

MIC826

Voltage Supervisor with Watchdog Timer, Manual Reset, and Dual Outputs



Benefits

Low Power Consumption

Space-Saving Solution

Higher Threshold Accuracy

Easy Interface

Wide Supply Monitor Range

Features

- 3.8 μ A supply current for 1.8V to 3.3V supply
- 4.8 μ A supply current for 5V supply
- 1.6mm x 1.6mm x 0.55mm Thin DFN package
- 48% smaller than SC70 and 70% smaller than SOT23 competition's package
- $\pm 0.5\%$ reset threshold at $T_A = +25^\circ\text{C}$
- $\pm 1.5\%$ reset threshold at $T_A = -40^\circ\text{C}$ to $+125^\circ\text{C}$
- Dual active-high and active-low push-pull outputs
- Eight reset threshold options from 1.665V to 4.625V

MIC826

Voltage Supervisor With Watchdog Timer, Manual Reset And Dual Outputs In 1.6mm x 1.6mm TDFN

- 50% to 70% smaller package
- 25% to 75% lower supply current
- 1% to 2% higher voltage threshold accuracy

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Applications

- Low-voltage DSPs, microcontrollers, microprocessors
- Wireless communication systems
- Portable/battery-powered equipment
- Notebook computers
- Smartphones/tablets
- Solid state drives (SSD)
- Industrial systems
- Automotive systems

MIC826

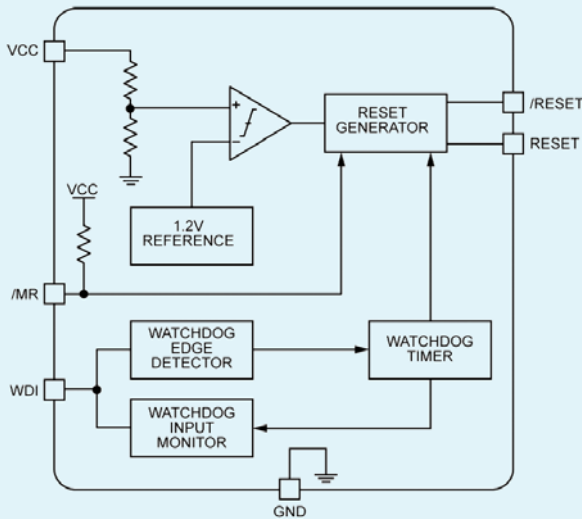
Description

The MIC826 is a low-current, ultra-small, voltage supervisor with manual reset input, watchdog timer, and active-high and active-low push-pull outputs. The reset outputs are asserted and held when the supply voltage falls below the factory-programmed threshold voltage, when the /MR pin is pulled low, or if the watchdog times out. Reset is asserted for the reset timeout delay after the supply voltage increases above the rising threshold voltage or when manual reset input is asserted high.

The MIC826 features an integrated pull-up resistor on the /MR. An active-low push-pull reset output (/RESET) and an active-high reset output (RESET) provide flexibility when interfacing with various microcontrollers, PMICs, or load switches. The watchdog input can be left unconnected for applications that do not require watchdog monitoring.

The MIC826 consumes a quiescent current of only 3.8µA and is offered in a tiny, space-saving, 6-pin 1.6mm x 1.6mm Thin DFN package. It is rated for the -40°C to +125°C temperature range.

Functional Diagram



Ordering Information

Part	Nominal Threshold Voltage	Junction Temperature Range	Package
MIC826LYMT	4.625V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826MYMT	4.375V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826TYMT	3.075V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826SYMT	2.925V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826RYMT	2.625V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826ZYMT	2.315V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826YYMT	2.188V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN
MIC826WYMT	1.665V	-40°C to +125°C	6-Pin 1.6mm x 1.6mm TDFN

About Micrel

Micrel, Inc. is a leading global manufacturer of High Performance Linear and Power, Timing and Communications, and LAN Solutions. The Company's products include advanced mixed-signal, analog, and power semiconductors; high performance communication, clock management, Ethernet switch, and physical layer transceiver ICs. Company customers include leading manufacturers of enterprise, consumer, industrial, mobile, telecommunications, automotive, and computer products. Corporation headquarters and state-of-the-art wafer fabrication facilities are located in San Jose, CA, with regional sales and support offices and advanced technology design centers situated throughout the Americas, Europe, and Asia. In addition, the Company maintains an extensive network of distributors and reps worldwide.

For more information, contact your local Micrel sales representative, or visit Micrel at www.micrel.com



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