

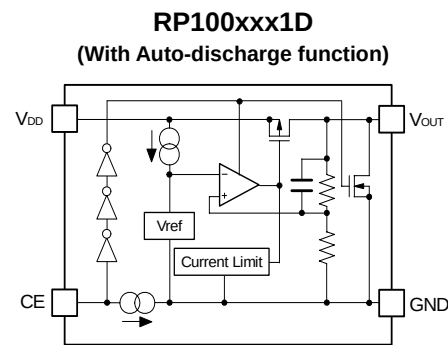
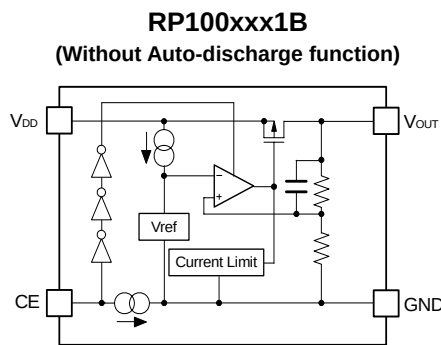
Low Noise 0.6% Accuracy 200mA LDO

The RP100x Series are CMOS-based LDO regulators featuring 200mA output. RP100x features supply current as low as 18μA, which is far lower than existing lines. Due to a built-in 0.87Ω (at V_{SET}=2.8V) on-resistor, RP100x can provide a low dropout voltage. RP100x also features an excellent line transient response, ripple rejection at 75dB, and low noise. The output voltage accuracy is as high as ±0.6% and the temperature drift coefficient of output voltage is low at ±30ppm/°C.

FEATURES

- Supply Current (I_{SS}) Typ. 18μA (V_{IN}=V_{SET}+1.0V)
- Standby Current (I_{standby}) Typ. 0.1μA (Same as above, CE="L")
- Dropout Voltage (V_{DIF}) Typ. 0.13V (I_{OUT}=150mA, V_{SET}=2.8V)
- Ripple Rejection (RR) Typ. 75dB (f=1kHz)
- Input Voltage Range (V_{IN}) 1.7V to 5.25V
- Output Voltage Range (V_{OUT}) 1.2V to 3.3V (Internally fixed)
- Output Voltage Accuracy ±0.6%
- Temp. coeff. of Output Voltage Typ. ±30ppm/°C
- Line Regulation Typ. 0.02%/V
- Fold-back Protection Circuit Current limit Typ. 40mA
- Auto-discharge Function D Version
- Packages DFN(PLP)1612-4, SOT-23-5
- Ceramic capacitors can be used. ...1μF or more

BLOCK DIAGRAMS



SELECTION GUIDES

Halogen Free	Package	Q'ty per Reel	Part No.
H/F	DFN(PLP)1612-4	5,000 pcs	RP100Kxx1*-TR
H/F	SOT-23-5	3,000 pcs	RP100Nxx1*-TR-FE

xx : Specify the output voltage within the range of 1.2V (12) to 3.3V (33) in 0.1V steps.

* : Select from (B) without auto-discharge function or (D) with auto-discharge function.

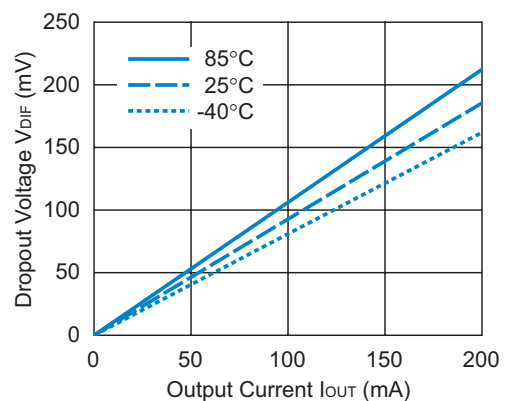
PACKAGES (Top View)

DFN(PLP)1612-4	SOT-23-5																		
<table> <tr><td>1</td><td>V_{OUT}</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>CE</td></tr> <tr><td>4</td><td>V_{DD}</td></tr> </table>	1	V _{OUT}	2	GND	3	CE	4	V _{DD}	<table> <tr><td>1</td><td>V_{DD}</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>CE</td></tr> <tr><td>4</td><td>NC</td></tr> <tr><td>5</td><td>V_{OUT}</td></tr> </table>	1	V _{DD}	2	GND	3	CE	4	NC	5	V _{OUT}
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*) The tab is substrate level (GND).

TYPICAL CHARACTERISTIC

RP100x281x Dropout Voltage vs. Output Current



APPLICATIONS

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



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For the conservation of the global environment, Ricoh is advancing the decrease of the negative environmental impact material.
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. Basically after Apr. 1, 2012, we will ship out the Power Management ICs of the Halogen Free products only. (RicoH Halogen Free products are also Antimony Free.)

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