Multi E-Shield[™] to Reduce Displacement Current & EMI

Description

- Conductive metal-foil shield between input and output windings
- Core cancellation winding between the core and input winding; one end connected to the input winding and other end is floating
- A second cancellation winding connected to input ground with the other end floating and surrounds the output winding





US 6,982,621; 7,369,026; 7,123,121; 6,977,803; 7,378,929 Rev: 1; DEC 2016; PI.0062

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Multi E-Shield[™] to Reduce Displacement Current & EMI

Benefits

- May save space, size and cost of the printed circuit board (PCB) by:
 - Eliminates external electromagnetic interference (EMI) filter
 - Eliminates Y-capacitor and some resistors
- Could be used with: flyback converters to reduce displacement current between input and output windings Margin Tape



Figure 2. Transformer winding structure with multi E-Shield

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