

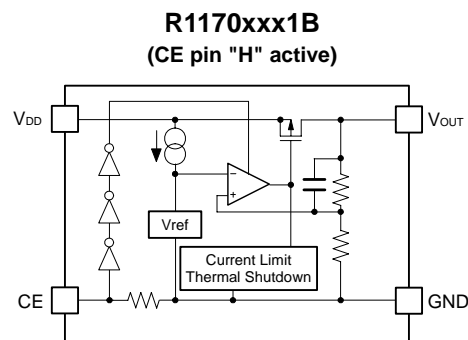
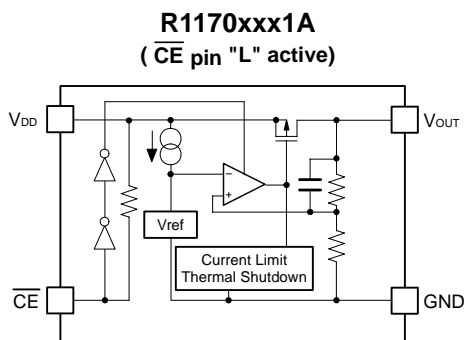
The R1170x Series are CMOS-based LDO regulators featuring 800mA output.

The CMOS process provides both high output current and low supply current. The dropout voltage is significantly lower than bipolar regulators. The CE pin can switch the regulator into standby mode. In addition to a fold-back protection circuit built into conventional LDO regulators, R1170x has a thermal shutdown circuit. Ceramic capacitors can be used.

FEATURES

- Supply Current (I_{SS})Typ. 80 μ A ($V_{IN}=\text{SET } V_{OUT}+1\text{V}$)
- Standby Current ($I_{standby}$)Typ. 0.1 μ A ($V_{IN}=6\text{V}$, in standby)
- Dropout Voltage (V_{DIF})Typ. 0.12V ($I_{OUT}=300\text{mA}$, $V_{OUT}=2.8\text{V}$)
- Ripple Rejection (RR)Typ. 50dB ($f=1\text{kHz}$)
- Input Voltage Range (V_{IN})Max. 6.0V
- Output Voltage Range (V_{OUT})1.5V to 5.0V (internally fixed)
- Output Voltage Accuracy $\pm 2\%$
- Temp. coeff. of Output VoltageTyp. $\pm 100\text{ppm}/^\circ\text{C}$
- Line RegulationTyp. 0.05%/V
- Fold-back Protection CircuitCurrent limit Typ. 40mA
- Thermal Shutdown CircuitStops at 150 $^\circ\text{C}$
- PackagesHSON-6, SOT-89-5, HSOP-6J
- Ceramic capacitors can be used. ...10 μ F or more

BLOCK DIAGRAMS



SELECTION GUIDES

Package	Quantity per Reel	Part No.
HSON-6	3,000 pcs	R1170Dxx1*-TR-F
SOT-89-5	1,000 pcs	R1170Hxx1*-T1-F
HSOP-6J	1,000 pcs	R1170Sxx1*-E2-F

xx : Specify the output voltage within the range 1.5V (15) to 5.0V (50) in 0.1V steps.

* : Select the polarity of the CE pin from (A) "L" active or (B) "H" active.

PACKAGES (Top View)

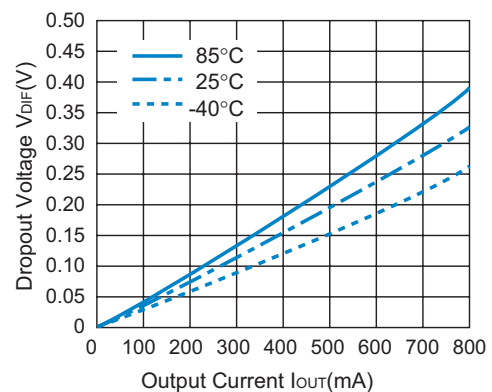
HSON-6		SOT-89-5		HSOP-6J	
1	V_{OUT}^{*1}	1	$\overline{\text{CE}}$ or CE	1	V_{OUT}
2	V_{OUT}^{*1}	2	GND	2	GND
3	$\overline{\text{CE}}$ or CE	3	NC	3	CE or CE
4	GND	4	V_{DD}	4	NC
5	V_{DD}^{*1}	5	V_{OUT}	5	GND
6	V_{DD}^{*1}			6	V_{DD}

*) The tab and tab suspension leads on back side are substrate level (GND).

*1) The V_{OUT} pin and V_{DD} pin must be wired each other when it is mounted on board.

TYPICAL CHARACTERISTIC

R1170x301B Dropout Voltage vs. Output Current



APPLICATIONS

- Power source for hand-held communication equipment, cameras, and VCRs
- Power source for home appliances and digital home appliances
- Power source for laptop personal computers
- Power source for battery-powered equipment



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■ 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.