



Polypropylene Film Capacitors

Radial Leded for Power Semiconductor Circuits



FEATURES

High Pulse Currents - High voltage

APPLICATIONS

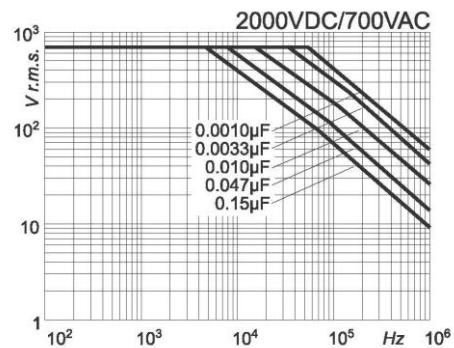
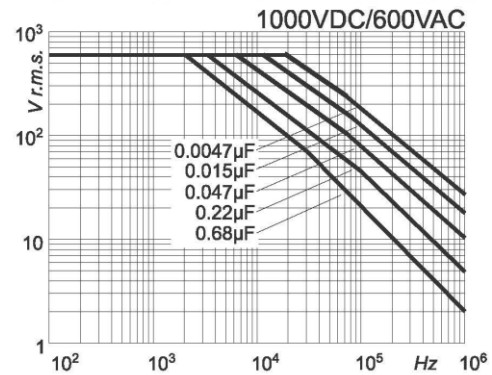
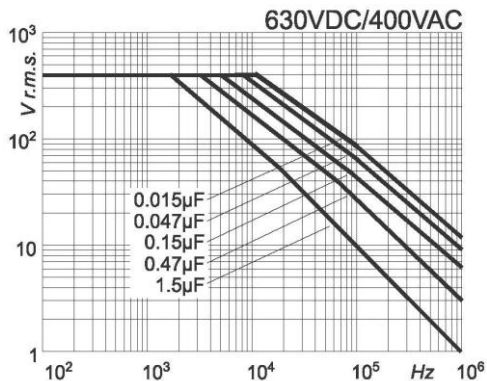
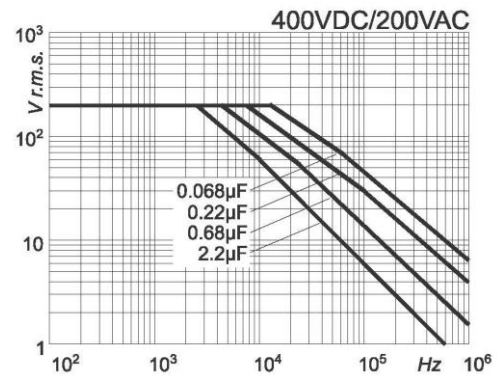
Power Semiconductor Circuits - SCR Commutation
Ballast controls - Switching Power Supplies

| | | | | | | | |
|--|---|-------------------|------------|---|--|-----------------|-------------|
| Operating Temperature Range | -55°C to +105°C | | | | | | |
| Capacitance Tolerance | ±10% at 1 kHz, 25°C +5% optional | | | | | | |
| AC voltage (50/60 Hz) | WVDC | 250 | 400 | 630 | 1000 | 1600 | 2000 |
| | VAC | 160 | 200 | 400 | 630 | 650 | 700 |
| For T>+85°C , The voltage (DC/AC) must be decreased by (1.5/2.25)% per °C | | | | | | | |
| Dissipation Factor (MAX) 25°C | Frequency (kHz) | C<0.1uF | | 0.1uF<C<1uF | | C>1uF | |
| | 1 | 0.05% | | 0.04% | | 0.05% | |
| | 10 | 0.05% | | 0.06% | | - | |
| | 100 | 0.16% | | - | | - | |
| Insulation Resistance @25°C (<70% RH) for 1 minute at 100VDC applied | Capacitance | | | Insulation Resistance | | | |
| | <0.33µF | | | 100000 MΩ | | | |
| | >0.33µF | | | 30000 MΩxµF | | | |
| Self Inductance | <1 nano-Henry per mm of lead spacing | | | | | | |
| Capacitance Drift Factor | <0.5% after 2 years at 40°C | | | | | | |
| Load Life | 2000 Hours, +85C with 125% of rated voltage | | | | | | |
| | Capacitance Change | | | ≤1% of initially measured value | | | |
| | Dissipation Factor | | | ≤0.001 at 10kHz and 25°C for C≤1uF ≤0.001 at 1kHz and 25°C for C>1uF | | | |
| | Insulation Resistance | | | ≥50% of maximum specified value | | | |
| Reliability (0.5xRated Voltage, 40°C) 1 FIT=1 failure/1 billion component hours | 2 Fit, VDC<400 WVDC 1 Fit, VDC>400 WVDC | | | | | | |
| | Capacitance Change | | | ≤10% of initially measured value | | | |
| | Dissipation Factor | | | ≤200% of initially specified value | | | |
| | Insulation Resistance | | | ≥50% of maximum specified value | | | |
| Damp Heat test | 56 days at 40°C with 90 to 95%RH, +40°C and no voltage applied | | | | | | |
| | Capacitance Change | | | ≤5% of initially measured value | | | |
| | Dissipation Factor | | | ≤0.005 at 1kHz and 25°C | | | |
| | Insulation Resistance | | | ≥50% of maximum specified value | | | |
| Self Inductance | <1 nano-Henry per mm of lead spacing | | | | | | |
| Capacitance Drift Factor | <0.5% after 2 years at 40°C | | | | | | |
| Capacitance Temperature Coefficient | -200 ppm/°C, ±100ppm/°C | | | | | | |
| Dielectric Strength | Terminal to Terminal | | | | Terminal to case | | |
| | 160% of rated VDC or 150% VAC applied for 2 Seconds and 25°C | | | | 3kVAC @ 50/60 Hz applied between terminals and case for 60 seconds at 25°C | | |
| Dielectric Construction | Polypropylene Metallized film | | | | | | |
| Coating | Flame Retardant epoxy resin (UL94V0) | | | | | | |
| Leads | Lead free tinned copper leads | | | | | | |



| | | | | |
|----|---------|---------|--------|--------|
| L | 18 | 26.5 | 32 | 42.5 |
| S | 15 | 22.5 | 27.5 | 37.5 |
| d | 0.8 | 0.8 | 0.8 | 1.2 |
| LL | 5.0±1.0 | 5.0±1.0 | 30±5.0 | 30±5.0 |

Permissible (sinusoidal) AC voltage versus frequency for a temperature rise of 10°C
Not for across the line applications



PPB

High Voltage Pulse Radial Lead Snubber

| Capacitance (μF) | WVDC | IC PART NUMBER | dv/dt (v/μ sec.) | Dims LxHxT (mm) | S (MM) | d (MM) |
|------------------|------|----------------|------------------|-----------------|--------|--------|
| 0.001 | 2000 | 102PPB202K | 6200 | 26.5x15x6 | 22.5 | 0.8 |
| 0.001 | 2000 | 102PPB202KE | 9000 | 18x11x5 | 15 | 0.8 |
| 0.0015 | 2000 | 152PPB202KE | 9000 | 18x11x5 | 15 | 0.8 |
| 0.0022 | 1600 | 222PPB162K | 7500 | 18x11x5 | 15 | 0.8 |
| 0.0022 | 2000 | 222PPB202KE | 9000 | 18x12x6 | 15 | 0.8 |
| 0.0033 | 1000 | 332PPB102K | 5500 | 18x11x5 | 15 | 0.8 |
| 0.0033 | 1600 | 332PPB162K | 7500 | 18x12x6 | 15 | 0.8 |
| 0.0033 | 2000 | 332PPB202K | 6200 | 26.5x15x6 | 22.5 | 0.8 |
| 0.0033 | 2000 | 332PPB202KB | 9000 | 18x13.5x7.5 | 15 | 0.8 |
| 0.0047 | 630 | 472PPB630K | 3300 | 18x11x5 | 15 | 0.8 |
| 0.0047 | 1000 | 472PPB102K | 5500 | 18x11x5 | 15 | 0.8 |
| 0.0047 | 1600 | 472PPB162K | 7500 | 18x13.5x7.5 | 15 | 0.8 |
| 0.0047 | 2000 | 472PPB202K | 6200 | 26.5x15x6 | 22.5 | 0.8 |
| 0.0047 | 2000 | 472PPB202KB | 9000 | 18x14.5x8.5 | 15 | 0.8 |
| 0.0068 | 630 | 682PPB630K | 3300 | 18x11x5 | 15 | 0.8 |
| 0.0068 | 1000 | 682PPB102K | 5500 | 18x11x5 | 15 | 0.8 |
| 0.0068 | 1600 | 682PPB162K | 7500 | 18x14.5x8.5 | 15 | 0.8 |
| 0.0068 | 2000 | 682PPB202K | 6200 | 26.5x15x6 | 22.5 | 0.8 |
| 0.0068 | 2000 | 682PPB202KB | 9000 | 18x16x10 | 15 | 0.8 |
| 0.01 | 630 | 103PPB630K | 3300 | 18x11x5 | 15 | 0.8 |
| 0.01 | 1000 | 103PPB102K | 2500 | 26.5x15x6 | 22.5 | 0.8 |
| 0.01 | 1000 | 103PPB102KE | 6200 | 18x12x6 | 15 | 0.8 |
| 0.01 | 1600 | 103PPB162KB | 7500 | 18x16x10 | 15 | 0.8 |
| 0.01 | 1600 | 103PPB162K | 3800 | 26.5x15x6 | 22.5 | 0.8 |
| 0.01 | 2000 | 103PPB202K | 6200 | 26.5x17x8.5 | 22.5 | 0.8 |
| 0.015 | 630 | 153PPB630K | 3300 | 18x11x5 | 15 | 0.8 |
| 0.015 | 1000 | 153PPB102K | 2600 | 26.5x15x6 | 22.5 | 0.8 |
| 0.015 | 1000 | 153PPB102KB | 5500 | 18x13.5x7.5 | 15 | 0.8 |
| 0.015 | 1600 | 153PPB162K | 3800 | 26.5x16x7 | 22.5 | 0.8 |
| 0.015 | 2000 | 153PPB202K | 6200 | 26.5x18.5x10 | 22.5 | 0.8 |
| 0.022 | 630 | 223PPB630K | 3300 | 18x12x6 | 15 | 0.8 |
| 0.022 | 1000 | 223PPB102K | 2600 | 26.5x15x6 | 22.5 | 0.8 |
| 0.022 | 1000 | 223PPB102KB | 5500 | 18x14.5x8.5 | 15 | 0.8 |
| 0.022 | 1600 | 223PPB162K | 3800 | 26.5x17x8.5 | 22.5 | 0.8 |
| 0.022 | 2000 | 223PPB202K | 4200 | 32x20x11 | 27.5 | 0.8 |
| 0.022 | 2000 | 223PPB202KG | 6200 | 26.5x22x13 | 22.5 | 0.8 |
| 0.033 | 400 | 333PPB400K | 910 | 18x11x5 | 15 | 0.8 |
| 0.033 | 630 | 333PPB630K | 3300 | 18x13.5x7.5 | 15 | 0.8 |
| 0.033 | 1000 | 333PPB102K | 2600 | 26.5x16x7 | 22.5 | 0.8 |
| 0.033 | 1600 | 333PPB162K | 3800 | 26.5x18.5x10 | 22.5 | 0.8 |
| 0.033 | 2000 | 333PPB202K | 4200 | 32x22x13 | 27.5 | 0.8 |
| 0.047 | 250 | 473PPB250K | 560 | 18x11x5 | 15 | 0.8 |
| 0.047 | 400 | 473PPB400K | 910 | 18x12x6 | 15 | 0.8 |
| 0.047 | 630 | 473PPB630K | 2050 | 26.5x15x6 | 22.5 | 0.8 |
| 0.047 | 630 | 473PPB630KB | 3300 | 18x16x10 | 15 | 0.8 |
| 0.047 | 1000 | 473PPB102K | 2600 | 26.5x17x8.5 | 22.5 | 0.8 |
| 0.047 | 1600 | 473PPB162K | 2700 | 32x20x11 | 27.5 | 0.8 |
| 0.047 | 1600 | 473PPB162KG | 3800 | 26.5x22x13 | 22.5 | 0.8 |
| 0.047 | 2000 | 473PPB202K | 4200 | 32x24.5x15 | 27.5 | 0.8 |
| 0.068 | 250 | 683PPB250K | 560 | 18x12x6 | 15 | 0.8 |
| 0.068 | 400 | 683PPB400K | 910 | 18x13.5x7.5 | 15 | 0.8 |
| 0.068 | 630 | 683PPB630K | 2050 | 26.5x16x7 | 22.5 | 0.8 |
| 0.068 | 1000 | 683PPB102K | 2600 | 26.5x18.5x10 | 22.5 | 0.8 |
| 0.068 | 1600 | 683PPB162K | 2700 | 32x22x13 | 27.5 | 0.8 |
| 0.068 | 2000 | 683PPB202K | 4200 | 32x28x14 | 27.5 | 0.8 |
| 0.1 | 250 | 104PPB250K | 560 | 18x13.5x7.5 | 15 | 0.8 |
| 0.1 | 400 | 104PPB400K | 910 | 18x14.5x8.5 | 15 | 0.8 |

| Capacitance (μF) | WVDC | IC PART NUMBER | dv/dt (v/μ sec.) | Dims LxHxT (mm) | S (MM) | d (MM) |
|------------------|------|----------------|------------------|-----------------|--------|--------|
| 0.1 | 630 | 104PPB630K | 2050 | 26.5x17x8.5 | 22.5 | 0.8 |
| 0.1 | 1000 | 104PPB102K | 1850 | 32x20x11 | 27.5 | 0.8 |
| 0.1 | 1000 | 104PPB102KG | 2600 | 26.5x22x13 | 22.5 | 0.8 |
| 0.1 | 1600 | 104PPB162K | 2700 | 32x28x14 | 27.5 | 0.8 |
| 0.1 | 2000 | 104PPB202K | 2600 | 42.5x28x17 | 37.5 | 1 |
| 0.1 | 2000 | 104PPB202KB | 4200 | 32x33x18 | 27.5 | 1 |
| 0.15 | 250 | 154PPB250K | 560 | 18x14.5x8.5 | 15 | 0.8 |
| 0.15 | 400 | 154PPB400K | 520 | 26.5x16x7 | 22.5 | 0.8 |
| 0.15 | 400 | 154PPB400KE | 910 | 18x16x10 | 15 | 0.8 |
| 0.15 | 630 | 154PPB630KG | 1500 | 26.5x20x11 | 22.5 | 0.8 |
| 0.15 | 630 | 154PPB630K | 1500 | 32x20x11 | 27.5 | 0.8 |
| 0.15 | 1000 | 154PPB102K | 1850 | 32x22x13 | 27.5 | 0.8 |
| 0.15 | 1600 | 154PPB162K | 1700 | 42.5x28x17 | 37.5 | 1 |
| 0.15 | 1600 | 154PPB162KB | 2700 | 32x33x18 | 27.5 | 1 |
| 0.15 | 2000 | 154PPB202K | 2600 | 42.5x30x22 | 37.5 | 1 |
| 0.22 | 250 | 224PPB250K | 320 | 26.5x15x6 | 22.5 | 0.8 |
| 0.22 | 250 | 224PPB250KB | 560 | 18x16x10 | 15 | 0.8 |
| 0.22 | 400 | 224PPB400K | 520 | 26.5x18.5x10 | 22.5 | 0.8 |
| 0.22 | 630 | 224PPB630K | 1500 | 32x22x13 | 27.5 | 0.8 |
| 0.22 | 1000 | 224PPB102K | 1850 | 32x28x14 | 27.5 | 0.8 |
| 0.22 | 1600 | 224PPB162K | 1700 | 42.5x28x17 | 37.5 | 1 |
| 0.22 | 2000 | 224PPB202K | 2600 | 42.5x37x28 | 37.5 | 1 |
| 0.33 | 250 | 334PPB250K | 320 | 26.5x17x8.5 | 22.5 | 0.8 |
| 0.33 | 400 | 334PPB400K | 520 | 26.5x20x11 | 22.5 | 0.8 |
| 0.33 | 400 | 334PPB400KH | 400 | 32x17x9 | 27.5 | 0.8 |
| 0.33 | 630 | 334PPB630K | 1500 | 32x24.5x15 | 27.5 | 0.8 |
| 0.33 | 1000 | 334PPB102K | 1200 | 42.5x28x17 | 37.5 | 1 |
| 0.33 | 1000 | 334PPB102KB | 1850 | 32x33x18 | 27.5 | 1 |
| 0.33 | 1600 | 334PPB162K | 1700 | 42.5x30x22 | 37.5 | 1 |
| 0.47 | 250 | 474PPB250K | 320 | 26.5x18.5x10 | 22.5 | 0.8 |
| 0.47 | 400 | 474PPB400K | 400 | 32x22x13 | 27.5 | 0.8 |
| 0.47 | 400 | 474PPB400KG | 520 | 26.5x22x13 | 22.5 | 0.8 |
| 0.47 | 630 | 474PPB630KB | 1500 | 32x33x18 | 27.5 | 1 |
| 0.47 | 630 | 474PPB630K | 950 | 42.5x28x17 | 37.5 | 1 |
| 0.47 | 1000 | 474PPB102K | 1200 | 42.5x30x22 | 37.5 | 1 |
| 0.47 | 1600 | 474PPB162K | 1700 | 42.5x37x28 | 37.5 | 1 |
| 0.68 | 250 | 684PPB250K | 240 | 32x20x11 | 27.5 | 0.8 |
| 0.68 | 250 | 684PPB250KB | 320 | 26.5x20x11 | 22.5 | 0.8 |
| 0.68 | 400 | 684PPB400K | 400 | 32x24.5x15 | 27.5 | 0.8 |
| 0.68 | 630 | 684PPB630K | 950 | 42.5x28x17 | 37.5 | 1 |
| 0.68 | 1000 | 684PPB102K | 1200 | 42.5x37x28 | 37.5 | 1 |
| 1 | 250 | 105PPB250K | 240 | 32x20x11 | 27.5 | 0.8 |
| 1 | 250 | 105PPB250KG | 320 | 26.5x22x13 | 22.5 | 0.8 |
| 1 | 400 | 105PPB400KB | 400 | 32x33x18 | 27.5 | 1 |
| 1 | 400 | 105PPB400K | 280 | 42.5x28x17 | 37.5 | 1 |
| 1 | 630 | 105PPB630K | 950 | 42.5x30x22 | 37.5 | 1 |
| 1 | 1000 | 105PPB102K | 1200 | 42.5x37x28 | 37.5 | 1 |
| 1.5 | 250 | 155PPB250K | 240 | 32x24.5x15 | 27.5 | 0.8 |
| 1.5 | 400 | 155PPB400K | 280 | 42.5x28x17 | 37.5 | 1 |
| 1.5 | 630 | 155PPB630K | 950 | 42.5x37x28 | 37.5 | 1 |
| 2.2 | 250 | 225PPB250K | 240 | 32x28x14 | 27.5 | 0.8 |
| 2.2 | 250 | 225PPB250KB | 170 | 42.5x28x17 | 37.5 | 1 |
| 2.2 | 400 | 225PPB400K | 280 | 42.5x30x22 | 37.5 | 1 |
| 3.3 | 250 | 335PPB250K | 170 | 42.5x30x22 | 37.5 | 1 |
| 3.3 | 400 | 335PPB400K | 280 | 42.5x37x28 | 37.5 | 1 |
| 4.7 | 250 | 475PPB250K | 170 | 42.5x30x22 | 37.5 | 1 |
| 6.8 | 250 | 685PPB250K | 170 | 42.5x37x28 | 37.5 | 1 |