

Leading Edge and Trailing Edge Dimmer Detection and Bleeder Activation

■ Description

- ▶ Detects both leading and trailing edge dimmers when the input voltage is greater than a threshold
- ▶ A timing circuit avoids false edge detection and activates the bleeder after a threshold time delay

■ Benefits

- ▶ Bleeder maintains input current above the holding threshold for smooth dim
- ▶ Multiple ways to implement the idea with simple electronic devices (Figure 2 illustrates an example circuit)

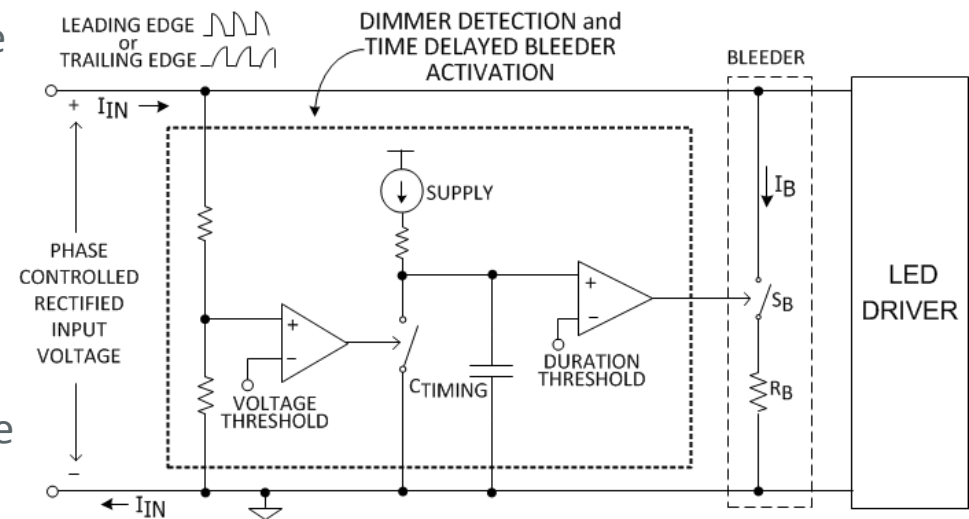


Figure 1. Dimmer detection and bleeder activation circuit

Leading Edge and Trailing Edge Dimmer Detection and Bleeder Activation

■ Benefits

- ▶ Simplifies application by detecting both leading edge and trailing edge dimming
- ▶ Improves function by reducing false response
- ▶ Good performance of efficiency and dimming ratio
- ▶ Saves extra activation source because the supply voltage for bleeder activation is provided by dimmer detection

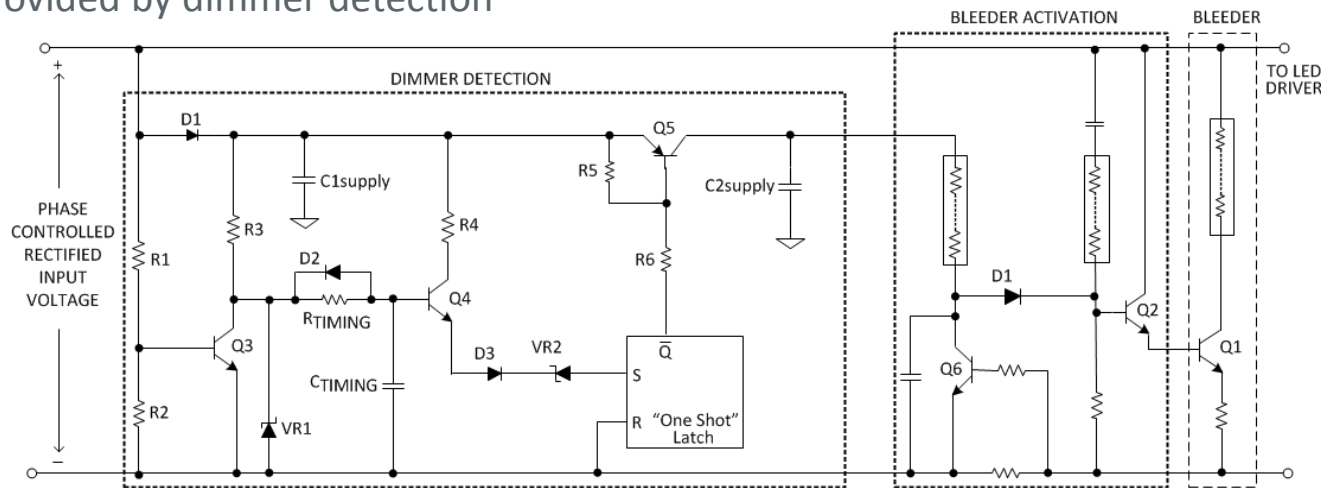


Figure 2. Detailed schematic of edge detection and bleeder activation circuit