M200EA8 | 151.00 | 96.20 | 4.80 | 7.00 | 1 3/4 X 2 1/8 |
| 1500 | 401C152M200AB8 | 132.00 | 86.60 | 5.20 | 7.50 | 1 3/8 X 3 1/8 |
| 1800 | 401C182M200AJ8 | 124.00 | 80.80 | 6.60 | 8.40 | 2 X 2 1/8 |
| 1800 | 401C182M200BA8 | 107.00 | 71.80 | 6.00 | 8.80 | 1 3/8 X 3 5/8 |
| 1900 | 401C192M200EH8 | 105.00 | 72.40 | 6.20 | 8.90 | 1 3/4 X 2 5/8 |
| 2200 | 401C222M200AC8 | 90.20 | 61.80 | 6.90 | 10.10 | 1 3/8 X 4 1/8 |

| Cap. (µF) | Catalog Part Number | ESR Max. 25 °C | | Ripple Amps, 85 °C | | Nominal Size D X L (in) |
|--------------------------------|------------------------|-------------------|----------------|-----------------------|---------------|----------------------------------|
| | | 120 Hz (mΩ) | 20 kHz (mΩ) | 120 Hz (A) | 20 kHz (A) | |
| 2500 | 401C252M200EB8 | 89.00 | 58.10 | 8.40 | 10.80 | 2 X 2 5/8 |
| 2500 | 401C252M200AD8 | 81.80 | 54.40 | 7.70 | 11.00 | 1 3/8 X 4 5/8 |
| 2500 | 401C252M200BH8 | 80.40 | 55.60 | 7.60 | 10.90 | 1 3/4 X 3 1/8 |
| 2800 | 401C282M200AE8 | 75.40 | 49.20 | 8.60 | 12.00 | 1 3/8 X 5 1/8 |
| 3100 | 401C312M200EJ8 | 65.40 | 45.20 | 8.70 | 12.40 | 1 3/4 X 3 5/8 |
| 3300 | 401C332M200AF8 | 66.60 | 44.70 | 10.10 | 12.90 | 2 X 3 1/8 |
| 3300 | 401C332M200BB8 | 70.10 | 45.10 | 9.50 | 12.90 | 1 3/8 X 5 5/8 |
| 3700 | 401C372M200EC8 | 55.20 | 38.20 | 9.80 | 13.90 | 1 3/4 X 4 1/8 |
| 4000 | 401C402M200BJ8 | 53.90 | 36.40 | 12.00 | 15.90 | 2 X 3 5/8 |
| 4400 | 401C442M200ED8 | 47.80 | 33.20 | 11.00 | 15.60 | 1 3/4 X 4 5/8 |
| 4800 | 401C482M200BC8 | 45.50 | 30.80 | 12.90 | 17.30 | 2 X 4 1/8 |
| 4900 | 401C492M200EE8 | 42.30 | 29.40 | 12.40 | 17.50 | 1 3/4 X 5 1/8 |
| 5500 | 401C552M200EF8 | 42.10 | 27.40 | 14.00 | 18.90 | 2 X 4 5/8 |
| 5500 | 401C552M200BD8 | 38.00 | 26.40 | 13.90 | 19.50 | 1 3/4 X 5 5/8 |
| 6200 | 401C622M200BE8 | 37.70 | 24.30 | 14.80 | 20.60 | 2 X 5 1/8 |
| 7000 | 401C702M200BF8 | 34.30 | 21.90 | 15.50 | 22.20 | 2 X 5 5/8 |
| 250 Vdc (300 Vdc Surge) | | | | | | |
| 380 | 401C381M250AK8 | 510.00 | 285.00 | 2.20 | 3.30 | 1 3/8 X 1 5/8 |
| 610 | 401C611M250AA8 | 309.00 | 190.00 | 3.10 | 4.70 | 1 3/8 X 2 1/8 |
| 860 | 401C861M250AH8 | 215.00 | 132.00 | 3.90 | 6.00 | 1 3/8 X 2 5/8 |
| 960 | 401C961M250EA8 | 222.00 | 113.00 | 4.40 | 6.60 | 1 3/4 X 2 1/8 |
| 1100 | 401C112M250AB8 | 165.00 | 101.00 | 4.70 | 7.30 | 1 3/8 X 3 1/8 |
| 1300 | 401C132M250AJ8 | 134.00 | 82.50 | 5.50 | 8.30 | 1 3/8 X 3 5/8 |
| 1400 | 401C142M250EH8 | 149.00 | 91.20 | 5.90 | 8.30 | 2 X 2 1/8 |
| 1400 | 401C142M250BA8 | 154.00 | 78.60 | 5.60 | 8.50 | 1 3/4 X 2 5/8 |
| 1700 | 401C172M250AC8 | 101.00 | 62.40 | 6.90 | 10.30 | 1 3/8 X 4 5/8 |
| 1700 | 401C172M250AD8 | 100.00 | 62.20 | 6.60 | 10.00 | 1 3/8 X 4 1/8 |
| 1800 | 401C182M250EB8 | 118.00 | 60.40 | 6.90 | 10.40 | 1 3/4 X 3 1/8 |
| 1900 | 401C192M250BH8 | 103.00 | 63.30 | 7.60 | 10.60 | 2 X 2 5/8 |
| 2000 | 401C202M250AE8 | 88.80 | 54.90 | 7.70 | 11.20 | 1 3/8 X 5 1/8 |
| 2300 | 401C232M250EJ8 | 79.30 | 49.20 | 8.60 | 12.20 | 1 3/8 X 5 5/8 |
| 2300 | 401C232M250AF8 | 96.00 | 49.10 | 7.90 | 11.80 | 1 3/4 X 3 5/8 |
| 2500 | 401C252M250BB8 | 79.30 | 48.70 | 9.10 | 12.70 | 2 X 3 1/8 |
| 2800 | 401C282M250EC8 | 81.00 | 41.50 | 8.90 | 13.30 | 1 3/4 X 4 1/8 |
| 3000 | 401C302M250BJ8 | 64.50 | 39.70 | 11.00 | 15.70 | 2 X 3 5/8 |
| 3100 | 401C312M250ED8 | 70.20 | 36.00 | 10.10 | 14.90 | 1 3/4 X 4 5/8 |
| 3600 | 401C362M250EE8 | 62.00 | 31.90 | 11.30 | 16.70 | 1 3/4 X 5 1/8 |
| 3700 | 401C372M250BC8 | 54.50 | 33.60 | 11.90 | 17.20 | 2 X 4 1/8 |
| 3900 | 401C392M250EF8 | 55.60 | 28.60 | 12.70 | 18.60 | 1 3/4 X 5 5/8 |
| 4200 | 401C422M250BD8 | 47.30 | 29.20 | 12.80 | 18.70 | 2 X 4 5/8 |
| 4800 | 401C482M250BE8 | 41.90 | 25.90 | 13.60 | 20.00 | 2 X 5 1/8 |
| 5300 | 401C532M250BF8 | 37.60 | 23.30 | 14.40 | 21.20 | 2 X 5 5/8 |