Pop-Elimination Bleeder Circuit

- **Description**
  - A bleeder circuit which increases the bleeder current ($I_{BL}$) at lower conduction angles or lower input voltages

- **Benefits**
  - Reduces the pop-on effect in dimmer circuits for LEDs
  - Utilizes the full power rating of the passive and active components
  - Protects the bleeder circuit from overvoltage

Figure 1. Dimmer with a variable bleeder circuit
Pop-Elimination Bleeder Circuit

Variable bleeder circuit – Example 1

- The bleeder circuit increases the bleeder current at lower conduction angles.

Figure 2. Variable Bleeder Circuit for lower conduction angles
Pop-Elimination Bleeder Circuit

- **Variable bleeder circuit – Example 2**
  - The bleeder circuit increases the bleeder current at lower input voltages.

*Figure 3. Variable Bleeder Circuit for lower input voltages*