

36V Input VD with Delay Function or SENSE pin

The R3150N Series are CMOS-based 36V input voltage detector ICs. Since the maximum input voltage of R3150N is 36V (absolute maximum rating: 50V) and R3150N has high voltage accuracy and low supply current, it is suitable for car battery voltage supervisor. There are two versions: A/B versions provide V_{DD} pin detection and E/F versions provide SENSE pin detection. Detector threshold and Release voltage can be specified separately. Both the detector threshold accuracy and the release voltage accuracy are $\pm 1.5\%$. The detect output delay time and the release output delay time (Power-on Reset Time) can be set by a pin. The output types are Nch open drain "L" output and Nch open drain "H" output. SOT-23-6 package is available.

*) These products are suitable for automotive applications too. Please refer to our "Car Electronics Products Catalog" or contact us.

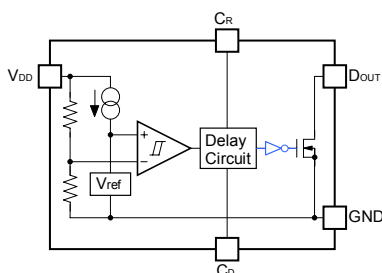
FEATURES

- Supply Current (I_{SS}) Typ. $3.8\mu A$ (at release / at detect) (A/B Version)
Typ. $3.5\mu A$ (at release / at detect) (E/F Version)
- Operating Voltage Range (V_{DD}) 1.4V to 36.0V (A/B Version)
3.6V to 6.0V (E/F Version)
- SENSE Pin Input Voltage Range (V_{SENSE}) Max. 36.0V (E/F Version)
- Detector Threshold Range ($-V_{DET}$) 5.0V to 10.0V (internally fixed)
- Detector Threshold Accuracy $\pm 1.5\%$
- Detect Output Delay Typ. 10ms delay set with a $0.01\mu F$ external capacitor
- Release Voltage Range ($+V_{DET}$) 5.3V to 11.0V (internally fixed)
- Release Voltage Accuracy $\pm 1.5\%$
- Release Output Delay Typ. 10ms delay set with a $0.01\mu F$ external capacitor
- Reset Signal "L" (A/E Version),
"H" (B/F Version)
- Output Type Nch. Open Drain
- Package SOT-23-6

(The above shows specification at $T_{opt}=25^\circ C$. Design assurance value at $-40^\circ C \leq T_{opt} \leq 105^\circ C$ is also available. For details, please refer to the datasheet.)

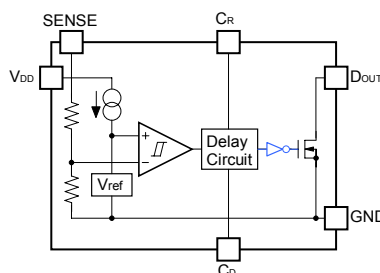
BLOCK DIAGRAMS

R3150NxxxA/B
(V_{DD} pin detection)



Blue line: only R3150NxxxB

R3150NxxxE/F
(SENSE pin detection)



Blue line: only R3150NxxxF

SELECTION GUIDE

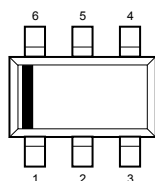
Halogen Free	Package	Q'ty per Reel	Part No.
H/F	SOT-23-6	3,000 pcs	R3150Nxxx* -TR-JE

xxx : Specify a combination of detector threshold voltage and released Voltage using serial numbers.

* : Select from (A) V_{DD} pin detection type "L" Output, (B) V_{DD} pin detection type "H" Output, (E) SENSE pin detection type "L" Output, or (F) SENSE pin detection type "H" Output.

PACKAGE (Top View)

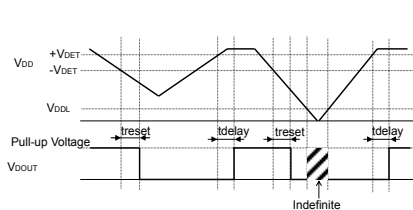
SOT-23-6



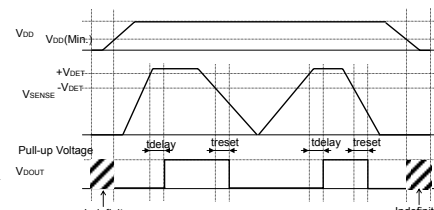
1	C_D
2	C_R
3	NC (A/B), SENSE (E/F)
4	V_{DD}
5	GND
6	DOUT

TIMING CHART

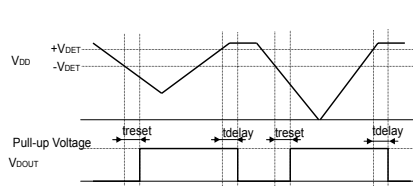
R3150NxxxA



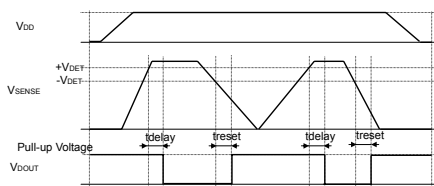
R3150NxxxE



R3150NxxxB



R3150NxxxF



APPLICATIONS

- Microcontroller and logic circuit reset
- Battery back-up circuit
- Battery checker
- Power failure detector for digital home appliances



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■ Ricoh presented with the Japan Management Quality Award for 1999.
Ricoh continually strives to promote customer satisfaction, and shares the achievements of its management quality improvement program with people and society.



■ Ricoh awarded ISO 14001 certification.

The Ricoh Group was awarded ISO 14001 certification, which is an international standard for environmental management systems, at both its domestic and overseas production facilities. Our current aim is to obtain ISO 14001 certification for all of our business offices.

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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.