# electronic concepts





# **UNLYTIC® UL30 SERIES**

**TYPE:** film dielectric capacitor replacement for electrolytics **APPLICATION:** for high power systems that require high reliability, extended service life, compact size and maximum performance.

**PERFORMANCE:** versus electrolytic: 10x current density; 3x greater overvoltage protection; higher voltage ratings; 10 year average shelf life; patented dry film construction (no harmful electrolytes); non-polar; voltage: 300 to 1000 VDC; RMS current to 58amps, with capacitance to 1600µf. *Ask for Technical Bulletin No. L96-134* 

# **UNLYTIC® UL3I SERIES**

TYPE: non-inductive wound dry film

**APPLICATION:** for high power DC filter applications.

**PERFORMANCE:** superior physical and electrical properties, encompassing inductance as low as 25nH; voltages to 2200 VDC; capacitance to 275 µf; current carrying capability to 110 amps; operating temperature: -55°C to +105°C—and low ESR. With low profile for space and cooling efficiency; a unique thermoplastic enclosure to resist hostile environments and integrated mounting flange.

Ask for Technical Bulletin No. L01-141

# **UNLYTIC® MINIATURE UP36 SERIES**

**TYPE:** miniature film dielectric capacitor replacement for electrolytic **APPLICATION:** for decoupling in high power converter designs, with circuit board mount.

**PERFORMANCE:** versus electrolytic: 10x greater current density; 3x greater overvoltage protection; higher voltage ratings; superior performance over operating temperature range; patented dry dielectric (no harmful electrolytes); non-polar; 10 year shell life; identical package size. Voltage:500 to 1500VDC; capacitance: to 35µf; RMS current to 22.6 amps.

Ask for Technical Bulletin No. L98-135



# **5ME SERIES**

**TYPE:** Metallized Polyester

**APPLICATION:** for switching power supplies where high voltages at elevated temperatures in addition to high dv/dt as well as peak current are also required. **PERFORMANCE:** offers high performance and low cost. Voltage: 30 to 400 VDC at temperatures to 85°C; dv/dt to  $507v/\mu$ s; peak current to 6000amps; ESR as low as 5 milliohms; inductance as low as 12nH; current capabilities to 63amps.

Ask for Technical Bulletin No. L99-137







**TYPE:** Metallized Polypropylene

**APPLICATION:** snubber circuit power capacitor that fits IGBT terminal spacing for direct mounting, for across-the-buss power applications.

**PERFORMANCE:** reduces inductance up to 90% without lead wires—to simplify system design and manufacturing and improve reliability. Voltage: 400 to 3300 VDC; continuous current carrying capacity to 80amps; ESR as low as 0.003ohms; operating temperature: -55°C to +105°C. Compact size with rugged construction.

Ask for Technical Bulletin No. L93-130

# **5MP1 SERIES**

**TYPE:** Metallized Polypropylene

**APPLICATION:** "hi-rel" replacement for electrolytics for a broad range of commercial and military switching power supplies.

**PERFORMANCE:** better electrical properties with higher reliability and no "roll-off" capacitance versus electrolytic; ESR as low as 4milliohms; resonant frequency of 1065KHz; ripple current to 30amps; capacitance as high as 50µf; overvoltage protection: 200%; with excellent stability, retrace and low dielectric absorption.

Ask for Technical Bulletin No. L84-109



# 5MP2 SERIES TYPE: Metallized Polypropylene

**APPLICATION:** switching power supplies that require snubber or other high current applications.

**PERFORMANCE:** voltage: 400 to 2000VDC: capacitance as high as  $10.0\mu f$ ; ESR as low as 0.005ohms; ESL as low as 18nH; RMS current to 48.4amps; UL94-VO flame retardant; three configurations; with axial leads or tab terminations.

Ask for Technical Bulletin No. L95-133



# 5PT SERIES TYPE: Polypropylene & Foil

APPLICATION: specifically designed to meet higher current carrying requirements of resonant power circuits.

**PERFORMANCE:** exclusive construction that incorporates heavy metal electrodes in a very dense configuration, to extract significantly more current per  $\mu$ f at rated voltage. Voltage: 400 to 1500VDC; minimum inductance; capacitance: 0.010 to 0.1 $\mu$ f; current to 45amps; low impedance/ESR; five case sizes; direct plug-in type spade lugs.

Ask for Technical Bulletin No. L98-136





# **5MPA SERIES**

**TYPE:** Metallized Polypropylene

**APPLICATION:** for 480VAC applications where PWM ripple currents and line frequency currents are present.

**PERFORMANCE:** superior to other AC capacitors because of low loss dry film construction. Operates to 530VAC over temperature ranges of -55°C to +85°C. Ripple current to 83.2amps RMS; flame retardant construction; rugged high current threaded terminals for easy installation.

Ask for Technical Bulletin 5MPA

# **LO-HENRY 88 SERIES**

**TYPE:** snubber capacitor/ Metallized Polypropylene and Polypropylene & Foil constructions

**APPLICATION:** "price/performance" alternative to conventional capacitors for across-the-buss power applications including motors, electric vehicles, controllers, high power converters and power conditioning systems.

**PERFORMANCE:** exclusive dual element design with no internal wires lowers inductance up to 70%, with higher reliability. Voltage: 800 to 3000VDC; ESR as low as 0.00l9ohms; less than 25nH; ripple current to 46.2amps; dv/dt to 13,174v/µs.

Ask for Technical Bulletin No. L95-132





# 4ME12 SERIES

**TYPE:** Metallized Polyester/wrap & fill, tubular **APPLICATION:** for multiplier circuit applications, such as electrostatic copiers, oscilloscopes and high voltage power supplies.

**PERFORMANCE:** compact size with superior reliability and low cost. Self healing construction; superior protection against arcing; excellent capacitance stability; voltage:1000 to 15000VDC; capacitance range:.001 to1.00µf. Manufactured to MIL-PRF-55514.

Ask for Technical Bulletin No. L90-124

# **SE4 SERIES**

TYPE: Surface Mount Metallized Polyester

**APPLICATION:** for hi-rel decoupling power supply applications requiring high current carrying capability, dv/dt and peak current.

**PERFORMANCE:** replacement for unencapsulated PPS, polyester and ceramic capacitors. With reliability comparable to MIL-PFR-55514; withstands solder reflow to 260°C; continuous operating temperature to 125°C without degrading. Voltage to 200 VDC; dv/dt to 217v/µs; peak current to 1736amps; capacitance to 40.0µf.

Ask for Technical Bulletin No. L01-139



# **AVIONICAP® ECR SERIES**

**TYPE:** Subminiature Metallized Polycarbonate

**APPLICATION:** replacement for CK05 ceramics with improved electrical properties. Ideal for medical devices and instrumentation, computers, signal processing equipment, precision testing/measurement equipment, microcircuitry, telecommunications, avionics.

**PERFORMANCE:** patented metallizing process for size/performance advantages. Tolerance: 1%; as small as .090" x.190"; capacitance: .001 to1.0µf; self healing; no piezoelectronic effects; average 20 year service life; not frequency or voltage sensitive; voltage: 50 to 250 VDC. Available to MIL-PRF-55514/8. *Ask for Technical Bulletin* No *L83-105* 





# AVIONICAP® HECR SERIES

**TYPE:** Miniature Metallized Polycarbonate/hermetically sealed **APPLICATION:** for hostile environments where pcb density and system miniaturization are required. Effective replacement for conventional tubular axial leaded capacitors.

**PERFORMANCE:** as compact as .110" x .210" x .240" with no loss in electrical properties versus standard tubular capacitors. Voltage: 30 to 300VDC; operating temperature: -55°C to +125°C; dissipation factor: 0.20% (+25°C to +125°C); standard tolerance:10%; insulation sleeve available. Qualified to MIL-C-39022/11 styles CHR20-25.

Ask for Technical Bulletin No. L85-115

# **MU12 SERIES**

TYPE: Metallized Polyphenylene Sulfide (PPS)/wrap & fill

**APPLICATION:** for low drift, tight tolerance applications requiring stability and operating reliability.

**PERFORMANCE:** offers 1% capacitance tolerance; superior protection from hostile environments—and, although not required, is built to MIL-PRF-55514 to ensure reliability. Voltages: 50 to 400VDC; continuous operating temperature range: -55°C to +125°C; dissipation factor <0.3%; excellent retrace.

Ask for Technical Bulletin No. L01-140

# ESTABLISHED RELIABILITY FILM CAPACITORS SERIES

**TYPE:** to MIL-PRF-39022, MIL-PRF-55514, MIL-PRF-83421 **APPLICATION:** for military or commercial/industrial applications requiring high reliability and long service life.

PERFORMANCE: to applicable standards. Ask for Technical Bulletin No. L91-125







TYPE: Metallized Polypropylene wrap and fill, epoxy end fill

APPLICATION: where high insulation resistance, high Q, extreme stability, close tolerance, low dielectric absorption and dissipation factor are required. **PERFORMANCE:** outstanding electrical and environmental characteristics;

negligible capacitance shift under extended exposure to humidity, operating life and temperature cycling. Insulation resistance, dielectric absorption and dissipation factor properties equivalent or superior to polystyrene capacitors. Voltage: 150 to 600VDC; capacitance: 01-10.0µf.

Ask for Technical Bulletin:

Type MPI2 Metallized Polypropylene Capacitors

# MINIFILM<sup>®</sup> MONOLITHIC POLYMER

TYPE: ultra small, high performance film capacitor.

**APPLICATION:** up to  $1.0\mu$ f; excellent frequency spectrum. Surface mount: 2.9mm x 6.0mm x 5.5mm. Leaded: 2.4mm x 4.95mm x 4.95mm. Operating temp. to +85°C; voltage: 20VDC; capacitance tolerance as low as 5%; withstands solder reflow to 230°C; dissipation factor: 1.0% max.; ESR as low as 0.12ohms. Moisture resistance to MIL-PRF-55514.

Ask for Technical Bulletin No.Type ECP and ZRX Monolithic Polymer Capacitors.

# MC12 SERIES

TYPE: Metallized Polycarbonate/wrap & fill

APPLICATION: commercial-industrial including analog and timing circuits, high filter frequency networks.

**PERFORMANCE:** as small as .400" x .150"; low temperature coefficient; high insulation resistance; voltage: 30 to 400VDC; capacitance .0010 to 20.0µf; dissipation factor <0.3%; excellent retrace; operating temperature -55°C to +125°C.

Ask for Technical Bulletin: Type MCI2 Metallized Polycarbonate Capacitors



# More "firsts" than anyone else!

Capacitors with nonstandard physical and/or electrical properties can be built to meet specific customer requirements

Capacitor types other than those shown are available from Electronic Concepts. Contact your local representative for information.

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