

Low Voltage Detector with SENSE pin

The R3117x Series are CMOS-based voltage detector ICs that can operate at low voltage. Since R3117x has a SENSE pin for monitoring voltage separately from the power pin, its reset signal does not become unstable as long as power supply is secured and the "L" can be maintained.

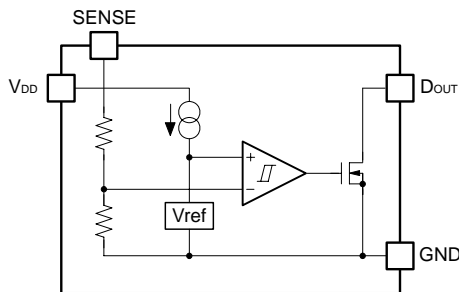
FEATURES

- Supply Current (I_{SS}) Typ. 0.29 μ A ($V_{SENSE} = -V_{DET} \times 1.1$)
- Operating Voltage Range (V_{DD}) 1.0V to 6.0V
- Detector Threshold Range ($-V_{DET}$) 0.7V to 5.0V (internally fixed)
- Reset Signal "L"
- Detector Threshold Accuracy $\pm 1\%$
- Temp. coeff. of Detector Threshold Typ. ± 30 ppm/ $^{\circ}$ C
- Output Type Nch. Open Drain and CMOS
- Packages DFN(PLP)1010-4, SC-88A, SOT-23-5

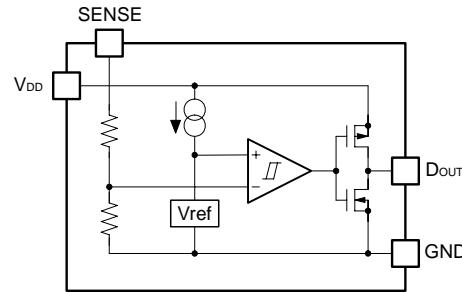
(The above shows specification at $T_{opt} = 25^{\circ}$ C. Design assurance value at -40° C $\leq T_{opt} \leq 85^{\circ}$ C is also available. For details, please refer to the datasheet.)

BLOCK DIAGRAMS

R3117xxxxA
(Nch. open drain output)



R3117xxxxC
(CMOS output)



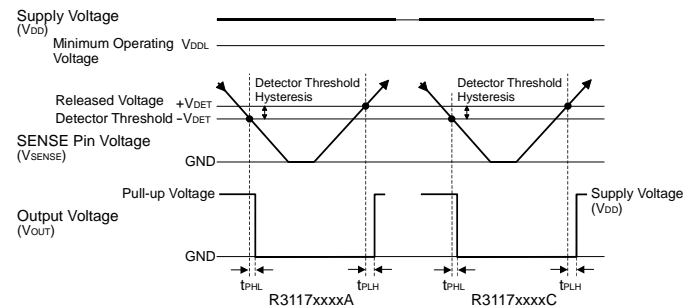
SELECTION GUIDES

Package	Quantity per Reel	Part No.
DFN(PLP)1010-4	10,000 pcs	R3117Kxx1* -TR
SC-88A	3,000 pcs	R3117Qxx2* -TR-F
SOT-23-5	3,000 pcs	R3117Nxx1* -TR-F

xx : Specify the detector threshold within 0.7V (07) to 5.0V (50) in 0.1V steps.

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

TIMING CHART



PACKAGES

DFN(PLP)1010-4		SC-88A	SOT-23-5
Top View	Bottom View		
1 DOUT	2 SENSE	1 VDD	1 DOUT
2 SENSE	3 GND	2 NC	2 VDD
3 GND	4 VDD	3 GND	3 GND
4 VDD		4 SENSE	4 NC
		5 DOUT	5 SENSE

*) The tab is substrate level (GND).

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 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.