

PL-0301

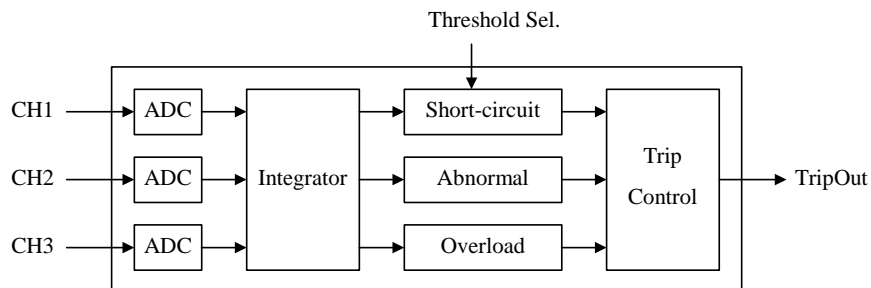
AC/DC Power Protection IC

OVERVIEW

The PL-0301 Power Protection IC is designed to provide overload protection for the AC/DC power system. It can be used for power protection ranges from mA to KA depending on the current transformer specification. Built-in internal three overload detection modes (short circuit, abnormal and overload) to check different overload conditions. The short circuit overload detection can detect the short circuit condition under 500us. It will cut off the power immediately to prevent the electrical device from burning out. For the abnormal overload protection, the chip can monitor the abnormal current increase. If the current increases too fast and will damage the electrical device, the PL-0301 chip will cut off the power. The overload protection works when the current under normal condition is too large generating too much heat. The PL-0301 will depend on the current condition to decide when to cut off the power and to prevent the electrical device from overheat.

PL-0301 also can support the AC/DC leakage detection/protection. Over/under voltage detection/protection can be optional in the next advanced chip.

PL-0301 Block Diagram



Feature

- 3 overload detection channels
- 3 different overload detection modes for each channel
 - Short circuit mode for short-circuit (extra high) protection
 - Abnormal mode for short period high current overload
 - Overload mode for long period medium current overload
- Programmable overload threshold
- Quick response time: under 500 us
- Built-in noise filter for each channel
- Require few external components
- Adjustable sensing rating from mA to KA
- High reliability
- Small package (SOP14 ~ SOP20)

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