

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

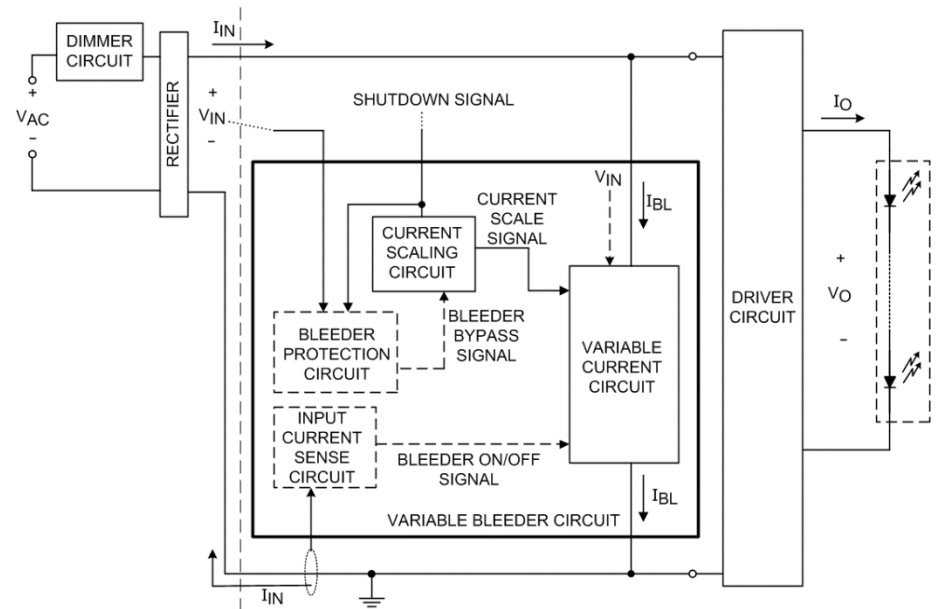


Figure 1. Dimmer with a variable bleeder circuit

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Variable bleeder circuit – Example 1

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

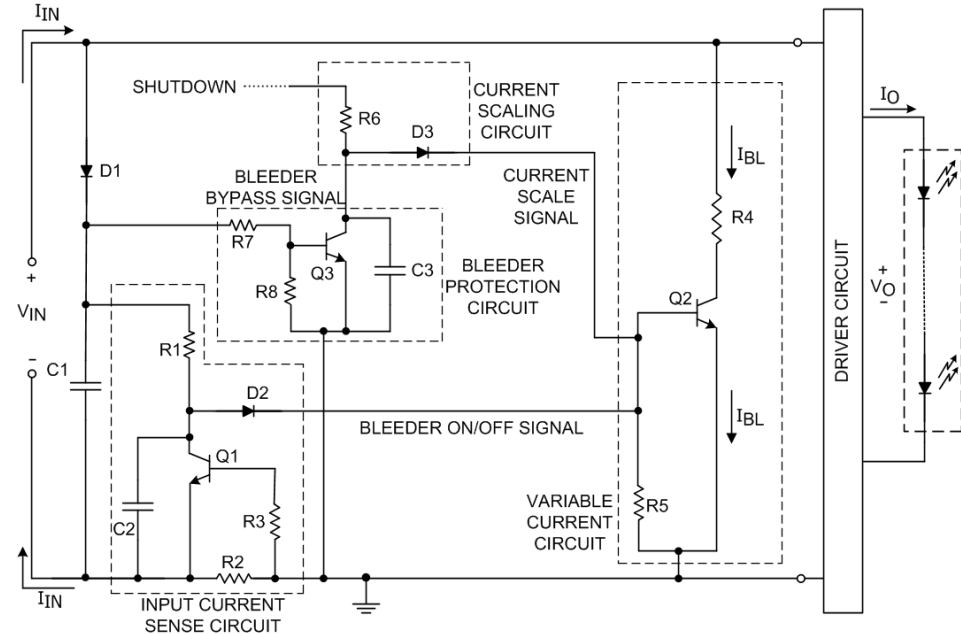


Figure 2. Variable Bleeder Circuit for lower conduction angles

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

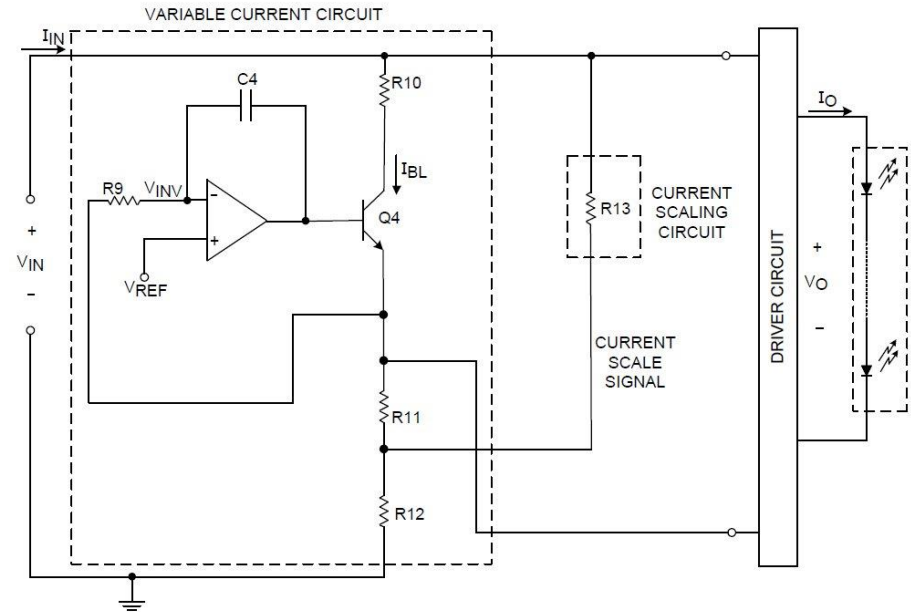


Figure 3. Variable Bleeder Circuit for lower input voltages