Type UNL, DC Link and Filter Capacitors

High Capacitance, High Current, Board Mount



Constructed using a low-loss polypropylene film, the UNL series offers high ripple current capabilities and high capacitance values making them ideal for electrolytic bank replacement and high ripple current applications.

Highlights

Advantages over Electrolytics

- Exceptionally low ESR
- Up to 10 times the ripple current
- Non-polar
- Higher voltage ratings
- Dry construction no electrolyte
- Improved reliability

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Capacitance Range	4.7 to 100 μF				
Capacitance Tolerance	±10% (K) standard				
Rated Voltage	400 to 1500 Vdc				
Operating Temperature Range	–55 °C to 105 °C* *Full rated voltage at 85 °C - derate linearly to 50% rated at 105 °C				
Maximum rms Current	Check tables for values				
Test Voltage between Terminals @ 25 °C	125% rated DC voltage for 60 s				
Test Voltage between Terminals & Case @ 25 °C	3 kVac @ 50/60 Hz for 60 s				
Life Test	2,000 h @ 85 ℃, 125% rated voltage				
Life Expectancy	60,000 h @ 70 °C, rated voltage				
RoHS Compliant					

Dimensions

Specifications

5.1 mm 12.7 ±0.8 mm	2.54 ±0.8 mm
0.8 ±0.5 mm H ±0.5 mm	* Standard Long Pins: h = 7.6 mm 'S' Short Pins: h = 3.8 mm Pins are tapered 1.27 - 1.14 mm

Construction Details					
Case Material	Plastic UL94V-0				
Resin Material	Dry Resin UL94V-0				
Terminal Material	Tin Plated Brass				

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Part Numbering System

UNL 	7	W20 	к 	s 	-F
 Type	l Voltage	l Capacitance	 Tolerance	 Leads	l RoHS
UNL	4 = 400 Vdc	$W80=80\mu F$	$K = \pm 10\%$	S = Short Pins	Compliant
	5 = 500Vdc	$W100=100\mu F$		Blank = Long Pins	
	6 = 600 Vdc	$W30=30\mu F$			
	7 = 750 Vdc	$W50 = 50 \mu F$			
	8 = 800 Vdc	$W40=40\mu F$			
	9 = 900 Vdc	$W13P5 = 13.5 \mu F$			
	10 = 1000 Vdc	$W10=10\mu F$			
	12 = 1200 Vdc	$W7P5 = 7.5 \mu F$			
	15 = 1500 Vdc	$W4P7 = 4.7 \mu F$			

Ratings

NOTE: Other ratings, sizes and performance specifications are available. Contact us.

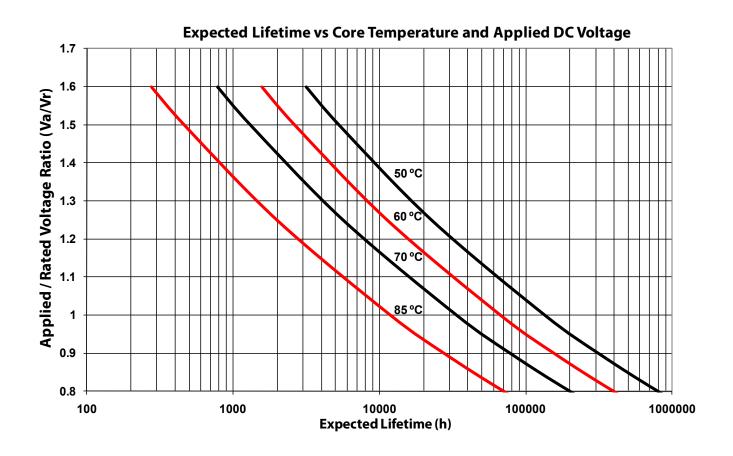
	Rated	Rated			Typical ESR		Current	Ripple Current @ 100 kHz		
Catalog Part Number*	Cap (μF)	Voltage (Vdc)	Dia. D (mm)	Height H (mm)	@ 100 kHz (mΩ)	dV/dt (V/μs)		25 °C (Arms)	50 °C (Arms)	75 °C (Arms)
UNL4W30K-F	30.0	400	35	53.7	6.0	30	900	24.2	19.4	14.6
UNL4W80K-F	80.0	400	50	63	5.0	25	2000	35.0	28.0	14.3
UNL5W35K-F	35.0	500	35	53.7	8.0	26	910	22.0	18.2	13.0
UNL5W100K-F	100.0	500	50	63	6.0	22	2200	31.8	25.4	13.2
UNL6W30K-F	30.0	600	35	53.7	9.0	30	900	20.7	17.0	12.0
UNL6W80K-F	80.0	600	50	63	6.5	25	2000	30.5	24.4	12.6
UNL7W20K-F	20.0	750	35	53.7	10.0	37	740	19.0	16.0	9.9
UNL7W50K-F	50.0	750	50	63	7.0	30	1500	29.4	23.5	12.0
UNL8W15K-F	15.0	800	35	53.7	10.0	42	630	18.8	15.0	9.8
UNL8W40K-F	40.0	800	50	63	7.5	35	1400	28.4	22.8	11.7
UNL9W13P5K-F	13.5	900	35	53.7	10.5	43	580	18.0	14.5	9.6
UNL9W35K-F	35.0	900	50	63	8.0	36	1260	27.5	22.0	11.3
UNL10W10K-F	10.0	1000	35	53.7	12.0	50	500	17.5	13.7	9.0
UNL10W25K-F	25.0	1000	50	63	8.5	40	1000	26.7	21.4	11.0
UNL12W7P5K-F	7.5	1200	35	53.7	13.5	60	450	16.0	12.0	8.4
UNL12W20K-F	20.0	1200	50	63	9.0	50	1000	26.0	20.7	10.7
UNL15W4P7K-F	4.7	1500	35	53.7	15.0	72	338	15.0	11.5	7.8
UNL15W13K-F	13.0	1500	50	63	10.0	60	780	24.6	19.7	10.1

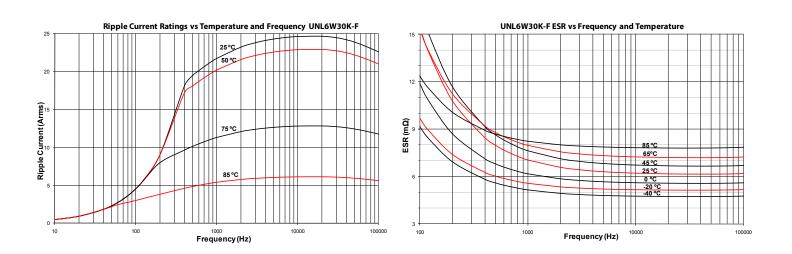
^{*}Add 'S' after 'K' for short pins

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Typical Performance Curves





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