



Polypropylene Film Capacitors



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Why Buy From KEMET?

KEMET is your seamless, integrated, single source for capacitance solutions worldwide. With 95% of possible dielectric solutions, global availability, on-time delivery, plus full custom design services. One world. One source. One KEMET.

Features & Benefits

- Robust Construction for High Performance
- Very low dissipation factor (DF)
- Stable with frequency and temperature
- Excellent pulse handling capability
- 105°C and 125°C capability
- Self-healing single and double metallized parts (benign failure mode)

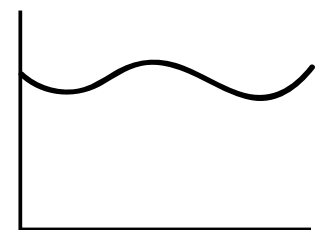
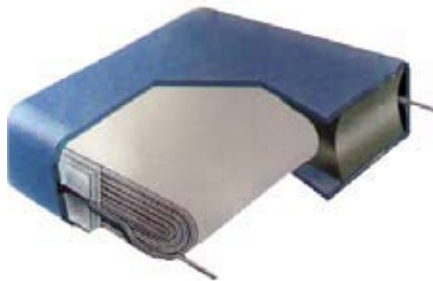
Customer Questions

- What is the annual requirement and start date of the project?
- What is the maximum ambient temperature?
- Questions for DC and Pulse Applications
 - What is the maximum DC voltage?
 - Are there pulses? If so, what is their risetime, peak voltage and frequency?
 - Is there ripple current? If so, what is the frequency and amplitude?
- Questions for A C Applications
 - What is the maximum AC voltage?
 - What is the maximum current?
 - What is the frequency?

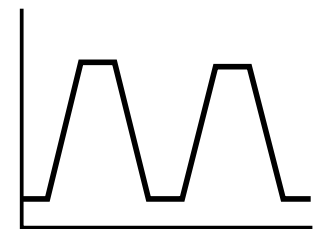
For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

Programs Supported

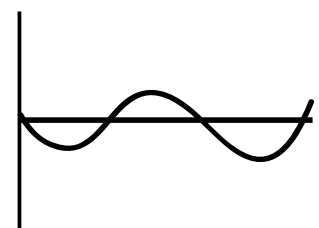
- Power supply
- Industrial equipment
- Audio equipment
- Lighting, electronic ballast
- Timing, sample and hold, integrators



Example DC application (filter)



Example DC application (snubber)



Example AC application (electronic ballast)



Polypropylene Film Capacitors



KEMET Products & Competition

Single Metallized Construction – Medium pulse and AC current capability

DC Volt min/max	AC Volt min/max	Max. μF (min/max volt)	Series	Max. Temp °C	Max. dV/dt (min/max volt)	Pitch Range (mm)	Self-healing?	Comments	Competition
160 630	90 250	4.7 μF 0.68 μF	A70	105	5 V/ μs 30 V/ μs	(axial)	Yes	DC or AC applications.	TDK-EPC, WIMA,
100 2000	63 700	27 μF 0.027 μF	PHE426	105	100 V/ μs 1500 V/ μs	5 to 37.5	Yes	DC or AC applications. For small cap values and tight tolerances, see also PFR (film/foil).	Vishay, Shinyei,
160 630	70 220	0.22 μF 0.018 μF	R79	105	100 V/ μs 600 V/ μs	5	Yes	DC or AC applications. For small cap values and tight tolerances, see also PFR (film/foil).	HJC, Faratronic
160 2000	90 700	33 μF 1 μF	R75	105	300 V/ μs 2500 V/ μs	7.5 to 37.5	Yes	Recommended for DC and pulse applications (including DC with ripple.) May be used with AC but also consider R74.	
250 630	160 220	56 μF 22 μF	JSP	125	125 V/ μs 250 V/ μs	22.5 to 37.5	Yes	Stacked construction for high temp and small size. See also R74 (including 125°C version) for AC applications.	
420 1000	220 275	22 μF 10 μF	R71	110	250 V/ μs 180V V/ μs	10 to 37.5	Yes	Optimized for power factor correction (PFC).	
420 630	220 275	0.47 μF 0.15 μF	PHE429	110	150 V/ μs 250 V/ μs	15	Yes	Optimized for power factor correction (PFC). Limited range. See also R71.	
	250 900	3.3 μF 0.47 μF	R74 R74 mini R74 125°C	105 125	2200 V/ μs 2500 V/ μs	10 to 37.5	Yes	Optimized for AC applications such as electronic ballast. 250 VAC pitch only 10–15. Mini: reduced size 600 VAC, 470 pF–18 nF. 125°C: 500 and 700 VAC, 680 pF–100 nF.	

Double Metallized Construction – High pulse and AC current capability

250 3000	180 1000	10 μF 0.033 μF	PHE450	105	2000 V/ μs 2500 V/ μs	7.5 to 37.5	Yes	DC or AC applications.	TDK-EPC, WIMA,
250 2000	180 700	15 μF 0.68 μF	R76	105	1100 V/ μs 9500 V/ μs	7.5 to 37.5	Yes	Recommended for DC and pulse applications (including DC with ripple.) May be used with AC, but also consider R77.	Vishay, Shinyei, HJC,
	250 900	0.1 μF 0.018 μF	R77	105	900 V/ μs 9500 V/ μs	15 to 27.5	Yes	Optimized for AC applications such as electronic ballast. For lower power applications, see R74 (single metallized).	Faratronic

Film/Foil Construction – Highest pulse and AC current capability

100 2000	63 500	330 nF 47 nF	A72	105	3000 V/ μs 27000 V/ μs	(Axial)	No	DC or AC applications. 100–400V in smaller range. See 630V for highest cap values.	TDK-EPC, WIMA,
63 1000	40 250	22 nF 1 nF	PFR	100	1000 V/ μs 1000 V/ μs	5	No	Recommended for small cap values (down to 100 pF) and tight tolerances to 1%. Best long-term stability.	Vishay, Shinyei, HJC,
100 2000	63 500	2.2 μF 0.22 μF	R73	105	2400 V/ μs 54000 V/ μs	15 to 37.5	No	DC or AC applications. For cost optimization, consider a metallized capacitor.	Faratronic
1600 2000	650 700	22 nF 3.3 nF	PHE448	105	15000 V/ μs 25000 V/ μs	15	No	DC or AC applications. Limited range, also see R73. For cost optimization consider a metallized capacitor.	