



Polypropylene Film Capacitors

The Capacitance Company
KEMET
CHARGED®

Why Choose KEMET

KEMET applies world-class service and quality to deliver industry-leading, high performance capacitance solutions worldwide. With 95% of possible dielectric solutions, KEMET offers the world's most complete line of surface mount and through-hole capacitor technologies across tantalum, ceramic, film, aluminum and paper dielectrics. One world. 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)

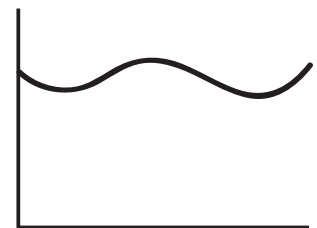
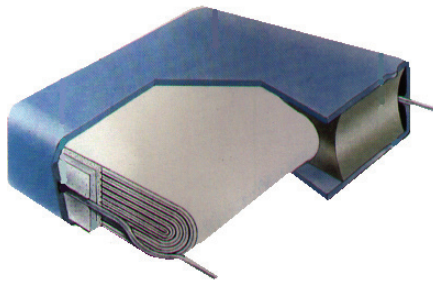
Product Checklist

- 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 AC 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

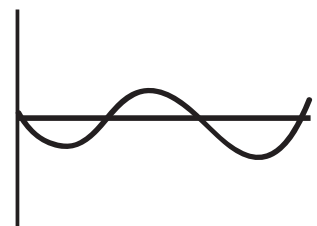
- Power supply
- Industrial equipment
- Audio equipment
- Lighting, electronic ballast
- Timing, sample and hold, integrators



Example DC application (filter)



Example DC application (snubber)



Example AC application (electronic ballast)



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KEMET Products

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 μs)	Pitch Range (mm)	Self- healing?	Comments
160 2500	90 900	56 μF 0.056 μF	F461-F464	105	300 V/ μs 4500 V/ μs	5 to 37.5	Yes	DC or AC applications. For higher temperatures, see R74 125°C. For low capacitance values and tight tolerances, see also PFR (film/foil).
160 630	90 250	4.7 μF 0.68 μF	A70	105	5 V/ μs 30 V/ μs	(Axial)	Yes	DC or AC applications.
420 1000	220 275	22 μF 10 μF	R71	110	250 V/ μs 180 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.
1600 2000	500 700	0.68 μF 0.1 μF	R74 125°C	125	6000 V/ μs 9500 V/ μs	10 to 22.5	Yes	Optimized for AC applications such as electronic ballast, where up to 125°C is required.

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.
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.
	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 F461-F464 (single metallized).

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.
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.
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
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.