

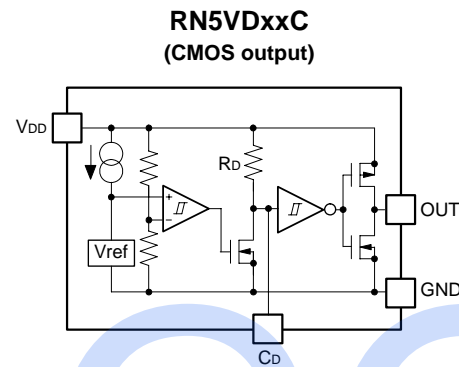
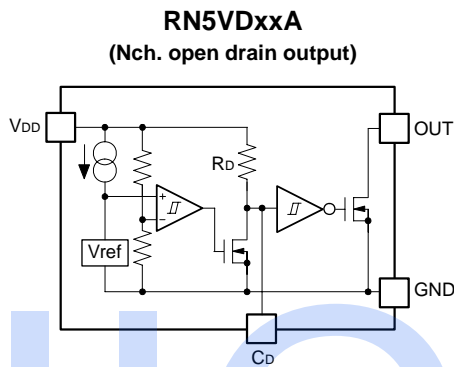
Low Input VD with Delay Function

The RN5VD Series are CMOS-based voltage detector ICs with the built-in output delay circuit, which can operate at low voltage. The delay time can be set with an external capacitor.

FEATURES

- Supply Current (I_{SS1}) Typ. 1 μ A ($V_{DD} = -V_{DET} + 2V$, RN5VD15x)
- Operating Voltage Range (V_{DD}) 0.7V to 10.0V ($T_{opt} = 25^{\circ}C$)
- Detector Threshold Range ($-V_{DET}$) 0.9V to 6.0V (internally fixed)
- Output Delay Typ. 100ms delay set with a 0.15 μ F external capacitor
- Reset Signal "L"
- Detector Threshold Accuracy $\pm 2.5\%$
- Temp. coeff. of Detector Threshold... Typ. $\pm 100ppm/^{\circ}C$
- Two Output Types Nch. Open Drain and CMOS
- Package SOT-23-5

BLOCK DIAGRAMS



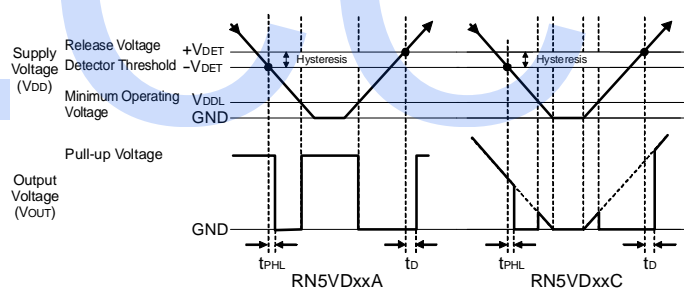
SELECTION GUIDE

Package	Quantity per Reel	Part No.
SOT-23-5	3,000 pcs	RN5VDxx*A-TR-F

xx : Specify the detector threshold within the range 0.9V (09) to 6.0V (60) in 0.1V steps.

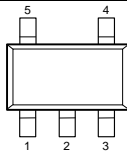
* : Select the output type from (A) Nch. open drain or (C) CMOS.

TIMING CHART



PACKAGE (Top View)

SOT-23-5



1	OUT
2	V _{DD}
3	GND
4	NC
5	C _D

HOW TO DETERMINE DELAY TIME

Letting the capacity of an external capacitor C_D (F), the delay time (t_D) is found from the following equation:

$$t_D = 0.69 \times 10^6 \times C_D \text{ (s)}$$

APPLICATIONS

- Microcontroller and logic circuit reset
- Battery checker
- Window comparator
- Wave shaping circuit
- Battery back-up circuit
- Power failure detector



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■ Ricoh awarded ISO 14001 certification.
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RICOH COMPANY, LTD. Electronic Devices Company

● **Shin-Yokohama office (International Sales)**
3-2-3, Shin-Yokohama, Kohoku-ku, Yokohama City, Kanagawa 222-8530, Japan
Phone: +81-45-477-1697 Fax: +81-45-477-1698

RICOH EUROPE (NETHERLANDS) B.V.

● **Semiconductor Support Centre**
Prof. W.H.Keesomlaan 1, 1183 DL Amstelveen, The Netherlands
P.O.Box 114, 1180 AC Amstelveen
Phone: +31-20-5474-309 Fax: +31-20-5474-791

RICOH ELECTRONIC DEVICES KOREA Co., Ltd.

11 floor, Haesung 1 building, 942, Daechidong, Gangnamgu, Seoul, Korea
Phone: +82-2-2135-5700 Fax: +82-2-2135-5705

RICOH ELECTRONIC DEVICES SHANGHAI Co., Ltd.

Room403, No.2 Building, 690#Bi Bo Road, Pu Dong New district, Shanghai 201203,
People's Republic of China
Phone: +86-21-5027-3200 Fax: +86-21-5027-3299

RICOH COMPANY, LTD. Electronic Devices Company

● **Taipei office**
Room109, 10F-1, No.51, Hengyang Rd., Taipei City, Taiwan (R.O.C.)
Phone: +886-2-2313-1621/1622 Fax: +886-2-2313-1623



Ricoh completed the organization of the Lead-free production for all of our products. After Apr. 1, 2006, we will ship out the lead free products only. Thus, all products that will be shipped from now on comply with RoHS Directive.