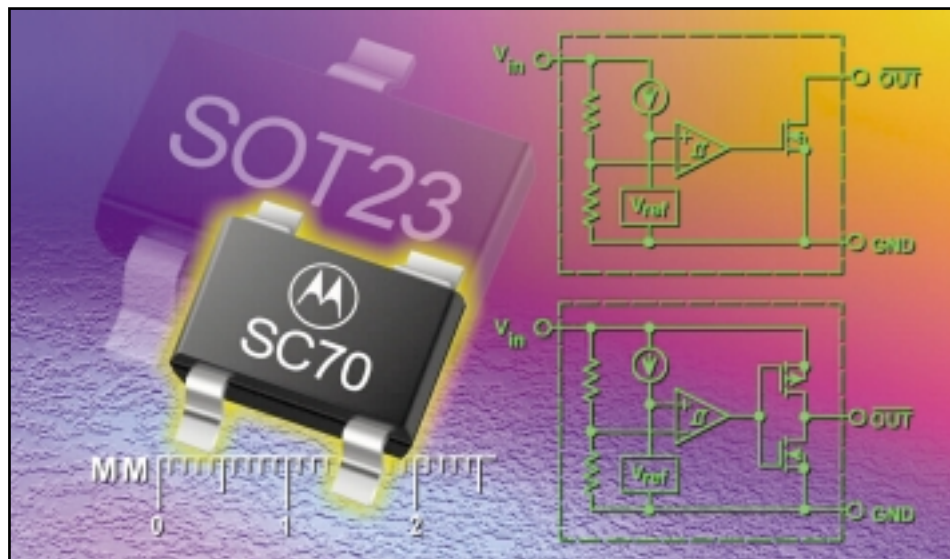




Nearly Half the Size of a SOT-23, New Subminiature Package Houses Voltage Detector Series



Introduction

The new miniature 4-lead SC-70 (SC-82AB) surface mount package, measures only 2.0 mm x 2.1 mm x 0.9 mm (Length x Width x Thickness) and is approximately half the size of a SOT-23 package. The MC33460 and MC33461 are new voltage detectors, available in the 4-lead SC-70 package, designed for use in small, portable, wireless communication applications, where space savings is very appealing to designers. They send a RESET to a MPU/MCU whenever the supply voltage falls below an internally preset threshold. No external components are required. The voltage detectors also have a very wide operating voltage ranging from 0.7 V to 10 V and feature an ultra low supply current of 0.8 mA typical. The $\pm 2\%$ accuracy of the built-in hysteresis promotes stable switching.

The MC33460 features an active low, open-drain RESET output whereas the MC33461 features an active low, push-pull RESET output. These devices are now available with internally preset thresholds of 0.9 V, 2.0 V, 2.7 V, 2.8 V, 3.0 V, 3.2 V, 4.3 V, and 4.5 V. Other voltage options can be available by steps of 0.1 V increments.

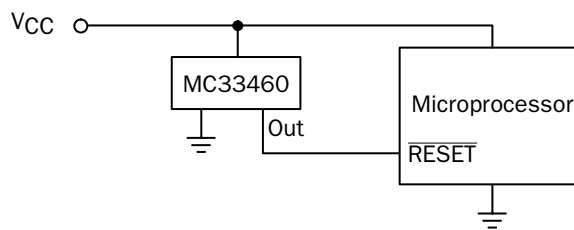
Features/Benefits

- ◆ Active low reset output ($\overline{\text{RESET}}$)
- ◆ Ultra low supply current – only 0.8 mA typical at $V_{\text{in}} = 1.5 \text{ V}$
- ◆ Operates with voltage range of 0.7 V to 10 V
- ◆ High accuracy voltage threshold of $\pm 2\%$
- ◆ Offered with two output options:
 - MC33460 = N channel open drain
 - MC33461 = CMOS Complementary
- ◆ Device is housed in space-saving SC-70 4-lead (SC-82AB) package
- ◆ Wide operating range of -40°C to $+85^{\circ}\text{C}$

Types of Applications

- ◆ CPU and Logic circuit reset
- ◆ Battery monitoring
- ◆ Window Comparator
- ◆ Wave shaping circuit
- ◆ Battery back-up circuit
- ◆ Power failure detector

Typical Application



Customer Benefits

- ◆ High accuracy in designs
- ◆ Allows for operation below 1.0 V with extremely low standby current. Eliminates the need to change design when using lower voltage components.
- ◆ Prevents erratic reset operation

Ordering Information

Device	Threshold Voltage	Output Stage
MC33460SQ-09ATR	0.9 V	N-Channel Open Drain
MC33460SQ-20ATR	2.0 V	N-Channel Open Drain
MC33460SQ-27ATR	2.7 V	N-Channel Open Drain
MC33460SQ-28ATR	2.8 V	N-Channel Open Drain
MC33460SQ-30ATR	3.0 V	N-Channel Open Drain
MC33460SQ-32ATR	3.2 V	N-Channel Open Drain
MC33460SQ-43ATR	4.3 V	N-Channel Open Drain
MC33460SQ-45ATR	4.5 V	N-Channel Open Drain
MC33461SQ-09ATR	0.9 V	CMOS Complimentary
MC33461SQ-20ATR	2.0 V	CMOS Complimentary
MC33461SQ-27ATR	2.7 V	CMOS Complimentary
MC33461SQ-28ATR	2.8 V	CMOS Complimentary
MC33461SQ-30ATR	3.0 V	CMOS Complimentary
MC33461SQ-32ATR	3.2 V	CMOS Complimentary
MC33461SQ-43ATR	4.3 V	CMOS Complimentary
MC33461SQ-45ATR	4.5 V	CMOS Complimentary

TR Suffix = Tape & Reel; 3,000 Unit per 7-Inch Reel

Literature

A data sheet containing full specifications is available as **MC33460/D**. See the last page for detailed information on how to obtain technical literature.

Lead Time & Pricing

Samples and production quantities are currently available with pricing for the MC33460 /MC33461 suggested at \$0.35 for quantities of 15K.

How to Obtain Technical Literature

There are several ways to obtain ON Semiconductor's Technical Literature and Publications. Below you will find a list of methods to contact our Literature Distribution Center (LDC). If you need any assistance, or if you are having difficulty contacting LDC, please email us in the Technical Publications Group at r22782@onsemi.com or call us at 602-244-3882.

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