

SWITCHING POWER CIRCUIT
ABSTRACT OF THE DISCLOSURE

A switching power circuit having a power factor improving circuit for a composite resonance type converter, wherein a switching pulse is fed back from a tertiary winding, which is coiled around an insulating converter transformer, via a series resonance capacitor. And a rectified current is turned on and off by a fast recovery diode in accordance with the feedback output, hence achieving power factor improvement. In this structure, a smoothing capacitor is charged with the resonance current even during an off-period of the fast recovery diode due to the resonance of a series resonance circuit including the series resonance capacitor. This circuit configuration eliminates the necessity of selection of a higher withstand voltage relative to the primary-side smoothing capacitor by suppressing rise of the DC input voltage in a no-load state.

Fig. 1