

BPA

+85°C Non-Polar Axial Lead Aluminum Electrolytic Capacitors



For all applications with unknown/reversing polarity

FEATURES

- Audio Coupling
- Crossover Networks
- Capacitance range: .47 μ F to 1000 μ F
- Voltage range: 16 WVDC to 100 WVDC

SPECIFICATIONS

| | | | | | | | | | | | | | | | | |
|-----------------------------------|--|---|-----|------|------|------|------|------------------|-----|-----|-----|--|--|--|--|--|
| Capacitance Tolerance | | $\pm 20\%$ at 120Hz, 25°C | | | | | | | | | | | | | | |
| Operating Temperature Range | | -40°C to +85°C | | | | | | | | | | | | | | |
| Dissipation Factor 120Hz, 25°C | WVDC | 16 | 25 | 50 | 100 | | | | | | | | | | | |
| | $\tan \delta$ | .22 | .20 | .14 | .1 | | | | | | | | | | | |
| Leakage Current | WVDC | 100 WVDC | | | | | | | | | | | | | | |
| | Time | 5 minutes | | | | | | | | | | | | | | |
| | | < .05 CV or 3 μ A whichever is greater | | | | | | | | | | | | | | |
| Impedance Ratio 120Hz | WVDC | 16 | 25 | 50 | 100 | | | | | | | | | | | |
| | -25°C/20°C | 2 | 2 | 2 | 2 | | | | | | | | | | | |
| | -40°C/20°C | 6 | 5 | 4 | 3 | | | | | | | | | | | |
| Long Life | 2,000 hours at +85°C with rated voltage reversing polarity every 250 hours | | | | | | | | | | | | | | | |
| | Capacitance change Dissipation factor Leakage current | < 20% of initial measured value <200% of initial specified value <Initial specified value | | | | | | | | | | | | | | |
| Shelf Life | 1000 hours at + 85°C with no voltage applied. Units will meet load life specification | | | | | | | | | | | | | | | |
| Ripple Current Multipliers | | Frequency (Hz) | | | | | | Temperature (°C) | | | | | | | | |
| | Capacitance (μ F) | 50 | 120 | 400 | 1K | 10K | 100K | +85 | +70 | +60 | +45 | | | | | |
| | $C \leq 10$ | .72 | 1.0 | 1.25 | 1.45 | 1.65 | 1.7 | 1.0 | 1.3 | 1.5 | 1.8 | | | | | |
| | $10 < C \leq 100$ | .75 | 1.0 | 1.19 | 1.36 | 1.53 | 1.57 | 1.0 | 1.3 | 1.5 | 1.8 | | | | | |
| | $100 < C \leq 1000$ | .79 | 1.0 | 1.15 | 1.30 | 1.45 | 1.49 | 1.0 | 1.3 | 1.5 | 1.8 | | | | | |

Aluminum Electrolytic

SPECIAL ORDER OPTIONS

(See Pages 33 thru 37)

- Special tolerances: $\pm 10\%$ (K), -10% + 30% (Q)
- Tape and Reel
- Polyester Sleeve
- Epoxy end seal



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STANDARD PART LISTING

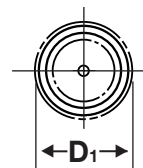
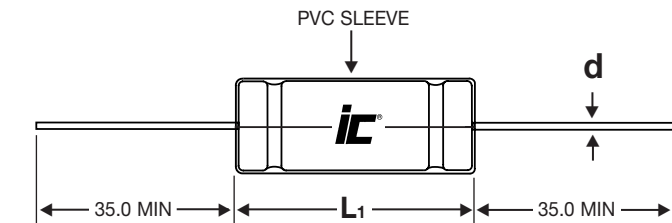
| Capacitance (μF) | WVDC | IC [®] PART NUMBER | Maximum ESR Ω 120Hz, +20°C | Maximum RMS Ripple Current (mA) 120Hz, +85°C | Dimension D x L (mm) |
|------------------|------|-----------------------------|-------------------------------|---|----------------------|
| 0.47 | 50 | 474BPA050M | 493.832 | 13 | 6x16 |
| 1 | 50 | 105BPA050M | 232.101 | 19 | 6x16 |
| 1 | 100 | 105BPA100M | 165.786 | 25 | 6x16 |
| 2.2 | 50 | 225BPA050M | 105.500 | 30 | 6x16 |
| 2.2 | 100 | 225BPA100M | 75.357 | 36 | 6x16 |
| 3.3 | 50 | 335BPA050M | 70.334 | 37 | 6x16 |
| 3.3 | 100 | 335BPA100M | 50.238 | 46 | 6x16 |
| 4.7 | 50 | 475BPA050M | 49.383 | 46 | 6x16 |
| 4.7 | 100 | 475BPA100M | 35.274 | 55 | 6x16 |
| 10 | 50 | 106BPA050M | 23.210 | 68 | 6x16 |
| 10 | 100 | 106BPA100M | 16.579 | 92 | 8x19 |
| 15 | 25 | 156BPA025M | 22.105 | 73 | 6x16 |
| 15 | 50 | 156BPA050M | 15.473 | 98 | 8x16 |
| 22 | 25 | 226BPA025M | 15.071 | 88 | 6x16 |
| 22 | 50 | 226BPA050M | 10.550 | 120 | 8x16 |
| 22 | 100 | 226BPA100M | 7.536 | 155 | 10x19 |
| 33 | 25 | 336BPA025M | 10.048 | 120 | 8x16 |
| 33 | 50 | 336BPA050M | 7.033 | 145 | 8x19 |
| 33 | 100 | 336BPA100M | 5.024 | 210 | 10x24 |
| 47 | 16 | 476BPA016M | 7.760 | 110 | 6x16 |
| 47 | 25 | 476BPA025M | 7.055 | 140 | 8x16 |

| Capacitance (μF) | WVDC | IC [®] PART NUMBER | Maximum ESR Ω 120Hz, +20°C | Maximum RMS Ripple Current (mA) 120Hz, +85°C | Dimension D x L (mm) |
|------------------|------|-----------------------------|-------------------------------|---|----------------------|
| 47 | 50 | 476BPA050M | 4.938 | 200 | 10x19 |
| 47 | 100 | 476BPA100M | 3.527 | 285 | 12.5x27 |
| 68 | 16 | 686BPA016M | 5.364 | 155 | 8x16 |
| 68 | 25 | 686BPA025M | 4.876 | 204 | 10x19 |
| 68 | 50 | 686BPA050M | 3.413 | 260 | 10x24 |
| 100 | 16 | 107BPA016M | 3.647 | 175 | 8x19 |
| 100 | 25 | 107BPA025M | 3.316 | 235 | 10x19 |
| 100 | 50 | 107BPA050M | 2.321 | 325 | 10x24 |
| 100 | 100 | 107BPA100M | 1.658 | 500 | 16x34 |
| 150 | 25 | 157BPA025M | 2.210 | 320 | 10x19 |
| 220 | 16 | 227BPA016M | 1.658 | 290 | 10x19 |
| 220 | 25 | 227BPA025M | 1.507 | 390 | 10x24 |
| 220 | 50 | 227BPA050M | 1.055 | 600 | 12.5x31 |
| 330 | 16 | 337BPA016M | 1.105 | 450 | 10x24 |
| 330 | 25 | 337BPA025M | 1.005 | 555 | 12.5x27 |
| 330 | 50 | 337BPA050M | 0.703 | 730 | 16x34 |
| 470 | 16 | 477BPA016M | 0.776 | 565 | 10x30 |
| 470 | 25 | 477BPA025M | 0.705 | 665 | 12.5x31 |
| 470 | 50 | 477BPA050M | 0.494 | 860 | 16x39 |
| 1000 | 16 | 108BPA016M | 0.365 | 950 | 12.5x31 |

PHYSICAL DIMENSIONS

| WVDC (SV) μF | 16 (20) | 25 (32) | 50 (63) | 100 (125) |
|-----------------|---------|---------|---------|-----------|
| 0.47 | | | 6x16 | |
| 1.0 | | | 6x16 | 6x16 |
| 2.2 | | | 6x16 | 6x16 |
| 3.3 | | | 6x16 | 6x16 |
| 4.7 | | | 6x16 | 6x16 |
| 10 | | | 6x16 | 8x19 |
| 15 | | 6x16 | 8x16 | |
| 22 | | 6x16 | 8x16 | 10x19 |
| 33 | | 8x16 | 8x19 | 10x24 |
| 47 | 6x16 | 8x16 | 10x19 | 12.5x27 |
| 68 | 8x16 | 10x19 | 10x24 | |
| 100 | 8x19 | 10x19 | 10x24 | 16x34 |
| 150 | | 10x19 | | |
| 220 | 10x19 | 10x24 | 12.5x31 | |
| 330 | 10x24 | 12.5x27 | 16x34 | |
| 470 | 10x30 | 12.5x31 | 16x39 | |
| 1000 | 12.5x31 | | | |

DxL(mm)



LEAD INFORMATION VS. CASE DIAMETER

| D | 6.0 | 8.0 | 10.0 | 12.5 | 16.0 |
|---|-----|-----|------|------|------|
| d | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |

D₁ = D ± .5mm

L₁ = L + 2.0mm Max.