**Benefits of Film Capacitor Technologies**
- Stable, high reliability
- Wide range of capacitance and voltage values
- High current handling
- Low DF (dissipation factor)
- Capacitance stability over frequency and temperature
- Self healing (clearing)

**Good vs. Bad Clearing**
- A good clear completely combusts the material in the fault area, "clearing" away the weak point
- A bad clear enables a conductive pathway in the fault area, resulting in device damage or catastrophic failure

**Influences on Film Clearing**
- Manufacturers can control several aspects of capacitor design to influence clearing energy
  - It is desirable to control the energy of clears in order to
    - Avoid bad (catastrophic) clears
    - Minimize capacitance loss
    - Prevent weak spots from forming

**Limits of Clearing**
- Even optimized designs can clear poorly when pushed to extreme voltages or temperatures
- Each film material responds differently to these stresses
- Capacitor specifications account for self clearing limits

**Conclusion**
- Clearing is a key feature of metalized film capacitors
- Clearing enables metalized film capacitors to have stable, predictable, and robust performance
- Manufacturers must balance device design to achieve reliable performance