

Hybrid Capacitor Technology for Hi-Rel Applications

Misha Pierre-Mike
Evans Capacitor Company
misha@evanscap.com

1. What is a hybrid capacitor?
 - a. Technology overview
 - b. Construction
 - c. Comparison to various capacitor technologies
 - d. Typical applications
2. Critical capacitor design considerations for Hi-Rel Applications
 - a. Environmental – Temperature, Altitude, Shock, Vibration
 - b. Electrical – ESR, ESL, DCL, Life
 - c. Mechanical – Size, Weight, Form Factor
 - d. Reliability – MTBF
3. Recent advances in Hybrid technology
 - a. Improved power density
 - b. Improved shock and vibration withstand capability
 - c. Reduced ESR
4. Case Study – Radar & Laser
 - a. Calculating your capacitance needs
 - b. Comparison of capacitor technologies to achieve your solution
5. Why is ESR Important?
 - a. Calculating the effects of ESR on your capacitance needs
 - b. The impacts of voltage droop and how to overcome it
6. Q&A