

## Description

The GM5510 series are highly precise and low power consumption voltage detectors. Manufactured by using CMOS and laser trimming technologies. Detect voltage is extremely accurate with minimal temperature drift. Both CMOS and N-channel open drain output configurations are available.

## Features

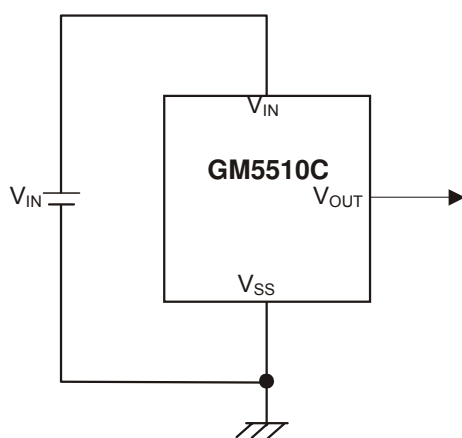
- ◆ **Highly accurate:**  $\pm 2\%$
- ◆ **Low power consumption:** TYP  $0.7\mu\text{A}$  ( $V_{\text{IN}} = 1.5\text{V}$ )
- ◆ **Detect voltage range:** 1.6V to 6.0V in 0.1V increments
- ◆ **Operating voltage range:** 0.7 to 10.0V
- ◆ **Detect voltage temperature characteristic:** TYP  $\pm 100 \text{ ppm}/^\circ\text{C}$
- ◆ **Output Configuration:** CMOS or N channel open drain

## Application

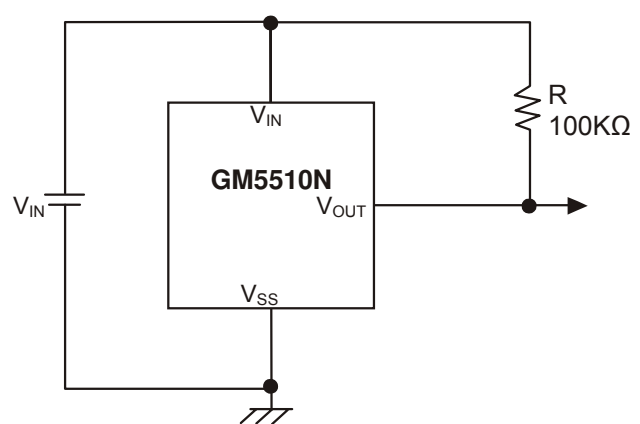
Microprocessor reset circuitry  
Memory battery back-up circuits  
Power-on reset circuits

Power failure detection  
System battery life and charge voltage monitors

## Typical Application Circuits



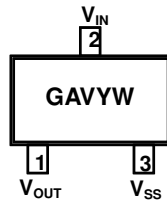
CMOS Output



N-CH Open Drain Output

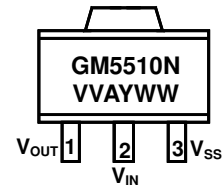
## Marking Information and Pin Configurations (Top View)

SOT23

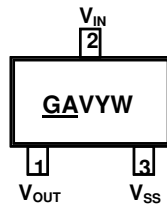


GA: GM5510N, N-CH Open Drain  
V: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
W: Week Code

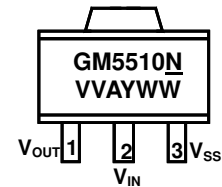
SOT89



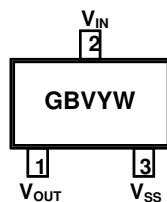
N: N-CH Open Drain  
VV: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
WW: Week



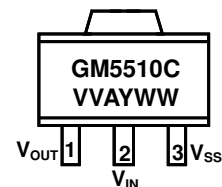
GA: GM5510N, N-CH Open Drain, Green Product  
V: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
W: Week Code



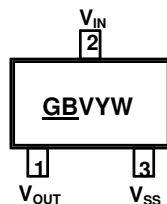
N: N-CH Open Drain, Green Product  
VV: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
WW: Week



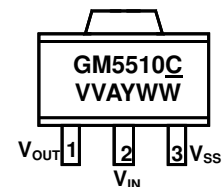
GA: GM5510C, CMOS  
V: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
W: Week Code



C: CMOS,  
VV: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
WW: Week



GB: GM5510C, CMOS, Green Product  
V: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
W: Week Code



C: CMOS, Green Product  
VV: Detect Voltage (See "Voltage Suffix" table)  
Y: Year  
WW: Week

## Ordering Information – Pb Free Products

Ordering Number	Output Configuration	Detect Voltage	Voltage Suffix	Package	Shipping
GM5510C-1.8ST23R	CMOS	1.8V	C	SOT-23	3,000 Units / Reel
GM5510C-2.0ST23R	CMOS	2.0V	E	SOT-23	3,000 Units / Reel
GM5510C-2.7ST23R	CMOS	2.7V	K	SOT-23	3,000 Units / Reel
GM5510C-2.9ST23R	CMOS	2.9V	M	SOT-23	3,000 Units / Reel
GM5510C-2.93ST23R	CMOS	2.93V	S	SOT-23	3,000 Units / Reel
GM5510C-3.0ST23R	CMOS	3.0V	N	SOT-23	3,000 Units / Reel
GM5510C-3.08ST23R	CMOS	3.08V	P	SOT-23	3,000 Units / Reel
GM5510C-3.3ST23R	CMOS	3.3V	Q	SOT-23	3,000 Units / Reel
GM5510C-3.6ST23R	CMOS	3.6V	T	SOT-23	3,000 Units / Reel
GM5510C-4.0ST23R	CMOS	4.0V	X	SOT-23	3,000 Units / Reel
GM5510C-4.1ST23R	CMOS	4.1V	Y	SOT-23	3,000 Units / Reel
GM5510C-4.2ST23R	CMOS	4.2V	Z	SOT-23	3,000 Units / Reel
GM5510C-1.8ST89R	CMOS	1.8V	18	SOT89	1,000 Units / Reel
GM5510C-2.0ST89R	CMOS	2.0V	20	SOT89	1,000 Units / Reel
GM5510C-2.7ST89R	CMOS	2.7V	27	SOT89	1,000 Units / Reel
GM5510C-2.9ST89R	CMOS	2.9V	29	SOT89	1,000 Units / Reel
GM5510C-3.0ST89R	CMOS	3.0V	30	SOT89	1,000 Units / Reel
GM5510C-3.08ST89R	CMOS	3.08V	31	SOT89	1,000 Units / Reel
GM5510C-3.3ST89R	CMOS	3.3V	33	SOT89	1,000 Units / Reel
GM5510C-3.6ST89R	CMOS	3.6V	36	SOT89	1,000 Units / Reel
GM5510C-4.0ST89R	CMOS	4.0V	40	SOT89	1,000 Units / Reel
GM5510C-4.1ST89R	CMOS	4.1V	41	SOT89	1,000 Units / Reel
GM5510C-4.2ST89R	CMOS	4.2V	42	SOT89	1,000 Units / Reel

## Ordering Information – Pb Free Products (continued)

Ordering Number	Output Configuration	Detect Voltage	Voltage Suffix	Package	Shipping
GM5510N-1.8ST23R	N-CH Open Drain	1.8V	C	SOT-23	3,000 Units / Reel
GM5510N-2.0ST23R	N-CH Open Drain	2.0V	E	SOT-23	3,000 Units / Reel
GM5510N-2.7ST23R	N-CH Open Drain	2.7V	K	SOT-23	3,000 Units / Reel
GM5510N-2.9ST23R	N-CH Open Drain	2.9V	M	SOT-23	3,000 Units / Reel
GM5510N-2.93ST23R	N-CH Open Drain	2.93V	S	SOT-23	3,000 Units / Reel
GM5510N-3.0ST23R	N-CH Open Drain	3.0V	N	SOT-23	3,000 Units / Reel
GM5510N-3.08ST23R	N-CH Open Drain	3.08V	P	SOT-23	3,000 Units / Reel
GM5510N-3.3ST23R	N-CH Open Drain	3.3V	Q	SOT-23	3,000 Units / Reel
GM5510N-3.6ST23R	N-CH Open Drain	3.6V	T	SOT-23	3,000 Units / Reel
GM5510N-4.0ST23R	N-CH Open Drain	4.0V	X	SOT-23	3,000 Units / Reel
GM5510N-4.1ST23R	N-CH Open Drain	4.1V	Y	SOT-23	3,000 Units / Reel
GM5510N-4.2ST23R	N-CH Open Drain	4.2V	Z	SOT-23	3,000 Units / Reel
GM5510N-1.8ST89R	N-CH Open Drain	1.8V	18	SOT89	1,000 Units / Reel
GM5510N-2.0ST89R	N-CH Open Drain	2.0V	20	SOT89	1,000 Units / Reel
GM5510N-2.7ST89R	N-CH Open Drain	2.7V	27	SOT89	1,000 Units / Reel
GM5510N-2.9ST89R	N-CH Open Drain	2.9V	29	SOT89	1,000 Units / Reel
GM5510N-3.0ST89R	N-CH Open Drain	3.0V	30	SOT89	1,000 Units / Reel
GM5510N-3.08ST89R	N-CH Open Drain	3.08V	31	SOT89	1,000 Units / Reel
GM5510N-3.3ST89R	N-CH Open Drain	3.3V	33	SOT89	1,000 Units / Reel
GM5510N-3.6ST89R	N-CH Open Drain	3.6V	36	SOT89	1,000 Units / Reel
GM5510N-4.0ST89R	N-CH Open Drain	4.0V	40	SOT89	1,000 Units / Reel
GM5510N-4.1ST89R	N-CH Open Drain	4.1V	41	SOT89	1,000 Units / Reel
GM5510N-4.2ST89R	N-CH Open Drain	4.2V	42	SOT89	1,000 Units / Reel

## Ordering Information – Green Products

Ordering Number	Output Configuration	Detect Voltage	Voltage Suffix	Package	Shipping
GM5510C-1.8ST23RG	CMOS	1.8V	C	SOT-23	3,000 Units / Reel
GM5510C-2.0ST23RG	CMOS	2.0V	E	SOT-23	3,000 Units / Reel
GM5510C-2.7ST23RG	CMOS	2.7V	K	SOT-23	3,000 Units / Reel
GM5510C-2.9ST23RG	CMOS	2.9V	M	SOT-23	3,000 Units / Reel
GM5510C-2.93ST23RG	CMOS	2.93V	S	SOT-23	3,000 Units / Reel
GM5510C-3.0ST23RG	CMOS	3.0V	N	SOT-23	3,000 Units / Reel
GM5510C-3.08ST23RG	CMOS	3.08V	P	SOT-23	3,000 Units / Reel
GM5510C-3.3ST23RG	CMOS	3.3V	Q	SOT-23	3,000 Units / Reel
GM5510C-3.6ST23RG	CMOS	3.6V	T	SOT-23	3,000 Units / Reel
GM5510C-4.0ST23RG	CMOS	4.0V	X	SOT-23	3,000 Units / Reel
GM5510C-4.1ST23RG	CMOS	4.1V	Y	SOT-23	3,000 Units / Reel
GM5510C-4.2ST23RG	CMOS	4.2V	Z	SOT-23	3,000 Units / Reel
GM5510C-1.8ST89RG	CMOS	1.8V	18	SOT89	1,000 Units / Reel
GM5510C-2.0ST89RG	CMOS	2.0V	20	SOT89	1,000 Units / Reel
GM5510C-2.7ST89RG	CMOS	2.7V	27	SOT89	1,000 Units / Reel
GM5510C-2.9ST89RG	CMOS	2.9V	29	SOT89	1,000 Units / Reel
GM5510C-3.0ST89RG	CMOS	3.0V	30	SOT89	1,000 Units / Reel
GM5510C-3.08ST89RG	CMOS	3.08V	31	SOT89	1,000 Units / Reel
GM5510C-3.3ST89RG	CMOS	3.3V	33	SOT89	1,000 Units / Reel
GM5510C-3.6ST89RG	CMOS	3.6V	36	SOT89	1,000 Units / Reel
GM5510C-4.0ST89RG	CMOS	4.0V	40	SOT89	1,000 Units / Reel
GM5510C-4.1ST89RG	CMOS	4.1V	41	SOT89	1,000 Units / Reel
GM5510C-4.2ST89RG	CMOS	4.2V	42	SOT89	1,000 Units / Reel

## Ordering Information – Green Products (continued)

Ordering Number	Output Configuration	Detect Voltage	Voltage Suffix	Package	Shipping
GM5510N-1.8ST23RG	N-CH Open Drain	1.8V	C	SOT-23	3,000 Units / Reel
GM5510N-2.0ST23RG	N-CH Open Drain	2.0V	E	SOT-23	3,000 Units / Reel
GM5510N-2.7ST23RG	N-CH Open Drain	2.7V	K	SOT-23	3,000 Units / Reel
GM5510N-2.9ST23RG	N-CH Open Drain	2.9V	M	SOT-23	3,000 Units / Reel
GM5510N-2.93ST23RG	N-CH Open Drain	2.93V	S	SOT-23	3,000 Units / Reel
GM5510N-3.0ST23RG	N-CH Open Drain	3.0V	N	SOT-23	3,000 Units / Reel
GM5510N-3.08ST23RG	N-CH Open Drain	3.08V	N	SOT-23	3,000 Units / Reel
GM5510N-3.3ST23RG	N-CH Open Drain	3.3V	Q	SOT-23	3,000 Units / Reel
GM5510N-3.6ST23RG	N-CH Open Drain	3.6V	T	SOT-23	3,000 Units / Reel
GM5510N-4.0ST23RG	N-CH Open Drain	4.0V	X	SOT-23	3,000 Units / Reel
GM5510N-4.1ST23RG	N-CH Open Drain	4.1V	Y	SOT-23	3,000 Units / Reel
GM5510N-4.2ST23RG	N-CH Open Drain	4.2V	Z	SOT-23	3,000 Units / Reel
GM5510N-1.8ST89RG	N-CH Open Drain	1.8V	18	SOT89	1,000 Units / Reel
GM5510N-2.0ST89RG	N-CH Open Drain	2.0V	20	SOT89	1,000 Units / Reel
GM5510N-2.7ST89RG	N-CH Open Drain	2.7V	27	SOT89	1,000 Units / Reel
GM5510N-2.9ST89RG	N-CH Open Drain	2.9V	29	SOT89	1,000 Units / Reel
GM5510N-3.0ST89RG	N-CH Open Drain	3.0V	30	SOT89	1,000 Units / Reel
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GM5510N-3.3ST89RG	N-CH Open Drain	3.3V	33	SOT89	1,000 Units / Reel
GM5510N-3.6ST89RG	N-CH Open Drain	3.6V	36	SOT89	1,000 Units / Reel
GM5510N-4.0ST89RG	N-CH Open Drain	4.0V	40	SOT89	1,000 Units / Reel
GM5510N-4.1ST89RG	N-CH Open Drain	4.1V	41	SOT89	1,000 Units / Reel
GM5510N-4.2ST89RG	N-CH Open Drain	4.2V	42	SOT89	1,000 Units / Reel