

# UP37 SERIES

## Unlytic™ Miniature Series

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The type 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

- UP37: Board feed through 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

Plastic case, epoxy filed

## 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)

Process and inspection data are maintained on file and available on special request.

## Environmental

Parameter	Method	Condition
Vibration	204	D
Immersion	104	B
Shock	213	I
Humidity	106	-
Thermal Shock	107	A
Life	108	F

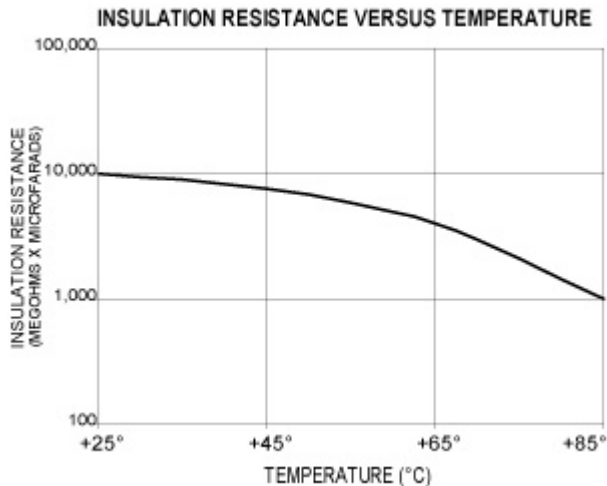
Reference MIL-STD-202

# Characteristics

## Insulation Resistance

Temperature (°C)	25	85		
Megaohms x Microfarads	10,000	1,000		

Insulation Resistance



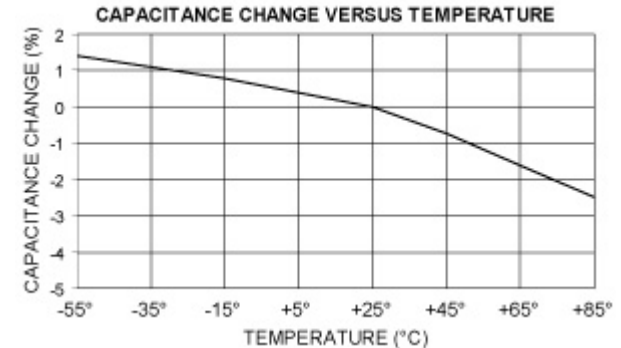
## Dielectric Strength

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

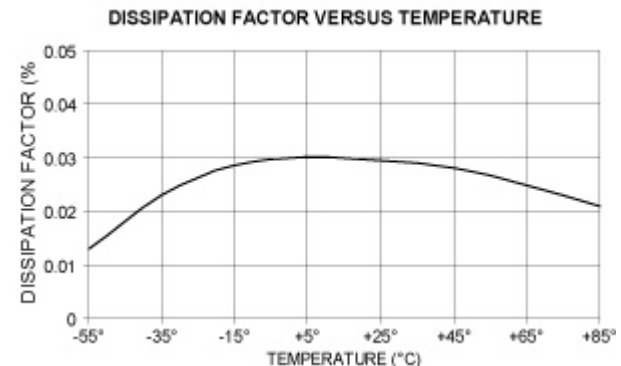
Temperature (°C)	-55	25	65	85
Percentage Change (typical)	1.4	0	-1.5	-3.5

Capacitance Change



## Dissipation Factor

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

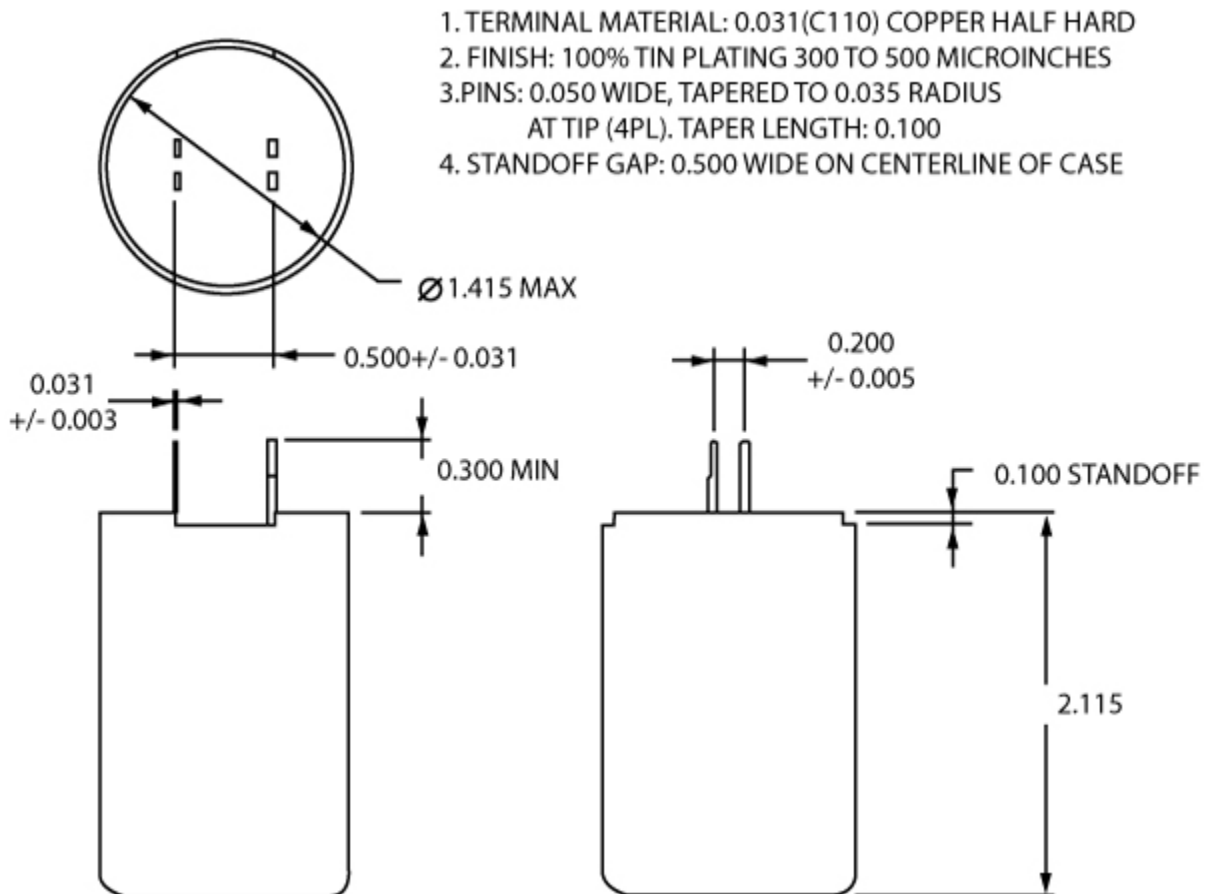


# ELECTRICAL DATA

EC PART NUMBER	CAP $\mu$ F	VDC	ESR (ohms@Fres)	TEMPERATURE			I Peak (Amps)	dv/dt (V/ $\mu$ s)	ESL (nH)	Fres (kHz)
				(Arms)						
				25°C	50°C	75°C				
UP37BA0350	35.0	500	0.009	22.6	18.5	14.0	861	25	35	143
UP37BC0300	30.0	600	0.011	20.4	16.9	12.4	844	25	35	155
UP37BF0200	20.0	750	0.013	18.8	15.6	11.4	703	35	35	189
UP37BJ0140	14.0	900	0.015	17.3	14.4	10.5	591	42	35	226
UP37BL0100	10.0	1000	0.017	15.7	13.0	9.5	492	49	35	268
UP37BN0700	7.0	1200	0.020	13.6	11.3	8.3	394	56	35	320
UP37BS0047	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



# 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

<b>TYPE</b> Metallized Polypropylene	→	<b>UP37</b>
<b>STYLE / VOLTAGE</b> Voltage range from 500VDC to 1500VDC	→	<b>BA</b>
<b>CAPACITANCE IN MICROFARADS</b> Last 3 characters represent capacitance to 1 significant digit. 350 = 35.0uF	→	<b>0350</b>
<b>TOLERANCE</b> K=±10%	→	<b>K</b>

### Marking And Date Code

All capacitors are marked with company initials "EC", corporate logo or EC trademark—in addition to type UP37, capacitance, tolerance, 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., 0952 is the 52nd week of 2009, 0902 is the second week of 2009.

### Quality Assurance

Major emphasis is placed on quality assurance. EC is an ISO 9001-2000 and AS9100:2004 Certified Company. 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 will continue to advance the state-of-the-art by utilizing leading edge technology, compact capacitor designs and establishing reliability procedures.

## Sales Offices

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