

# Output Overvoltage Protection

## ■ Description

- ▶ Provides accurate output overvoltage detection by removing the transient spike of the bias winding signal caused from the parasitic capacitance of the bias winding.
- ▶ In addition, the bias winding is used to supply power to the power converter controller through the bypass pin.

## ■ Benefits

- ▶ Protects the load from excess output voltage resulting from feedback faults.
- ▶ Provides tighter tolerance for maximum allowable output voltage.
- ▶ **Could be used with:** TinySwitch

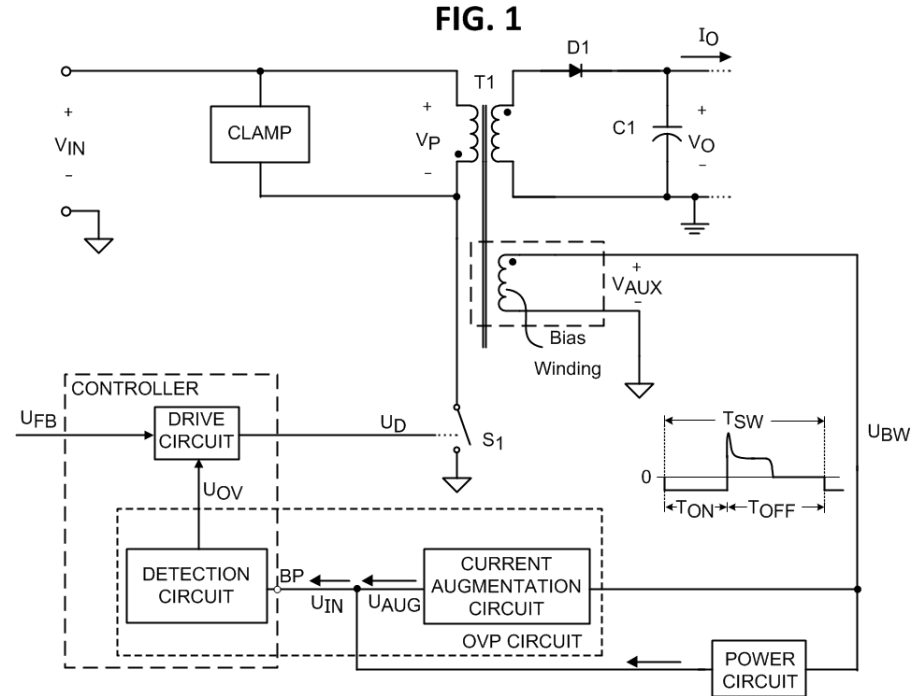
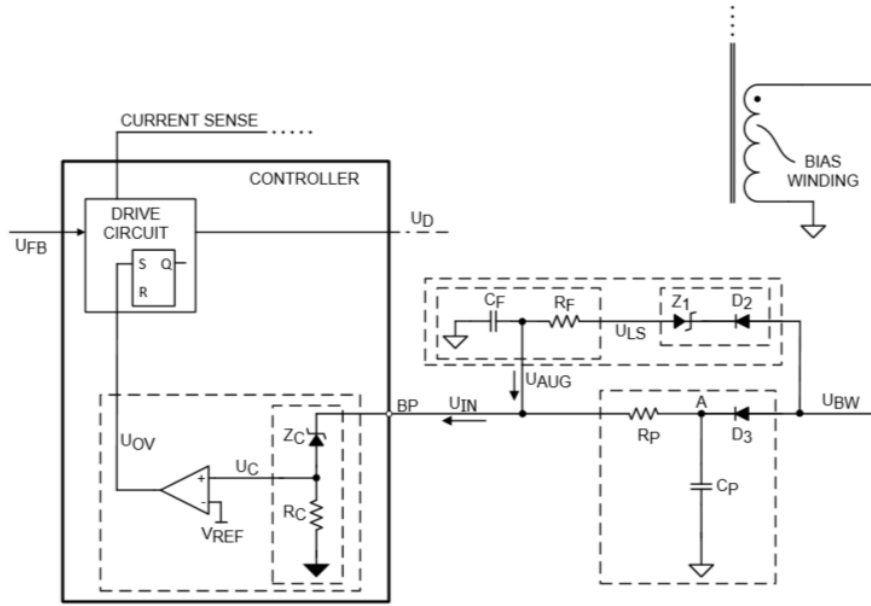


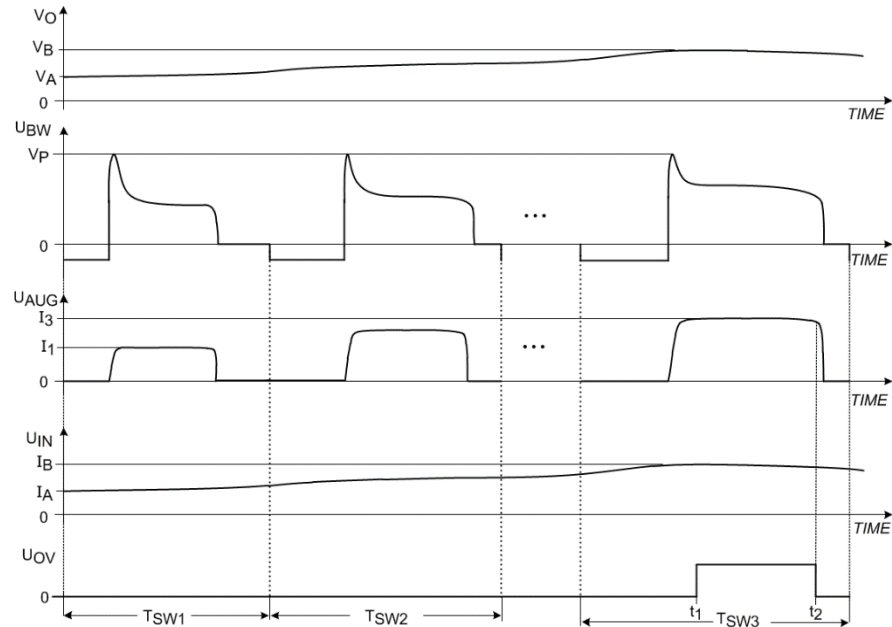
Figure 1. Flyback converter including an accurate output overvoltage detection circuit.

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**FIG. 2**

Figure 2. Current augmentation circuit removes the transient spike of the bias winding voltage and generates an augmentation signal ( $U_{AUG}$ ).



**FIG. 3**

Figure 3. Timing diagram illustrating the augmentation signal ( $U_{AUG}$ ) is a constant portion signal shown as the flat portions of currents  $I_1$  and  $I_3$  derived from a bias winding signal ( $U_{BW}$ ) to detect an output overvoltage detection.