

OFF-LINE PHASE CONTROL LOW-POWER POWER SUPPLY

ABSTRACT OF THE DISCLOSURE

An unfiltered, full-wave rectified voltage waveform (V_{REC}) is fed to a power supply (10) having a switch device (Q1), which operates in fully conductive and non-conductive states, and to a
5 reference voltage circuit (13). As the rectified voltage waveform drops below a threshold level, the reference voltage circuit biases a control circuit (12), thereby causing the switch device to begin conducting a current (I_{OUT}). The switch device continues
conducting until the rectified voltage waveform exceeds the
10 threshold level. The output voltage (V_{OUT}) is limited by resistive feedback (R6) coupled from the output of the power supply to the reference voltage circuit. The value of the resistance in the feedback path influences the threshold level and the peak
amplitudes of the current pulses conducted by the switch device.

15

FIGURE 1