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ORing FET Controller Protects Automotive Electrical Systems

<u>Maxim Integrated's</u> MAX16141 is a 36-V ORing FET controller with voltage and current circuit breaker for monitoring overvoltage, undervoltage, overcurrent, reverse-current and overtemperature conditions in automotive power applications, including infotainment and advanced driver assistance systems (ADAS). Providing a full suite of system protection functions, the controller elicits a rapid response time of $0.3~\mu s$ to reverse current events, increasing system hold-up time and functionality during automotive transient conditions (see the figure).

By enabling a true shutdown mode to prevent leakage current and by minimizing the current draw to inactive circuitry, the controller decreases total system power and prioritizes engine starting power over all other electrical systems. Features include a 3.5-V to 36-V operating voltage range, a -36-V to 60-V protection range and an auxiliary Vcc supply for powering backup-critical circuits during faults..

Offered in a 16-pin 4-mm x 4-mm TQFN package, the MAX16141 is available at Maxim's website for \$2 each in quantities of 1000. For more information, see the MAX16141 product <u>page</u>.

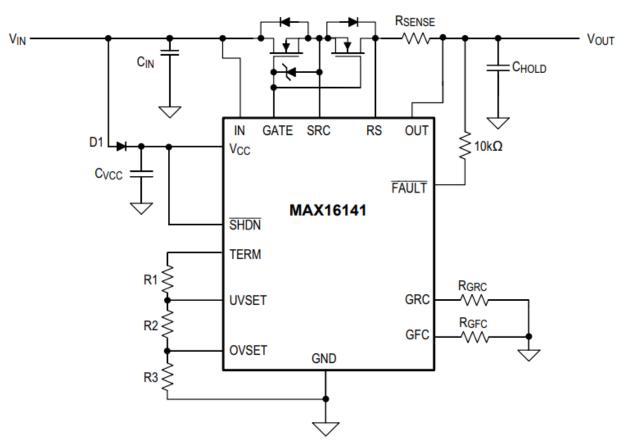


Figure. The MAX16141 ORing FET controller boasts a 0.3-µs rapid response and a low-leakage True Shutdown mode.