

# PPR

## Small Size Polypropylene Film Capacitors for High Pulse Current Applications



- Snubber Capacitor for Energy Conversion in Power Semiconductor Circuits.
- SCR Commutation
- TV Deflection Circuits
- SMPS Protection Circuits
- Electronic Ballasts
- High Voltage
- High Current
- High Pulse Current Applications

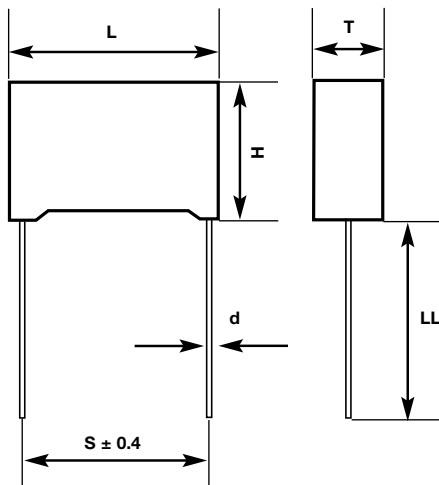
<b>Operating Temperature Range</b>		-55°C to +105°C				
<b>Capacitance Tolerance</b>		+/- 10% at 1kHz, 20°C				
<b>Rated Voltage</b>	WVDC	630	1000	1600	2000	
	VAC	400	600	650	700	
		DC: For T>85°C voltage must be rated by 1.25% for every °C above 85°C AC: For T>75°C voltage must be rated by 1.35% for every °C above 75°C				
<b>Dissipation Factor (max) at 20°C.</b>	Freq (kHz)	C≤0.1μF	0.1μF>C≤1μF	C>1μF		
	1	.03%	.03%	.04%		
	10	.05%	.06%	-		
	100	.15%	-	-		
<b>Insulation Resistance @20°C(&lt;70% RH) for 1 minute at 100VDC</b>	C≤0.33μF	≥100,000MΩ				
	C>0.33μF	≥30,000MΩ x μF				
<b>Dielectric Strength</b>		160% of rated VDC for 2 seconds at 20°C between leads				
<b>Load Life</b>		2000 hours at 85°C±2°C with 125% of rated voltage				
		Capacitance change	≤2% change from initial value			
		Dissipation Factor	≤0.1% at 10kHz and 25°C for C≤1μF ≤0.1% at 1kHz and 25°C for C>1μF			
		Insulation Resistance	≥50% of specified value			
<b>Self inductance</b>		<1nH/mm of capacitor lead spacing.				
<b>Capacitance drift</b>		<0.5% up to 40°C after 2 years				
<b>Temperature Coefficient</b>		-200ppm/°C +/- 100ppm/°C				
<b>Reliability</b> fit=1x10 <sup>9</sup> Failures/component hours. Applied Voltage=0.5xVDC Temperature=+40°C±2°C	≤1FIT					
	Capacitance change	≤10% change from initial value				
	Dissipation Factor	>2x initial specified value.				
	Insulation Resistance	<0.005x initial specified value.				
<b>Dielectric</b>		Polypropylene				
<b>Electrodes</b>		Vacuum deposited metal layers				
<b>Construction</b>		Extended double metallized carrier film, internal series connections and metallized film.				
<b>Leads</b>		Tinned copper leads.				
<b>Coating</b>		Solvent resistant plastic box (UL 94V-1) with epoxy end fills (UL 94V-0)				

## PHYSICAL DIMENSIONS

WVDC μF (VAC)	630 (400)	1,000 (600)	1,600 (650)	2,000 (700)
0.0022				18x11x5
0.0033			18x11x5	18x12x6
0.0047			18x11x5	18x13.5x7.5
0.0068			18x11x5	18x13.5x7.5
0.01		18x11x5	18x12x6	18x16x10 26.5x15x6
0.015		18x12x6	18x13.5x7.5	26.5x16x7
0.022	18x11x5	18x13.5x7.5	18x14.5x8.5 26.5x15x6	26.5x17x8.5 32x17x9
0.033	18x12x6	18x14.5x8.5 26.5x15x6	26.5x16x7	26.5x18.5x10 32x17x9
0.047	18x13.5x7.5	26.5x16x7	26.5x18.5x10 32x17x9	26.5x22x13 32x20x11
0.068	18x14.5x8.5 26.5x15x6	26.5x17x8.5	26.5x20x11 32x17x9	32x22x13
0.1	18x16x10 26.5x15x6	26.5x18.5x10 32x17x9	26.5x22x13 32x20x11	32x28x14
0.15	26.5x17x8.5 32x17x9	26.5x22x13 32x20x11	32x24.5x15	32x33x18 42.5x28x17
0.22	26.5x18.5x10 32x17x9	32x22x13	32x33x18	32x37x22 42.5x30x22
0.33	26.5x22x13 32x20x11	32x28x14	32x33x18 42.5x28x17	42.5x37x28
0.47	32x22x13	32x33x18	32x37x22 42.5x30x22	42.5x37x28
0.56				42.5x45x30
0.68	32x24.5x15	32x37x22 42.5x30x22	42.5x37x28	
1	32x33x18 42.5x28x17	42.5x37x28	42.5x45x30	
1.5	32x37x22 42.5x30x22	42.5x37x28		
1.8		42.5x45x30		
2.2	42.5x37x28			
3.3	42.5x45x30			
3.9	42.5x45x30			

Convert to inches, divide by 25.4

LxHxT (mm)



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

## STANDARD PART LISTING

Capacitance (µF)	WVDC	IC PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
0.0022	2000	222PPR202KE	7000	18x11x5
0.0033	1600	332PPR162KE	6000	18x11x5
0.0033	2000	332PPR202KE	7000	18x12x6
0.0047	1600	472PPR162KE	6000	18x11x5
0.0047	2000	472PPR202KE	7000	18x13.5x7.5
0.0068	1600	682PPR102KE	6000	18x11x5
0.0068	2000	682PPR202KE	7000	18x13.5x7.5
0.01	1000	103PPR102KE	3300	18x11x5
0.01	1600	103PPR102KE	6000	18x12x6
0.01	2000	103PPR202KE	7000	18x16x10
0.01	2000	103PPR202KG	3500	26.5x15x6
0.015	1000	153PPR102KG	3300	18x12x6
0.015	1600	153PPR162KE	6000	18x13.5x7.5
0.015	2000	153PPR202KG	3500	26.5x16x7
0.022	630	223PPR630KE	2500	18x11x5
0.022	1000	223PPR102KE	3300	18x13.5x7.5
0.022	1600	223PPR162KE	6000	18x14.5x8.5
0.022	1600	223PPR162KG	3000	26.5x15x6
0.022	2000	223PPR202KG	3500	26.5x17x8.5
0.022	2000	223PPR202KH	2300	32x17x9
0.033	630	333PPR630KE	2500	18x12x6
0.033	1000	333PPR102KE	3300	18x14.5x8.5
0.033	1000	333PPR102KG	2100	26.5x15x6
0.033	1600	333PPR162KG	3000	26.5x16x7
0.033	2000	333PPR202KG	3500	26.5x18.5x10
0.033	2000	333PPR202KH	2300	32x17x9
0.047	630	473PPR630KE	2500	18x13.5x7.5
0.047	1000	473PPR102KG	2100	26.5x16x7
0.047	1600	473PPR162KG	3000	26.5x18.5x10
0.047	1600	473PPR162KH	2000	32x17x9
0.047	2000	473PPR202KG	3500	26.5x22x13
0.047	2000	473PPR202KH	2300	32x20x11
0.068	630	683PPR630KE	2500	18x14.5x8.5
0.068	630	683PPR630KG	1500	26.5x15x6
0.068	1000	683PPR102KG	2100	26.5x17x8.5
0.068	1600	683PPR162KG	3000	26.5x20x11
0.068	1600	683PPR162KH	2000	32x17x9
0.068	2000	683PPR202KH	2300	32x22x13
0.1	630	104PPR630KE	2500	18x16x10
0.1	630	104PPR630KG	1500	26.5x15x6
0.1	1000	104PPR102KG	2100	26.5x18.5x10
0.1	1000	104PPR102KH	1000	32x17x9
0.1	1600	104PPR162KG	3000	26.5x22x13

Capacitance (µF)	WVDC	IC PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
0.1	1600	104PPR162KH	2000	32x20x11
0.1	2000	104PPR202KH	2300	32x28x14
0.15	630	154PPR630KG	1500	26.5x17x8.5
0.15	630	154PPR630KH	900	32x17x9
0.15	1000	154PPR102KG	2100	26.5x22x13
0.15	1000	154PPR102KH	1000	32x20x11
0.15	1600	154PPR162KH	2000	32x24.5x15
0.15	2000	154PPR202KH	2300	32x33x18
0.15	2000	154PPR202KJ	1500	42.5x28x17
0.22	630	224PPR630KG	1500	26.5x18.5x10
0.22	630	224PPR630KH	900	32x17x9
0.22	1000	224PPR102KH	1000	32x22x13
0.22	1600	224PPR162KH	2000	32x33x18
0.22	2000	224PPR202KH	2300	32x37x22
0.22	2000	224PPR202KJ	1500	42.5x30x22
0.33	630	334PPR630KG	1500	26.5x22x13
0.33	630	334PPR630KH	900	32x20x11
0.33	1000	334PPR102KH	1000	32x28x14
0.33	1600	334PPR162KH	2000	32x33x18
0.33	1600	334PPR162KJ	1200	42.5x28x17
0.33	2000	334PPR202KJ	1500	42.5x37x28
0.47	630	474PPR630KH	900	32x22x13
0.47	1000	474PPR102KH	1000	32x33x18
0.47	1600	474PPR262KH	2000	32x37x22
0.47	1600	474PPR162KJ	1200	42.5x30x22
0.47	2000	474PPR202KJ	1500	42.5x37x28
0.68	630	684PPR630KH	900	32x24.5x13
0.56	2000	564PPR202KJ	1500	42.5x45x30
0.68	1000	684PPR102KH	1000	32x37x22
0.68	1000	684PPR102KJ	500	42.5x30x22
0.68	1600	684PPR162KJ	1200	42.5x37x28
1	630	105PPR630KH	900	32x33x18
1	630	105PPR630KJ	450	42.5x28x17
1	1000	105PPR102KJ	500	42.5x37x28
1	1600	105PPR162KJ	1200	42.5x45x30
1.5	630	155PPR630KH	900	32x37x22
1.5	630	155PPR630KJ	450	42.5x30x22
1.5	1000	155PPR102KJ	500	42.5x37x28
1.8	1000	185PPR102KJ	500	42.5x45x30
2.2	630	225PPR630KJ	450	42.5x37x28
3.3	630	335PPR630KJ	450	42.5x45x30
3.9	630	395PPR630KJ	450	42.5x45x30

## PERMISSIBLE AC VOLTAGE VS. FREQUENCY

