

New CDE Type RA 125 °C Radial, Multilayer Polymer Film Capacitors

***For high-frequency RFI/EMI
suppression, ignition pulse forming
and motor controllers.***



RA Multilayer Polymer Capacitors

High-performance step-up from multilayer ceramic capacitors.

- Small size/shape allows dense circuitry design
- Rugged, self-encased construction
- High-reliability design:
 - Assembled with a high laminating pressure to prevent air gaps between layers.
 - Self-healing, with “no-short” failure mode
 - Impregnated with a microcrystalline polymer sealant, under vacuum, for resistance to moisture.



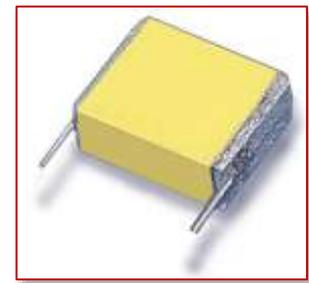
RA Multilayer Polymer Capacitors

- High frequency response is similar to MLCCs, with better performance
 - Capacitance is unaffected by applied bias voltage
 - Resists damage from pulses
 - No Piezoelectric effect
 - No cracking
 - Greater lifespan
- Very low ESR/ESL and high dv/dt
- Meets Mil Std 202 Method 204D for vibration
- RoHS Compliant and wave-solderable
- Made in USA



RA Series ratings

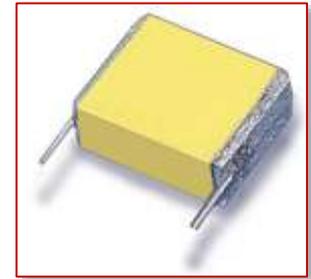
- Capacitance Range 0.1 to 10 μF
- Voltage Range: 100, 250, 400, 500 Vdc
- Operating Temp: -55°C to $+125^{\circ}\text{C}$;
- Moisture Resistance: $+85^{\circ}\text{C}$ / 85% RH / 21 days
- Dissipation Factor: $\leq 1.0\%$ @ 25°C , 1 kHz



RA Series key performance parameters.

In comparison to most wound film capacitors, the RA Series offers:

- Higher capacitance per unit volume
- More efficient use of PCB space
- Lower self-inductance compared to conventional wound film capacitors
- High self-resonant frequency (exceeding 10MHz) allows higher frequency operation



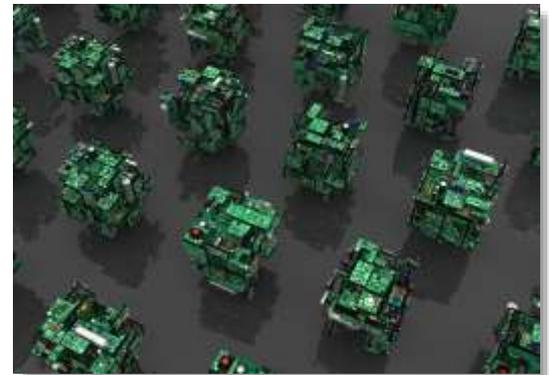
Applications match today's hottest power topologies.

- In-circuit applications include:
 - EMI/RFI suppression
 - Ripple current handling capability
 - Pulse generation
 - Any circuit requiring low ESR/ESL, high dv/dt ; long life
- Input/output filtering in 48 volt telecom bus power applications (on-board or dc/dc modules).
- High reliability, “no-fail” applications.



Applications in hot markets.

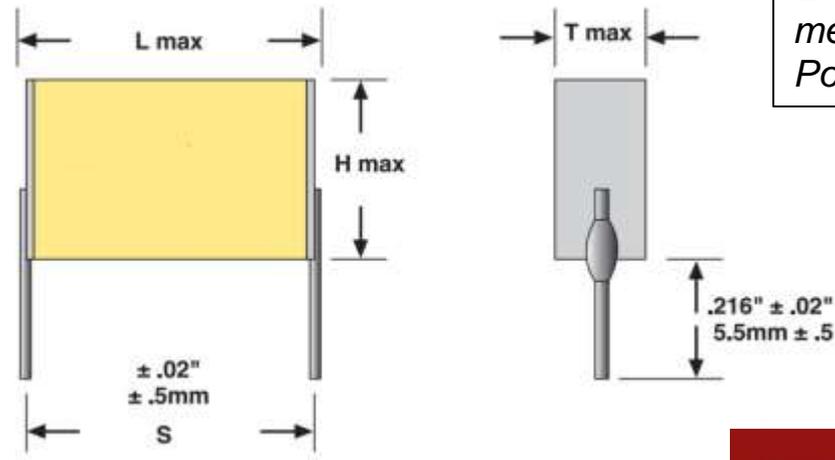
- Pulse generation in solid state ignition circuitry for small engines
- Automotive fuel pump circuitry
- Brushless DC motor driver circuits
- Provides ultra-reliable filtering and smoothing for applications in:
 - UPS systems
 - High-frequency switching power supplies
 - Inverters and micro-inverters
 - DC output power conditioning



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RA Design Characteristics

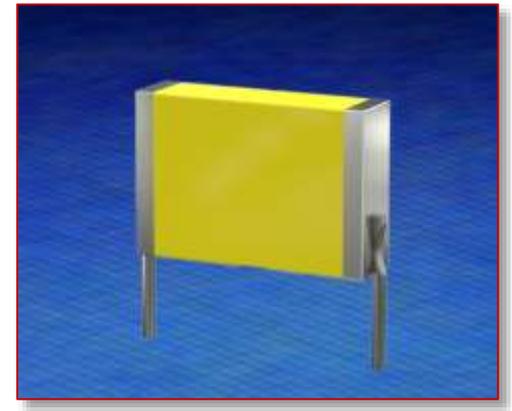
- Welded radial-leads, slim rectangular package
- Durable non-inductive construction
- Sizes vary based on values/ratings, ranging from 0.350 x 0.155 x 0.280mm to 0.650 x 0.280 x 0.540mm
- RoHS compliant (non-RoHS version available)



Electrode: Aluminum metallization
Case: Polyester tape wrap

RA Series 125° High-Density, Stacked Polyester Capacitor Summary

- Designed to maintain performance over a long life!
- Outperforms MLCC devices
- Ideal for high-rel, no-fail applications
- Compact, with high energy density
- Excellent high-frequency performance
- Rugged, self-encased construction
- Moisture Resistance: +85°C / 85% RH
- Broad range of capacitance values
- -55 °C to 125 °C operation



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