



New Product Announcement

AP3983B/C/D/E/R

High-Performance Primary-Side Power Switcher for Off-Line SMPS

The AP3983B/C/D/E/R is a family of enhanced-performance power switchers delivering improved:

- Conversion efficiency
- Voltage & current accuracy
- Protection functions

The family regulates the output voltage and current on the primary side by piece-wise Pulse Frequency Modulation (p-PFM) in discontinuous conduction mode with an operating frequency up to 80kHz.

The AP3983B/C/D/E/R family has built-in fixed cable voltage compensation. Typical applications include chargers, Data-comms adapters and home appliance power supplies.

The AP3983B/C/R are packaged in SO-7, delivering output powers up to 10W and the AP3983C/D/E are packaged in PDIP-7, delivering powers up to 20W.



The Diodes Advantage

- **Accurate Primary Side Regulation**
Eliminates Opto-coupler and '431/CC-CV components, reducing overall BOM size and cost
- **Built-in MOSFET:**
650 BV_{DSS} for AP3983B/C/D
700 BV_{DSS} for AP3983E/R
Reduces solution size; High-drain voltage meets wide AC input
- **Internal Output Cable Voltage Drop Compensation**
Reduces external components and solution size
- **Switching Frequency Dithering Function**
Improves EMC performance
- **Multi-Interval Pulse Frequency Modulation**
Avoids audible noise
- **Hiccup Function**
Improves Short Circuit Protection

Applications

- <20W Adapters
- Appliance power supplies
- Data-comms adapters
- Chargers

