

MCP14A1201/2

12A MOSFET Driver With Low Threshold Input and Enable

General Information

The MCP14A1201/2 devices are high-speed MOSFET drivers that provide up to 12A of peak current while operating from a single 4.5V to 18V supply. There are two output configurations: inverting (MCP14A1201) and non-inverting (MCP14A1202). These devices feature low shoot-through current, fast rise and fall times, and matched propagation delays which make them ideal for high switching frequency applications. All terminals are fully protected against Electrostatic Discharge (ESD) up to 2 kV (HBM) and 200V (MM).



Features

- High peak output current: 12A (typical)
- Wide input supply voltage operating range: 4.5V to 18V
- Low shoot-through/cross-conduction current in output stage
- High capacitive load drive capability: 15,000 pF in 25 ns (typical)
- Low-voltage threshold input and enable with hysteresis
- Latch-up protected withstands 500 mA reverse current
- Space-spacing packages: 8-Lead MSOP, SOIC and 2 × 3 TDFN

Benefits

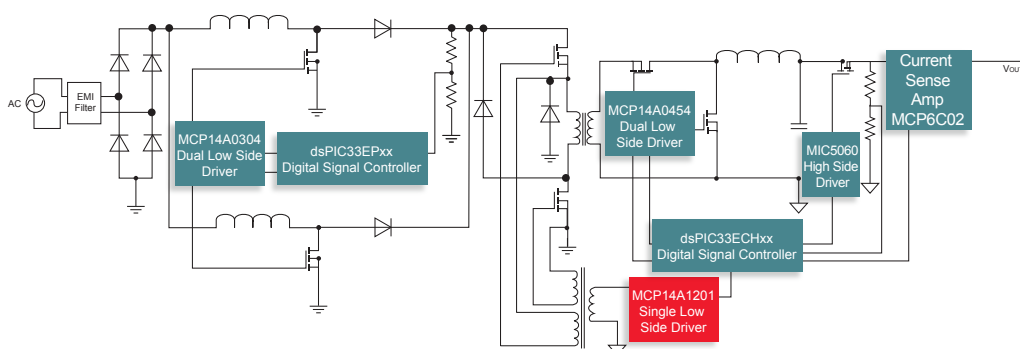
- Devices enable interfacing to low-voltage MCU or FPGA to a large capacitance, with fast switching times which is a key market trend
- 2 × 2 and 2 × 3 DFN are among the smallest packages in the industry at their respective drive current ratings which helps reduce board space and cost
- Devices operate in wide range of current options and temperature range, ideal for harsh environments

Applications

- Switch mode power supplies
- Pulse transformer drive
- Line drivers
- Level transistor
- Motor and solenoid drive



Two Staged Forward Converter



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