Supervisory ICs

The FM809, FM810 and FM1233 supervisory ICs from Fairchild Semiconductor International feature a precision comparator and a reset generator to ensure proper functioning of microcontroller- and microprocessor-based systems by monitoring the supply line (V_{CC}). These devices are designed to monitor power supplies and other system voltages to generate a reset output when the voltage being monitored is out-of-tolerance. Fairchild's new supervisory ICs consume very small current, typically 2 &#956A, compared to a range of 9 to 45 &#956A found in competitors' equivalents. Due to this extremely low active current consumption, they are the ideal choice for all battery-based applications.
These products represent three families having reset threshold voltages in the 2.63 V to 4.63 V range to accommodate various system voltages viz. 5.0 V, 3.3 V, 3.0 V and 2.7 V. In addition, the FM1233 family features bi-directional reset support with on chip de-bounce circuit. This feature allows a push-button to be directly connected to its reset output, to manually generate a reset without adding logic or extra pins.
The FM809 and FM1223 feature an active low reset polarity while the FM810 features active high reset polarity. The reset output of both FM809 and FM810 is of &quotPush-Pull&quot type while the reset output of FM1233 is of &quotOpen-Drain&quot type. With all three products, when the supply voltage (V_{CC}) is out-of-tolerance, the reset line of the IC is driven to its active state and is held there until V_{CC} returns to an in-tolerance state and the time for the reset pulse has expired. The standard offering has reset pulse duration of 256 ms, but other reset pulse choices from 32 to 128 ms are available upon request. Customers are also able to order products with custom voltage threshold settings.
All three devices are available in SOT-23 packages and each have an operating temperature range of -40&#176 C to 105&#176 C. Other package options such as SOT-223 and SC-70 will be available soon.

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