

UP36-37 Series

Unlytic™ Miniature Series UP36/37 Unlytic™ Miniature Series

The type UP36/UP37 miniature Unlytic™ is the best choice for "Decoupling" in high-power converter designs.



FEATURES

- ~ Higher voltage ratings
- ~ Superior performance over temperature ranges -55°C to 105°C
- ~ Dry construction (no harmful electrolytes)
- ~ Non-polar
- ~ Voltage ratings convenient for European designs
- ~ Spade lug terminals for high current carrying capacity

STANDARD CONFIGURATION

- ~ UP36: Board standoff mount
- ~ UP37: Board feedthrough mount



SPECIFICATION SUMMARY

Capacitance Range

4.7µF to 35.0µF

Capacitance Tolerance

Standard capacitance tolerance is ± 10%.

Operating Temperature Range

-55°C to +105°C

Enclosure/ Construction

Voltage Rating

500VDC to 1500VDC

Quality Control

Capacitors are tested 100% for:

- ° Capacitance tolerance
- ° Dissipation Factor
- ° Dielectric withstanding voltage
- ° Insulation Resistance
- ° Equivalent Series Resistance (ESR)

Environmental

Parameter	Condition	Method
Vibration		
Immersion		
Shock		
Humidity		
Thermal Shock		

Reference MIL-STD-202

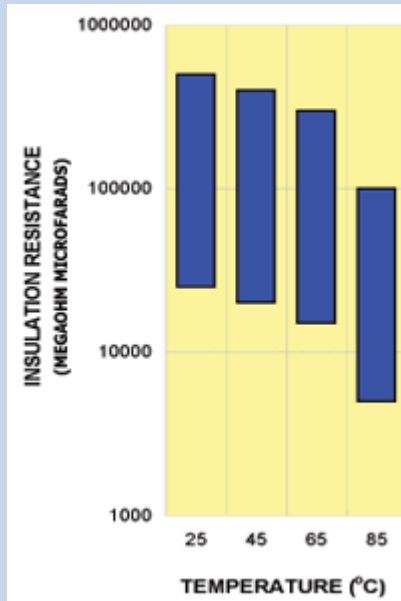


CHARACTERISTICS

Insulation Resistance

Temperature	25C	85C		
Megaohms x Microfarads	25,000	5,000		

Insulation Resistance



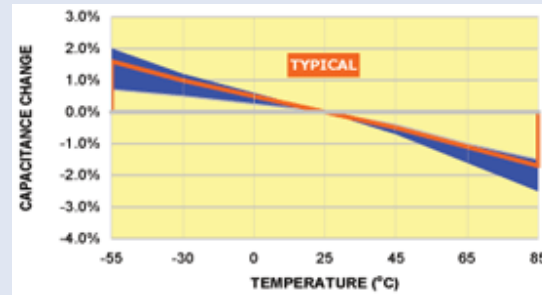
Dielectric Strength

Capacitors withstand a DC potential of 130% rated voltage for two (2) minutes without damage or breakdown. Test voltage is applied and discharged through a resistance of 1 ohm per volt minimum, and at 25°C.

Capacitance Change

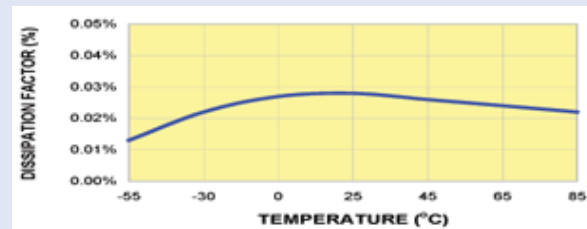
Temperature				
Percentage Change (typical)				

Capacitance Change



Dissipation Factor

When measured at the frequency specified for capacitance measurement, the dissipation factor will not exceed 0.1%.





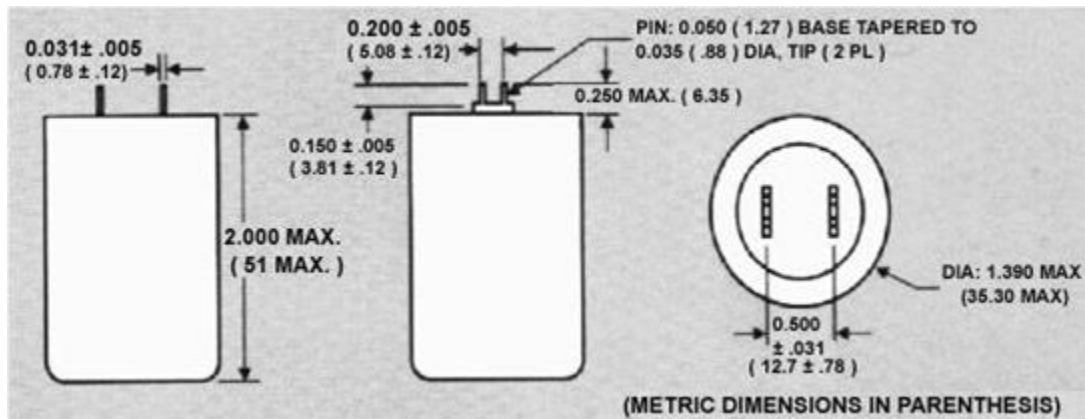
UP36 / UP37

Part Number	Cap (μF)	VDC	ESR 100 kHz	25C Amps	50C Amps	75C Amps	Ipk (AMPS)	dv/dt v/us	ESL (nH)	Fres (kHz)
UP3_BA0350	35	500	0.009	22.6	18.5	14.0	861	25	35	143
UP3_BC0300	30	600	0.011	20.4	16.9	12.4	844	28	35	155
UP3_BF0200	20	750	0.013	18.8	15.6	11.4	703	35	35	189
UP3_BJ0140	14	900	0.015	17.3	14.4	10.5	591	42	35	226
UP3_BL0100	10	1000	0.017	15.7	13.0	9.5	492	49	35	268
UP3_BN0070	7	1200	0.020	13.6	11.3	8.3	394	56	35	320
UP3_BS0047	4.7	1500	0.023	12.7	10.5	7.7	331	70	35	391

60% LINEAR VOLTAGE DERATING FROM 85°C TO 105°C
NOT INTENDED FOR USE IN AC APPLICATION



Mechanical Data



UP37 uses straight feed through mounting tabs



ADDITIONAL INFORMATION

UNLYTIC® technology provides a dry film solution for electrolytic capacitor replacement, offering ten (10) times the current density and three (3) times the over voltage protection. For safety, eliminates the possibility of caustic electrolyte leakage and its harmful effects to the environment.

For Switching power supplies where high voltages at elevated temperatures in addition to high dv/dt as well as peak current are also required.



HOW TO ORDER

TYPE Metallized Polypropylene	→	UP36
VOLTAGE Voltage range from 500VDC to 1500VDC	→	BA
CAPACITANCE IN MICROFARADS Last 3 characters represent capacitance to 1 significant digit. 350 = 35.0uF	→	0350
TOLERANCE K=±10%	→	K

Marking And DateCode

All capacitors are marked with one or more of the following: company initials "EC", corporate logo or EC trademark -- in addition to type UL30, minimum capacitance value, rated DC working voltage and date code. The first two digits of the date code represent the year, the second two digits the week, i.e., 9952 is the 52nd week of 1999, 0102 is the second week of 2001.

Quality Assurance

Major emphasis is placed on quality assurance. Raw material inspection and the use of SPC manufacturing procedures assure the highest quality standards. Procedures are fully described in the EC Quality Control Manual. Electronic Concepts, Inc. will continue to advance the state-of-the-art by utilizing leading edge technology, compact capacitor designs and establishing reliability procedures.



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