

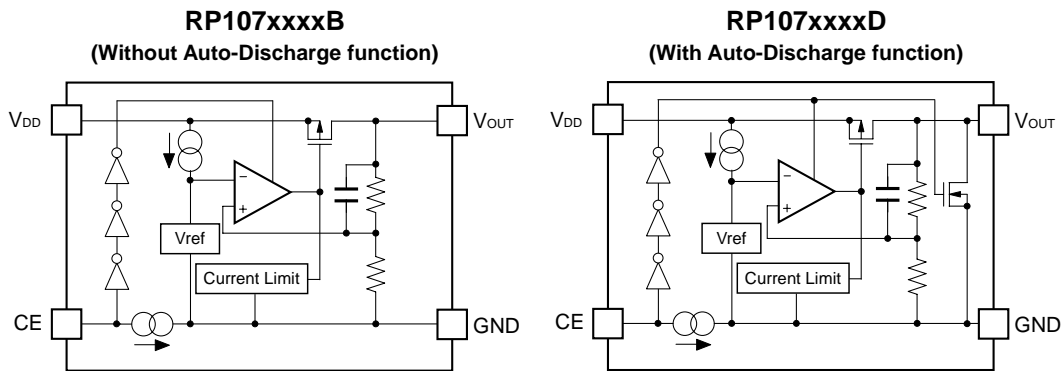
Output Capacitor-less 200mA LDO

The RP107x Series are CMOS-based LDO regulators featuring 200mA output. Since the output capacitor and noise bypass capacitor are able to be reduced and the packages are small DFN(PLP)1212-6, WLCS-4-P5, and SC-88A, high density mounting on boards are possible. The input voltage (V_{IN}) is as low as Min.1.4V and the output voltage can be set from 1.0V. Supply current is as low as 9.5 μ A compared to existing lines. The CE pin can switch the regulator to standby mode.

FEATURES

- Supply Current (I_{SS}) Typ. 9.5 μ A ($I_{OUT}=0$ mA)
- Standby Current ($I_{standby}$) Typ. 0.1 μ A (In standby)
- Dropout Voltage (V_{DIF}) Typ. 0.27V ($I_{OUT}=200$ mA, $V_{OUT}=2.8$ V)
- Ripple Rejection (RR) Typ. 60dB ($f=1$ kHz, $V_{OUT}>2.5$ V)
- Input Voltage Range (V_{IN}) 1.4V to 5.25V
- Output Voltage Range (V_{OUT}) 1.0V to 4.2V (internally fixed)
- Output Voltage Accuracy $\pm 1\%$
- Temp. coeff. of Output Voltage Typ. ± 100 ppm/ $^{\circ}$ C
- Line Regulation Typ. 0.02%/V
- Fold-back Protection Circuit Current limit Typ. 50mA
- Constant Slope Circuit
- Auto-Discharge function D Version
- Packages WLCS-4-P5, DFN(PLP)1212-6, SC-88A, SOT-23-5

BLOCK DIAGRAMS



SELECTION GUIDES

Halogen Free	Package	Q'ty per Reel	Part No.
H/F	WLCS-4-P5	5,000 pcs	RP107Zxx1*-TR-F
H/F	DFN(PLP)1212-6	5,000 pcs	RP107Kxx1*-TR
H/F	SC-88A	3,000 pcs	RP107Qxx2*-TR-FE
H/F	SOT-23-5	3,000 pcs	RP107Nxx1*-TR-FE

xx : Specify the output voltage within the range of 1.0V (10) to 4.2V (42) in 0.1V steps.

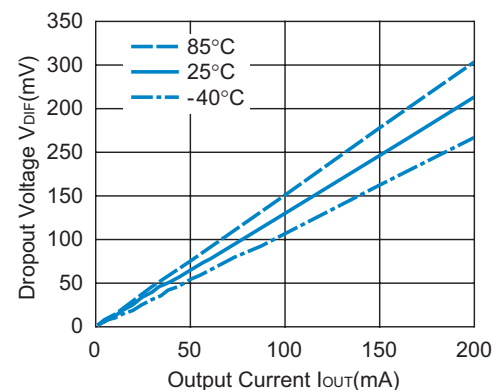
* : Select from (B) without auto-discharge function or (D) with auto-discharge function

PACKAGES (Top View)

WLCS-4-P5	DFN(PLP)1212-6	SC-88A	SOT-23-5
1 V _{DD}	1 NC	1 CE	1 V _{DD}
2 CE	2 GND	2 NC	2 GND
3 GND	3 CE	3 GND	3 CE
4 V _{OUT}	4 V _{DD}	4 V _{OUT}	4 NC
	5 NC	5 V _{DD}	5 V _{OUT}
	6 V _{OUT}		

TYPICAL CHARACTERISTIC

RP107x30xx Dropout Voltage vs. Output Current



APPLICATIONS

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



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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.